2020. 11 제38권 제2호
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한국물리학회 회보

2020 KPS Fall Meeting

2020년 가을 학술논문발표회 및 임시총회

2020년 11월 4일(수)~6일(금)

Virtual Conference

KPS 한국물리학회 The Korean Physical Society

Contents

이번 호의 표지는 김요셉 (공동 제1저자), Yong Siah Teo (공동 제1저자), 안대건, 임동길, 조영욱, 정현석, 김윤호 회원의 최근 논문 Universal Compressive Characterization of Quantum Dynamics, Phys. Rev. Lett. 124, 210401 (2020) 에서 모티브를 채택했다. 이 논문에서는 효율적이고 신뢰할 수 있는 양자 채널 진단을 위한 적응형 압축센싱 방법을 제안하고 이를 실험으로 시연하였다. 이번 가을학술논문발표회 B11-ap 세션에서 김요셉 회원이 관련 주제에 대해서 발표할 예정(**B11.02**)이다.

등록 및 발표장 안내(Registration & Conference Room)

1. Epitome

Any KPS members can download the pdf files on the KPS homepage. (http://www.kps.or.kr)

2. Membership & Registration Fee

Category		Fee (KRW)	Category		Fee (KRW)
Registration	Fellow/Regular member	130,000	Subscription (Fellow/Regular member)	1 journal	80,000
	Student member	70,000		2 journals	120,000
	Nonmember (general)	300,000			
	Nonmember (invited speaker or student)	150,000	Subscription (Student member)	1 journal	40,000
Membership	Fellow	100,000		2 journals	60,000
	Regular member	50,000			
	Student member	20,000	Enrolling fee	New member	10,000

3. Virtual Conference Rooms

Division	Oral sessions (Zoom rooms)	Poster sessions	Special sessions (Zoom rooms)
Particle and Field Physics	01, 02	Virtual Poster rooms (Nov. 2~Nov. 6) On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:000-14:50	• General Assembly: 20 • KPS Fellow Meeting: 20 • NPSM Senior Invited Lecture: 20 • Heavy Ion Accelerator Complex, RAON: 19 • Computational science: 20 • New accelerator: 20 • KPS-KOFWST Young Researcher Award: 20 • APCTP Authors Lectures: 20 • [APCTP-KPS-JPS Meeting] Distinguished Lectures
Nuclear Physics	03		
Condensed Matter Physics	05, 06, 07, 08		
Applied Physics	09, 10, 11		
Statistical Physics	12		
Physics Teaching	13		
Plasma Physics	14		
Optics and Quantum Electonics	15		
Atomic and Molecular Physics	16		
Semiconductor Physics	17, 18		
Astrophysics	04		
Biological Physics	19		

4. Oral Presentations

- All oral sessions will be essentially virtual meetings and conducted via Zoom.
- You should pre-record your video presentation, which will be broadcasted online during the scheduled time. (Q&A will be conducted in real time. An invited speaker has an option to deliver his/her presentation in real time.)
- Please adhere to the time limit for your presentation, which includes setup, presentation, and Q&A: 12 minutes for a contributed talk and 24 (or 36) minutes for an invited talk.

5. Poster Presentations

- All poster sessions will be essentially virtual meetings and are accessible online at the KPS homepage during the Conference (Nov. 2, 12:00 ~ Nov. 6, 18:00).
- All presenters are required to attend the e-Poster Online Discussion Sessions, scheduled on Nov. 5 and 6, and answer the questions through the comment window.

Session	Date and Time	Presentation Method
e-Poster Release	Nov. 2(Mon.) - Nov. 6(Fri.)	Poster presenters daily check the comments on their presentation.
e-Poster Online Discussion	Nov. 5(Thu.) 13:00-13:50 Nov. 6(Fri.) 14:00-14:50	Poster presenters must attend and reply to the questions.

6. Best Presentation Awards

- The Best Presentation Awards recognize outstanding presentations made by student members and are awarded by the KPS in order to encourage students to carry out excellent research.
- The Best Poster Presentation Awardee will be selected based on scientific significance and excellence of presentation and online discussion.
- Every awardee will be posted in the KPS homepage for recognition just after the Conference and a certificate will be mailed to the presenter according to the mailing address of the corresponding author.

7. No-Show Policy

- Presenters who do not submit the presentation materials within the deadline or do not present at the session without a call to cancel (contact info: abstracts@kps.or.kr, 02-556-4737(ext. 5)) are considered No-Show.
- In case of No-Show, the corresponding abstract will be eliminated from the program list. Presenters who No-Show may see limitations to present at the KPS meetings in the future.

Program for 2020 KPS Fall Meeting

Virtual Conference (Nov. 4-6, 2020)

Day	Session	Particle phys		Nuclear phys	Astrophys	Condensed matter phys				Applied phys			Statistical phys	Physics teaching	Plasma phys	Optical phys	Atomic & molecular phys	Semiconductor phys		Biological physics		Special Sessions and KPS Events
	Division / Session	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19		20
Nov. 4 (Wed.)	**Session A** 13:00~14:48	**A1-pa** High Energy Phenomenology	**A2-pa** Accelerator I	**A3-nu** Nucl. Exp.		**A5-co** [F] Symmetry-manipulated oxides I	**A6-co** [F] Berry/ Topology/ Spin I	**A7-co** [F] Ultimate X-ray	**A8-co** Superconductivity	**A9-ap** [F] BN Nanomat. I	**A10-ap** Oxide / Energy Mater.		**A12-st** [F] Covid19 Outbreak I			**A15-op** [F] Colloidal Plasmonics & Metamaterials I						**A20-or** NPSM Senior Invited Lecture
	Break 14:48~15:00																					
	Session B 15:00~16:48		**B2-pa** Accelerator II	**B3-nu** Nucl. Exp. & HIC	**B4-as** [F] KNO	**B5-co** [F] Symmetry-manipulated oxides II	**B6-co** [F] Berry/ Topology/ Spin II	**B7-co** [F] vdW superconductors	**B8-co** Magnetism/ Superconductivity	**B9-ap** [F] BN Nanomat. II	**B10-ap** Magnetism / Energy Mater.	**B11-ap** Quantum information and processing	**B12-st** [F] Covid19 Outbreak II			**B15-op** [F] Colloidal Plasmonics & Metamaterials II				**B19-or** Heavy Ion Accelerator Complex		**B20-or** computational science
	Break 16:48~17:10																					
	17:10~18:10				**T1-as** [T] Dark Energy and Universe	**T2-co** [T] Condensed Matter Physics				**T3-ap** [T] First-principles Modeling					**T4-pl** [T] Plasma fluid/ kinetic theory							**General Assembly** (17:10-18:10)
	18:10~18:40																					**KPS Fellow Meeting** (18:10-18:40)
Nov. 5 (Thu.)	**Session C** 09:00~10:48	**C1-pa** [F] Future collider I		**C3-nu** HIC		**C5-co** [F] Excitons	**C6-co** [F] High-pressure I	**C7-co** Dielectric/ Functional Oxides	**C8-co** Magnetism	**C9-ap** [F] Quantum info. processing	**C10-ap** [F] Direct visualization of defects	**C11-ap** [F] Next-generation display tech.	**C12-st** Complex System I		**C14-pl** Accelerator, Beam, Laser, Radiation sources	**C15-op** Optics I		**C17-se** [F] Future Optoelectronic	**C18-se** Devices - electronic			
	Break 10:48~11:10																					
	Session PL 11:10~12:00	**PL1-or Plenary**																				
	Lunch Break 12:00~13:00																					
	Session P1 13:00~13:50	**e-Poster On-line Discussion - I**																				
	Break 13:50~14:00																					
	Session D 14:00~15:48	**D1-pa** [F] Future collider II	**D2-pa** Non-accelerator I	**D3-nu** [F] Phys. of CENuM	**D4-as** Astrophysics Exp./Obs.	**D5-co** [F] Quantum Coherence	**D6-co** [F] High-pressure II	**D7-co** [F] Spin-orbitronics	**D8-co** Strongly Correlated I	**D9-ap** [F] Frontiers of CAP I	**D10-ap** [F] Magnetic 2D Mat.	**D11-ap** [F] Organic electronics	**D12-st** Complex Systems II		**D14-pl** [F] Advanced Accelerators & Radiation Sources	**D15-op** [F] Quantum computing & simulation I	**D16-at** [F] Atomic Sensors I	**D17-se** [F] Organic – inorganic photovoltaic	**D18-se** Devices - energy	**D19-bp** Biological physics I	**e-Poster Session (Nov. 2-6)**	**D20-or** Status and future outlook of new accelerator
	Break 15:48~16:10																					
	Session E 16:10~17:58	**E1-pa** [F] Future Collider III	**E2-pa** Field and String theory	**E3-nu** Nucl. Reac. & Str.	**E4-as** Astrophysics Exp./Obs. and Th.	**E5-co** [F] Graphene and Topological Materials	**E6-co** [F] High-pressure III	**E7-co** [F] Synchrotron x-ray studies I	**E8-co** Strongly Correlated II	**E9-ap** [F] Frontiers of CAP II	**E10-ap** [F] Chiral Magnetism and Topology	**E11-ap** Energy and bio materials	**E12-st** Phase Trans Crit Pheno		**E14-pl** Nuclear Fusion & Basic Plasma	**E15-op** [F] Quantum computing & simulation II	**E16-at** [F] Atomic Sensors II	**E17-se** [F] Future Optoelectronic	**E18-se** nano-materials	**E19-bp** Biological physics II		**E20-or** KPS-KOFWST Young Researcher Award
	17:58~																					**W20-or** APCTP Authors Lectures
Nov. 6 (Fri.)	**Session F** 09:00~10:48	**F1-pa** Non-accelerator II	**F2-pa** Accelerator III	**F3-nu** [F] APCTP-KPS-JPS: Strong QCD and Hadrons	**F4-as** [F] APCTP-KPS-JPS: Astroph. I	**F5-co** [F] APCTP-KPS-JPS: New trends I	**F6-co** Nano-Meso/ Surf-Interf I	**F7-co** [F] Synchrotron x-ray studies II	**F8-co** Condensed Matter Computational I	**F9-ap** Surf. and Interface	**F10-ap** 2D materials I		**F12-st** Nonequilibrium systems	**F13-te** [F] Physics teacher education	**F14-pl** [F] Basic Fusion R&D Program I	**F15-op** [F] Integrated photonics I	**F16-at** AMO I	**F17-se** [F] Nano-optical characterizations I	**F18-se** Nitride & oxide			
	Break 10:48~11:10																					
	Session G 11:10~12:58	**G1-pa** [F] APCTP-KPS-JPS: Xe1T	**G2-pa** Accelerator IV	**G3-nu** Had. Phys. & Nucl. Astrophys.	**G4-as** [F] APCTP-KPS-JPS: Astroph. II	**G5-co** [F] APCTP-KPS-JPS: New trends II	**G6-co** Nano-Meso /Surf-Interf II	**G7-co** [F] Synchrotron x-ray studies III	**G8-co** Condensed Matter Computational II	**G9-ap** [F] 100th Anniversary Ferroelectricity I	**G10-ap** 2D materials II		**G12-st** Granular-SoftMat-Biophys	**G13-te** [F] Changes due to IT technology	**G14-pl** [F] Basic Fusion R&D Program II	**G15-op** [F] Integrated photonics II	**G16-at** AMO II	**G17-se** [F] Nano-optical characterizations II	**G18-se** Semiconductor growth	**G19-bp** [F] Comp. Biophysics		
	Lunch Break 12:58~14:00																					
	Session P2 14:00~14:50	**e-Poster On-line Discussion - II**																				
	Break 14:50~15:00																					
	Session H 15:00~16:48	**H1-pa** Non-accelerator III	**H2-pa** Accelerator V							**H9-ap** [F] 100th Anniversary Ferroelectricity II			**H12-st** Econophysics	**H13-te** Physics Education in Diverse Setting		**H15-op** Optics II				**H19-bp** [F] Dynamics in Cells		**APCTP-KPS-JPS meeting:** Distinguished Lecture

Particle physics · Nuclear physics · Condensed matter physics · Applied physics · Statistical physics · Physics teaching · Plasma physics
Optics and quantum electronics · Atomic & molecular physics · Semiconductor physics · Astrophysics · Biological physics · Special session

Poster Sessions

- Presentation : **Nov. 2, 12:00 ~ Nov. 6, 18:00**
- On-line Discussion(mandatory): **Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50**

P1-pa.1 Particle physics I	**P1-pa.2** Particle physics II	**P1-nu** Nuclear physics	**P1-co.1** Magnetism/ Superconductivity	**P1-co.2** Strongly Correlated/ Dielectrics/ Functional Oxides	**P1-co.3** Nano-Meso/ Surface-Interface	**P1-co.4** Computational Condensed Matter Physics	**P1-co.5** Other condensed materials / Instruments
P1-ap.1 2D materials	**P1-ap.2** Surface / Nano	**P1-ap.3** Magnetism/ Oxide/Energy/ Computational	**P1-ap.4** Organic electronics and photonics	**P1-ap.5** Photonics and quantum information	**P1-st** Statistical Physics	**P1-te** Physics Education	**P1-pl.1** Plasma physics I
P1-pl.2 Plasma physics II	**P1-op** Optics and Quantum Electronics	**P1-at** Atomic, Molecular and Optical Physics	**P1-se.1** Semiconductor growth, transport & optical properties	**P1-se.2** Low dimensional nano-materials	**P1-as** Astrophysics Experiments/ Observations and Theories	**P1-bp** Biological Physics	

Particle physics · Nuclear physics · Condensed matter physics · Applied physics · Statistical physics · Physics teaching · Plasma physics
Optics and quantum electronics · Atomic & molecular physics · Semiconductor physics · Astrophysics · Biological physics · Special session

Program at a glance

Date	Time	Program		Special Sessions & KPS Events
Nov. 4 (Wed)	13:00-14:48	**Session A**	e-Poster Session (Nov. 2 ~ 6)	**NPSM Senior Invited Lecture**
	14:48-15:00	Break		Break
	15:00-16:48	**Session B**		**Heavy Ion Accelerator Complex / Computational Science**
	16:48-17:10	Break		Break
		Tutorial (17:10-18:10)		**General Assembly** (17:10-18:10)
				KPS Fellow Meeting (18:10-18:40)
Nov. 5 (Thu)	09:00-10:48	**Session C**		
	10:48-11:10	Break		
	11:10-12:00	**Plenary**		
	12:00-13:00	Lunch Break		
	13:00-13:50	**e-Poster On-line Discussion I**		
	13:50-14:00	Break		
	14:00-15:48	**Session D**		**Status and future outlook of new accelerator**
	15:48-16:10	Break		
	16:10-17:58	**Session E**		**KPS-KOFWST Young Researcher Awardee's Presentation**
				APCTP Best Science Books of This Year - Authors Lectures (19:00-20:00)
Nov. 6 (Fri)	09:00-10:48	**Session F**		
	10:48-11:10	Break		
	11:10-12:58	**Session G**		
	12:58-14:00	Lunch Break		
	14:00-14:50	**e-Poster On-line Discussion II**		
	14:50-15:00	Break		
	15:00-16:48	**Session H**		**APCTP-KPS-JPS meeting: Distinguished Lectures** (15:00-18:00)

Plenary Lecture

Tutorial sessions

Sessions organized by KPS committees

List of Award Winners' Presentations

A: November 4(Wed) 13:00-14:48

B: November 4(Wed) 15:00-16:48

C: November 5(Thu) 09:00-10:48

D: November 5(Thu) 14:00-15:48

E: November 5(Thu) 16:10-17:58

F: November 6(Fri) 09:00-10:48

G: November 6(Fri) 11:10-12:58

H: November 6(Fri) 15:00-16:48

P1: e-Poster Release - Nov. 2(Mon), 12:00 ~ Nov. 6(Fri), 18:00
*** e-Poster Online Discussion - Nov. 5(Thu.) 13:00-13:50 and Nov. 6(Fri.) 14:00-14:50**

구두발표논문 시간표

Oral session schedule

기조강연 Plenary Lecture

[E] [PL1-or] Plenary Session
2020. 11. 05 Thursday 11:10~11:58
Room: 01
좌장 : **유재준** 서울대학교
Chair : YU Jaejun (Seoul National University)

PL1.01 [11:10 - 11:58]
The Fascinating Quantum World of Atomically Thin Two-dimensional Materials /
LOUIE Steven G.*[1,2] ([1]Physics Department, University of California at Berkeley, [2]Lawrence Berkeley National Lab, U.S.A.)

STEVEN GWON SHENG LOUIE is a computational condensed-matter physicist. He is a professor of physics at the University of California, Berkeley and senior faculty scientist in the Materials Sciences Division at Lawrence Berkeley National Laboratory, where his research focuses on nanoscience. He is honored with numerous awards including 2019 Fellow of Materials Research Society (MRS) and 2018 Kodosky Lecturer at Rensselaer Polytechnic Institute. Professor Louie's research spans a broad spectrum of topics in theoretical condensed matter physics and nanoscience. He is known for his pioneering work on the ab initio GW method, which led to his resolution of the bandgap problem in semiconductors and founding of the field of first-principles study of excited-state properties of materials, and for his seminal work on surfaces and interfaces, nanostructures, and reduced-dimensional systems. He was a founding scientific director of the Molecular Foundry, a DOE national nanoscience center. He is identified by the ISI Web of Science as one of the most highly cited researchers in physics and nanoscience.

Abstract
Many fascinating phenomena in nature owe their emergence from the interactions of large number of particles. In particular, symmetry, interaction and topological effects dominate many of the quantum properties of reduced-dimensional systems. These effects often lead to manifestation of counter-intuitive concepts and phenomena that may not be so prominent or have not been seen in the bulk. In this talk, I present some fascinating quantum phenomena discovered in recent studies of atomically thin one- and two-dimensional materials. A number of interesting and unexpected behaviors have been found - e.g., strongly bound excitons (electron-hole pairs) with unusual energy level structures; tunable magnetism and plasmonic properties; novel topological phases; correlated 3- and 4-particle excitations; etc. - adding to the promise of these materials for exploration of new science and valuable applications.

Tutorial Sessions

[T1-as] Dark energy and accelerating universe

2020. 11. 04 Wednesday 17:10~17:58

Room: 04

좌장 : 이창환 부산대학교 물리학과

Chair : LEE Chang Hwan (Pusan National University)

[SCOPE]

물리학과 우주론의 주요 화두 중 하나인 암흑에너지, 우주 팽창, 허블 상수에 대한 튜토리얼 세션을 갖고자 한다.

T1.01 [17:10 - 17:58]

Dark energy or Dark delusion?: Evidence for a decelerating universe from supernova cosmology / LEE Young-Wook*[1] ([1]Department of Astronomy, Yonsei University)

Supernova (SN) cosmology is based on the assumption that the corrected luminosity of SN Ia would not evolve with redshift. Recently, our age dating of early-type host galaxies (ETGs) from high-quality spectra has shown that this key assumption is most likely in error. It has been argued though that the age-Hubble residual (HR) correlation from ETGs is not confirmed from the age datasets measured from multi-band optical photometry of host galaxies of all morphological types. We find, however, that the statistical analysis involved is affected by "regression dilution bias", severely underestimating both the slope and significance of the age-HR correlation. Remarkably, when we apply regression analysis with a standard posterior sampling method to this dataset comprising a large sample of host galaxies, very significant (4.3 sigma) correlation is obtained between the population age and HR with the slope highly consistent with our previous spectroscopic result from ETGs. We also show that the light curve parameters (x1 & c) of high-redshift SNe are consistent with those of SNe from young progenitors. This confirms that the systematic bias with redshift (luminosity evolution) is inevitable due to an over-correction in standardization. The corresponding luminosity evolution is significant enough to fully explain the observed dimming of SN with redshift without the dark energy. When the luminosity evolution is properly taken into account, SN data now strongly support a decelerating cosmic expansion! Since the SN cosmology has long been considered as the most direct evidence for the accelerating universe, an important avenue of future investigations would be to see how this new result from SNe can be reconciled with other cosmological probes.

[T2-co] Condensed matter physics

2020. 11. 04 Wednesday 17:10~17:58

Room: 05

좌장 : **장영준** 서울시립대학교 물리학과

Chair : CHANG Young Jun (University of Seoul)

[SCOPE]

라만 분광학은 응집물리에서 유용하게 활용되는 분광법으로, 응집물질계에서 저차원 물질들의 물성 연구에 라만 분광법이 널리 활용되면서 더욱 주목받고 있다. 특히 최근에는 저차원 물질들의 격자, 이방성, 전자구조, 스핀정렬 등 다양한 물성 현상과 더불어 응용 소자 분석에 이르기까지 그 연구의 폭이 넓어지고 있다. 본 튜터리얼 강의에서는 라만 분광법의 기본 원리 및 활용법을 소개하고, 연구 현황 및 향후 전망을 논의하고자 한다.

T2.01 [17:10 - 17:58]

Fundamentals of Raman scattering spectroscopy / YOON Seokhyun*1 ([1]Department of Physics, Ewha Womans University)

Raman scattering refers to inelastic scattering of light. In this tutorial, I will briefly introduce basics of Raman scattering spectroscopy that utilizes inelastic scattering phenomena due to inhomogeneity inside materials induced by various elementary excitations. Focus will be given for scattering by phonons among the elementary excitations and brief introduction to applying symmetry selection rules to Raman spectroscopic measurements will also be presented. As applications of Raman scattering spectroscopy, I will present results especially on low dimensional systems such as 1D and 2D materials. Through the examples, I will show that Raman scattering spectroscopy can provide a very useful mean to study basic characteristics such as optical properties and structural properties of various materials systems. In addition, I will introduce methodology that spectroscopically "focusing and controlling" light below the diffraction limit by applying techniques from SERS (surface enhanced Raman scattering).

[T3-ap] First-principles modeling: Bridging fundamentals to edge-cutting technology

2020. 11. 04 Wednesday 17:10~17:58

Room: 09

좌장 : **김용현** 한국과학기술원 나노과학기술대학원

Chair : KIM Yong-Hyun (KAIST)

[SCOPE]

제일원리에 기반한 계산을 통해, 자연계의 가장 복잡하고 난해한 현상을 그대로 모사함과 동시에 이를 기존에 상상치 못한 기술로 연결하는 방법을 강의하고자 한다. 강유전성, 자성, 촉매 등의 분야에서 기존의 공학이 인지못한 새로운 현상이나 소재를 제시할 수 있음을 우리의 다양한 사례를 통해 제시하고 물리 전공 학생들이 쉽게 접근할 수 있는 방법론을 강의한다. 끝으로 제일원리 계산과 "평평한 띠" 이론을 융합하여, 기존의 거대 도메인 없이 유닛셀 원자 자체가 도메인이 되는, 스케일링이 완

전히 극복된 "원자 반도체" 의 발견[1] 을 성공사례의 정점으로 들고자 한다.

T3.01 [17:10 - 17:58]

First-principles modeling : Bridging fundamentals to edge-cutting technology / LEE Jun Hee*1 ([1]School of Energy and Chemical Engineering, UNIST)

When the Physicist R. Feynmann was asked to think of a single sentence that would convey the most important scientific knowledge we possess, he answered "Everything made of atoms". First-principles modeling is one of the most crucial methods to directly deal with arrangement of atoms and their unexpected physical consequences. Combined with our physics knowledge, this method can make great synergy in inventing ground-breaking technology. First, I will teach how to understand the basics principles of first-principles approach based on density-functional theory. Then, I will teach how to apply this method to understand and define the various setbacks to the technological breakthrough and to solve the problems for the renovations in various fields such as semiconductor and energy industry. I will end up with showing our recent successful examples of the real-life fairy tale [1] in densest ferroelectric memories [2], topological superconductor [3], solar cells [4], batteries [5], and hydrogen-catalysts [6].

[1] Noheda et al., Science 369, 1300 (2020)
[2] Lee et al., Science 369, 1343 (2020)
[3] Lee et al., 4, 034202, Phys. Rev. Mater 4, 034202 (2020)
[4] Min et al., Science 366, 749 (2019)
[5] Ryu et al., Nat. Comms. 10, 2351 (2019)
[6] Seo et al., Appl. Catal. B 260, 118186 (2019)

[T4-pl] A moment approach to plasma fluid/kinetic theory

2020. 11. 04 Wednesday 17:10~17:58

Room: 14

좌장 : **나용수** 서울대학교 원자핵공학과

Chair : NA Yong Su (Seoul National University)

[SCOPE]

볼츠만 방정식으로부터 유체방정식을 유도하는데 있어 걸림돌이 되는 closure 문제를 moment approach를 통해 해결하여 플라즈마 현상을 이해하는 유체모델을 수립하는 과정을 다루고 이의 적용에 대해 논의하고자 한다.

T4.01 [17:10 - 17:58]

A moment approach to plasma fluid/kinetic theory / JI Jeong-Young*1 ([1]Department of Physics, Utah State University)

A system of exact fluid equations always involves more unknowns than equations. This is called the closure problem. An important aspect of obtaining quantitative closures is an accurate account of collisional effects. In this talk, I introduce how to convert the kinetic

equation into an equivalent set of moment equations with exact collisional moments. Then I present how to solve the moment equations to obtain (1) fluid closures for collision-dominated plasmas with short mean free paths and (2) parallel closures for magnetized plasmas with arbitrary mean free paths. In particular, I highlight the effect of long mean free path on parallel heat transport.

학회주관세션 Sessions organized by KPS Committees

[A20-or] NPSM Senior Invited Lecture "I was a physicist. From now on…"
2020. 11. 04 Wednesday 13:00~14:48
Room: 20
좌장 : 조성래 울산대학교 물리학과
Chair : CHO Sung Lae (University of Ulsan)

A20.01 [13:05 - 13:45]
Fate of university in the post coronavirus world / 정윤희*1 ([1]POSTECH)

A20.02 [13:45 - 14:25]
물리가 있는 풍경-Gamma ray bursts and gravitational waves / 이현규*1 ([1]한양대)

A20.03 [14:25 - 14:48]
새물리 발전 방향 / 조성래*1 ([1]울산대, 새물리 편집위원장)

[B19-or] Status of Heavy Ion Accelerator Complex, RAON
2020. 11. 04 Wednesday 15:00~16:50
Room: 19
좌장 : 권영관 기초과학연구원 중이온가속기건설구축사업단
Chair : KWON Young-Kwan (IBS)

B19.01 [15:00 - 15:24]
중이온가속기 현황 및 향후 계획 / 권면*1 ([1]기초과학연구원 중이온가속기건설구축사업단)

B19.02 [15:24 - 16:08]
중이온가속기 가속장치 구축현황 / 손영욱*1 ([1]기초과학연구원 중이온가속기건설구축사업단)

B19.03 [16:08 - 16:50]
중이온가속기 실험장치 구축현황 / 신택수*1 ([1]기초과학연구원 중이온가속기건설구축사업단)

[B20-or] How can you introduce computational science to your research?

2020. 11. 04 Wednesday 15:00~16:48

Room: 20

좌장 : 박민규 (주)버추얼랩

Chair : PARK Minkyu (Virtual Lab. Inc.)

B20.01 [15:00 - 15:48]

How can you introduce computational science to your research? / KIM Young-Kwang*1 ([1]Virtual Lab. Inc.)

[D20-or] 출연연특별세션: 신규 방사광가속기 구축 현황 및 미래전망(Status and future outlook of new accelerator)

2020. 11. 05 Thursday 14:00~15:48

Room: 20

좌장 : 임종선 한국화학연구원

Chair : LIM Jong Sun (KRICT)

[14:00 - 14:05]

출연연활설화특별위원회 위원장 인사말 / 이주한 (한국기초과학지원연구원)

D20.01 [14:05 - 14:30]

미래 방사광가속기의 이용 기술과 사이언스 / 김현정*1 ([1]서강대)

D20.02 [14:30 - 14:55]

신규방사광가속기에서의 분광실험 발전 방향 / 고경태*1 ([1]한국기초과학지원연구원)

D20.03 [14:55 - 15:20]

Design of Korean 4GSR and its beam characteristic / 이재유*1 ([1]포항가속기연구소)

D20.04 [15:20 - 15:45]

KAERI의 다목적 방사광가속기 구축 인력 리뷰 / 김유종*1 ([1]한국원자력연구원)

[E20-or] "KPS-KOFST 젊은 연구자상" 후보자 논문 발표 및 선정("KPS-KOFWST Young Researcher Award" – Applicant's presentation and selection)

2020. 11. 04 Wednesday 12:00 – 11. 06 Friday 18:00 (Release on the website)

2020. 10. 21 Wednesday 14:10~16:30 (Presentation)

Room: 20

좌장 : 류미이 강원대학교 물리학과

Chair : RYU Mee-Yi (Kangwon National University)

[14:00 - 14:10]

회장 · 여성위원회 위원장 인사말 / 이범훈(서강대) · 김현정(서강대)

E20.01 [14:10 - 14:30]
Oxygen Vacancy Engineering for Highly Tunable Ferromagnetic Properties: A Case of $SrRuO_3$ Ultrathin Film with a $SrTiO_3$ Capping Layer / 고은교*1 ([1]서울대/IBS)

E20.02 [14:30 - 14:50]
Layering Transition and Novel Topological Defects of Chiral Nematic Liquid Crystals Confined in a Cylinder / 은종희*1 ([1]UNIST)

E20.03 [14:50 - 15:10]
Instability of j=3/2 Bogoliubov Fermi-surfaces / 오한빛*1 ([1]KAIST)

E20.04 [15:10 - 15:30]
Off-diagonal singlet state in the infinite-layer nickelate with Ni^{2+} ion / 진효선*1 ([1]고려대)

E20.03 [15:30 - 15:50]
Identification of Additional Jets in the $t\bar{t}b\bar{b}$ Events by Using Deep Neural Network / 최지은*1 ([1]한양대)

E20.03 [15:50 - 16:10]
Optical absorption and anomalous photoconductivity in Methylammonium lead mixed halide single crystals / 변혜령*1 ([1]서강대)

E20.03 [16:10 - 16:30]
Study of event Jettiness in the H → ZZ* → 4l decay channel / 김미란*1 ([1]성균관대)

[H20-or] [E] [APCTP-KPS-JPS Meeting] Distinguished Lectures
2020. 11. 06 Friday 15:00~18:00
Room: 20
Chair 1: ISHIBASHI Nobuyuki (Tokyo Institute of Technology)
Chair 2: KIM Changyoung (Seoul National University)
Chair 3: SIN Sang-Jin (Hanyang University)
Chair 4: TAJIMA Setsuko (JPS)

[15:00 - 15:15]
Opening Remark / BANG Yunkyu (APCTP), NAGAE Tomofumi (JPS), SUGAWARA Hirotaka (OIST)

H20.01 [15:15 - 15:55]
Chair 1: ISHIBASHI Nobuyuki (Tokyo Institute of Technology)
Quantum chaos and black holes / HASHIMOTO Koji*1 ([1]Osaka Univ.)

H20.02 [15:55 - 16:35]
Chair 2: KIM Changyoung (Seoul National University)
Towards room-temperature T_c in van der Waals layered magnetic semiconductors / LEE Young Hee*1 ([1]Sungkyunkwan Univ., IBS)

H20.03 [16:35~17:15]
Chair 3: SIN Sang-Jin (Hanyang University)
Recent advances with neutrino program in Korea / KIM Yeongduk*1 ([1]IBS)

H20.04 [17:20~17:55]
Chair 4: TAJIMA Setsuko (JPS)
Emergent electromagnetic phenomena from topological magnets / TOKURA Yoshinori*1 ([1]RIKEN, Univ. of Tokyo)

[17:55~18:00]
Closing Remark / LEE Bum-Hoon (KPS)

[W20-or] APCTP 선정 과학도서 저자 강연
(APCTP Best Science Books of This Year – Authors Lectures)
2020. 11. 05 Thursday 19:00~20:00
Room: 20
좌장 : 손승우 한양대학교 응용물리학과
Chair : SON Seung-Woo (Hanyang University)

W20.01 [19:00 - 20:00]
〈호기심의 과학〉 / 유재준*1 ([1]서울대)

[2020 논문상 수상자 발표]

C11.02 (초) 2020.11.05 Thursday 09:24–09:48 Room: 11

Metal halide perovskite LEDs prepared by ultrasonic spray coating process / IM Sang Hyuk*[1] ([1]Department of Chemical and Biological Engineering, Korea University)

[2020 우수여성대학원생상 수상자 발표]

A8.02 2020.11.04 Wednesday 13:12 – 13:24 Room: 02

Proposals to detect Bogoliubov Fermi surfaces / OH Hanbit[1], MOON Eun-Gook*[1] ([1]physics, KAIST)

[2020 신진과학자상 수상자 발표]

C17.03 (초) 2020.11.05 Thursday 09:48 – 10:12 Room: 17

Ultrasensitive Plasmon-free Surface-enhanced Raman Spectroscopy with Femto-molar Detection Limit from 2D van der Waals Heterostructure / PARK HYESUNG*[1] ([1]Department of Materials Science and Engineering, UNIST)

[2020 응집물질물리학 MSM상 수상자 발표]

A8.04 2020.11.04 Wednesday 13:36 – 13:48 Room: 02

Distinct nodal and nematic superconducting phases in the 2D Ising superconductor $NbSe_2$ / CHO Chang-woo*[1,2], LYU Jian[2,3], HAN Tianyi[2,4], NG Cheuk Yin[2], GAO Yuxiang[2], LI Gaomin[3], HUANG Mingyuan[3], WANG Ning[2], SCHMALIAN Joerg[5], LORTZ Rolf[2] ([1]Grenoble High Magnetic Field Laboratory, Centre National de la Recherche Scientifique, CNRS, [2]Department of Physics, The Hong Kong University of Science and Technology, [3]Department of Physics, Southern University of Science and Technology, [4]Department of Physics, Massachusetts Institute of Technology, [5]Institute for Theory of Condensed Matter and Institute for Solid State Physics, Karlsruhe Institute of Technology)

Session A

2020 November 4(Wed) 13:00~14:48

[A1-pa] High Energy Phenomenology

2020. 11. 04 Wednesday 13:00~15:12

Room: 01

좌장 : 김정한 충북대학교

Chair : KIM Jeong Han (Chungbuk National University)

A1.01 [13:00 - 13:12]

Conformal window from conformal expansion / LEE Jong-Wan*1 (1Department of Physics, Pusan National University)

A1.02 [13:12 - 13:24]

Thermal transition of QCD with Nf=2+1 flavors of Wilson quark / KIM Se Yong*1 (1Department of Physics, Sejong University)

A1.03 [13:24 - 13:36]

Reconciling dark cosmology with condensates of gravitational fluctuations / VAN PUTTEN Maurice H*1 ([1]Physics and Astronomy, Sejong University)

A1.04 [13:36 - 13:48]

Phenomenological constraints on the family-dependent extra U(1) gauge bosons / KYAE Bum Seok*1, CHOI Kang Sin[2], SEO Min-Seok[3] ([1]Pusan National University, [2]Scranton College, Ewha Womans University, [3]Dep. of Physics Edu., Korea National University of Education)

A1.05 [13:48 - 14:00]

Unitarity and the dilaton effective theory / KIM Gyurin*1, HONG Deog Ki[1], LEE Yejin[1], PARK Jun Beom[1] ([1]Physics, Pusan National University)

A1.06 [14:00 - 14:12]

Gravitational probes of flavor models with the continuum Clockwork / KANG Yoo-Jin[1], KIM Soonbin[1], LEE Hyun Min*1 ([1]Department of Physics, Chung-Ang University)

A1.07 [14:12 - 14:24]

The effective theory of nuclear scattering for a WIMP of arbitrary spin / SCOPEL Stefano*1, KANG Sunghyun[1], PAOLO Gondolo[2], TOMAR Gaurav[3] ([1]Physics, Sogang University, [2]Physics, University of Utah, [3]Physics, Munich Tech. University)

A1.08 [14:24 - 14:36]

Self-interacting dark matter via massive spin-2 mediator / LEE Hyun Min*[1], KANG Yoojin[1] ([1]Department of Physics, Chung-Ang University)

A1.09 [14:36 - 14:48]

Searching for Boosted Dark Matter mediated by a new Gauge Boson / CHO Won-sub*[1], CHOI Ki-young[1], YOO Seong Moon1 ([1]Department of Physics, Sungkyunkwan University)

A1.10 [14:48 - 15:00]

Boosted Dark Matter at Dark Matter Direct Detection Experiments / GIUDICE Gian F.[1], KIM Doojin[2], PARK Jong-Chul*[3], SHIN Seodong[4] ([1]Theoretical Physics Department, CERN, [2]Department of Physics and Astronomy, Texas A&M University, [3]Department of Physics, Chungnam National University, [4]Department of Physics, Jeonbuk National University)

A1.11 [15:00 - 15:12]

Implications of the XENON1T Excess on the (energetic) Dark Matter Interpretation / SHIN Seodong*[1], PARK Jong-Chul*[2], KIM Doojin[5], KONG Kyoungchul[3], MOHLABENG Gopolang[4], ALHAZMI Haider[3] ([1]Physics, Jeonbuk National University, [2]Physics, Chungnam National University, [3]Physics and Astronomy, University of Kansas, [4]Physics, Brookhaven National Laboratory, [5]Physics and Astronomy, TAMU)

[A2-pa] Accelerator I

2020. 11. 04 Wednesday 13:00~14:48

Room: 02

좌장 : 고정환 경희대학교

Chair : GHO Junghwan (Kyung Hee University)

A2.01 [13:00 - 13:12]

Differential cross section measurement of $t\bar{t}b\bar{b}$ in lepton+jets channel with the full Run 2 dataset using deep learning / CHOI Jieun*[1], KIM Taejeong[1], AN Seohyeon[1] ([1]Department of Physics, Hanyang University)

A2.02 [13:12 - 13:24]

Search for chromoelectric dipole moment of top quark in pp collisions at $\sqrt{s}$ = 13 TeV using 2016 data / HA Seung kyu*[1], CHOI Suyong[2], LEE Sehwook[3], LIM Jaehoon[2], YOO Hwidong[1] ([1]Yonsei University, [2]Department of Physics, Korea University, [3]Department of Physics , Kyungpook National University)

A2.03 [13:24 - 13:36]

Measurement of CP violation by using an angular distribution in single top t-channel @ 13 TeV / PARK Inkyu*[1], KO Byeonghak[1], LEE Jason Sang Hun[1], KIM Hyunsoo[2] ([1]Uni-

versity of Seoul, [2]Department of Physics, Sejong University)

A2.04 [13:36 - 13:48]
Study of event Jettiness in the Higgs to 4 lepton decay / KIM Mi Ran[*1], ORTONA Giacomo[2] ([1]Department of Physics, Sungkyunkwan University, [2]Particle physics, National Institute for Nuclear Physics (INFN))

A2.05 [13:48 - 14:00]
Study for a direct Vts measurement in top pair production at LHC 13 TeV / WATSON Ian James[*1], JANG Woojin[1], LEE Jason[*1], PARK Inkyu[*1] ([1]Department of Physics, University of Seoul)

A2.06 [14:00 - 14:12]
Search for LFV in top quark sector with charm, muon, and tau final states / CHOI JIEUN[1], CHOI SU YONG[2], KIM TAE JEONG[1], LIM JONGWON[*1], SONG JUHEE[1], RYOU YEONSU[1], YUN SOOHYUN[1] ([1]Department of Physics, Hanyang University, [2]Department of Physics, Korea University)

A2.07 [14:12 - 14:24]
Search for Supersymmetry with Compressed Mass Spectrum in the Vector Boson Fusion Topology with 0-lepton Final State at 13 TeV / LEE Jason Sang Hun[*1], PARK Kyungmin[1], PARK Inkyu[1] ([1]Department of Physics, University of Seoul)

A2.08 [14:24 - 14:36]
The measurement of forward-backward asymmetry in Drell-Yan with single b-jet events at LHC / YANG Un-ki[*1], JUN Won[1], SEO HyonSan[1] ([1]Department of physics and astronomy, Seoul National University)

A2.09 [14:36 - 14:48]
Hadronic showers in Fast Simulation / PAK Sang Il[*1], BEIN Samuel Luis[2], SEKMEN Sezen[1], GOLDOUZIAN Reza[3], LEE Sehwook[1] ([1]Physics, Kyungpook National University, [2]Physics, Hamburg University, [3]Physics, University of Notre Dame)

[A3-nu] Nuclear Experiment
2020. 11. 04 Wednesday 13:00~14:24
Room: 03
좌장 : 홍승우 성균관대학교
Chair : HONG Seung Woo (Sungkyunkwan University)

A3.01 [13:00 - 13:12]
Overview of Nuclear Data Production System at RAON / LEE Sangjin[1], HAM Cheolmin[*1], GIL Choong-Sup[2], MOON Dalho[3], KIM Do Heon[2], KWAK Donghyun[4], JEONG

Junyeong[4], TSHOO Kyungho[1], CHUNG Moses[4], MOON Seok Ho[4], HONG Seung-Woo[3], YANG Sung-Chul[2], SONG Tae-Yung[2], CHEON Yoo-Lim[4], LEE Young-Ouk[2] ([1]Rare Isotope Science Project, Institute for Basic Science, [2]Nuclear physics application research division, Korea Atomic Energy Research Institute, [3]Department of Physics, Sungkyunkwan University, [4]Department of Physics, UNIST)

A3.02 [13:12 - 13:24]
RAON/NDPS의 세부장치 설계 / YANG Sung-Chul *1, 송태영[1], 이영욱[1], 길충섭[1], 김도헌[1] ([1]Nuclear Data Center, KAERI)

A3.03 [13:24 - 13:36]
RAON/NDPS 빔광학 설계 / LEE Young-Ouk *1, YANG Sung-Chul[1], SONG Tae-young[1], GIL Choong-SUp[1], KIM Do-Heon[1], CHAE Kil-Byoung[1] (1Nuclear Data Center, KAERI)

A3.04 [13:36 - 13:48]
고해상도 TOF (Time of Flight) 중성자 실험을 위한 단일 번치 빔 생성 방법 연구 / MOON SeokHo[1], KWAK Donghyun[1], JEONG Junyeong[1], CHUNG Moses*1, CHAE GilByung[2] ([1]Department of Physics, UNIST, [2]Department of Nuclear Physics Application Research, KAERI)

A3.05 [13:48 - 14:00]
The detection system of Nuclear Data Production System / MOON Dalho[1], HAM Cheolmin[2], HONG Seung Woo*1 ([1]Sungkyunkwan University, [2]Rare Isotope Science Project, Institute for Basic Science)

A3.06 [14:00 - 14:12]
High Statistics Measurements of 12C(K^-,p) Reaction at J-PARC / CHOI Sung Wook[1], AHN Jung Keun*1, For the J-PARC E42 Collaboration ([1]Department of Physics, Korea University)

A3.07 [14:12 - 14:24]
A three-dimensional electromagnetic sampling calorimeter for the future $K_L^0 \rightarrow \pi^0 \nu\bar{\nu}$ experiment / KIM Young Jun[1], KIM Jun Lee[2], LIM Gei Youb[3], KIM Eun-Joo[2], AHN Jung Keun*1 ([1]Department of Physics, Korea University, [2]Division of Science Education, Jeonbuk National University, [3]High Energy Accelerator Research Organization, KEK, IPNS)

[A4] No session

[A5-co] [F] Emergent quantum phenomena in symmetry-manipulated oxides I

2020. 11. 04 Wednesday 13:00~14:36

Room: 05

좌장 : **박성균** 부산대학교

Chair : PARK Sungkyun (Pusan National University)

A5.01 [13:00 - 13:24]

Electrinc structure studies of $SrRuO_3$ films in the ultrathin limit – spin structures and topological features / KIM Changyoung*1 ([1]Department of Physics and Astronomy, Seoul National University)

A5.02 [13:24 - 13:48]

Mimicking superconductivity of Sr_2RuO_4 using $SrRuO_3$–$SrTiO_3$ superlattice / KIM Bongjae*1 ([1]Department of Physics, Kunsan National University)

A5.03 [13:48 - 14:12]

Phase Instability amid Dimensional Crossover in Artificial Oxide Crystal / CHOI Woo Seok*1 ([1]Physics, Sungkyunkwan University)

A5.04 [14:12 - 14:36]

Oxygen-vacancy-endurable conductors with enhanced transparency using correlated 4d^2 $SrMoO_3$ thin films / HA Youngkyoung[1], LEE Shinbuhm*1 ([1]Emerging Materials Science, DGIST)

[A6-co] [E] [F] Berry curvature, Topology, and Spin transport I

2020. 11. 04 Wednesday 13:00~15:00

Room: 06

좌장 : **전상준** 중앙대학교

Chair : JEON Sangjun (Chung-ang University)

A6.01 [13:00 - 13:24]

Topological physics in the 2D kagome network / COMIN Riccardo*1 ([1]MIT)

A6.02 [13:24 - 13:48]

Generation and control of Berry curvature dipole in 2D honeycomb lattices / LEE Jieun*1 ([1]Department of physics and astronomy, Seoul National University)

A6.03 [13:48 - 14:12]

Geometrical photon drag shift current in centrosymmetric crystals / SONG Justin*1 ([1]NTU, Nanyang Technological University)

A6.04 [14:12 - 14:36]
Anomalous thermal transport in magnetic insulators / YANG Bohm Jung*1, PARK Sung-joon1 (1Department of Physics and Astronomy, Seoul National University)

A6.05 [14:36 - 15:00]
Longitudinal Spin Seebeck effect in Pt/YIG structure with monolayer WSe_2 inter-layer / LEE Sang-Kwon*1, LEE Won-Yong1, KIM Yong Soo2, SAITOH Eiji3 (1Physics, Chung-ang University, 2Physics, University of Ulsan, 3Applied Physics, The University of Tokyo)

[A7-co] [F] Ultimate X-ray Science
2020. 11. 04 Wednesday 13:00~15:00
Room: 07
좌장 : 문봉진 광주과학기술원
Chair : MUN Bongjin Simon (GIST)

A7.01 [13:00 - 13:24]
Current Status of European XFEL Facility and Future Perspectives / KIM Chan*1 (1European XFEL)

A7.02 [13:24 - 13:48]
Pulsed laser-induced dewetting of Co/Sapphire(0001) thin films / KANG Hyon Chol*1 (1Department of Materials Science and Engineering, Chosun University)

A7.03 [13:48 - 14:12]
Graphene in organic-inorganic hybrid PVs: synchrotron x-ray studies / KIM Hyo Jung*1 (1Organic Material Science and Engineering, Pusan National University)

A7.04 [14:12 - 14:36]
Structural phase control and thermochromic modulation of VO_2 thin films by post thermal annealing / KUMAR Manish1, RANI Sunita1, SINGH Jitendra Pal1, CHAE Keun Hwa2, KIM Younghak1, PARK Jaehun1, LEE Hyun Hwi*1 (1Beamline Research Division, Pohang Accelerator Laboratory, 2Advanced Analysis Center, KIST)

A7.05 [14:36 - 15:00]
Femtosecond Dynamics of Strongly Photoexcited Electrons in Noble Metals / CHO Byoung Ick*1 (1GIST)

[A8-co] Superconductivity

2020. 11. 04 Wednesday 13:00~14:36

Room: 08

좌장 : 조연정 경북대학교

Chair : JO Youn Jung (Kyungpook National University)

A8.01 [13:00 - 13:12]

Topological Jeff=2 Cooper Pairs in the Spin-Orbit Mott Insulator $GaTa_4Se_8$ / PARK Moon Jip[1], SIM GiBaik[1], JEONG Min Yong[1], MISHRA Archana[1], HAN Myung Joon*[1], LEE SungBin[1] ([1]Department of Physics, KAIST)

A8.02 [13:12 - 13:24]

Proposals to detect Bogoliubov Fermi surfaces / OH Hanbit[1], MOON Eun-Gook*[1] ([1]physics, KAIST)

A8.03 [13:24 - 13:36]

Off-diagonal singlet state in the infinite-layer nickelate with Ni^{2+} ion / JIN Hyo-Sun[1], LEE Kwan-Woo*[1] ([1]Division of Display and Semiconductor Physics, Korea University)

A8.04 [13:36 - 13:48]

Distinct nodal and nematic superconducting phases in the 2D Ising superconductor $NbSe_2$ / CHO Chang-woo*[1,2], LYU Jian[2,3], HAN Tianyi[2,4], NG Cheuk Yin[2], GAO Yuxiang[2], LI Gaomin[3], HUANG Mingyuan[3], WANG Ning[2], SCHMALIAN Joerg[5], LORTZ Rolf[2] ([1]Grenoble High Magnetic Field Laboratory, Centre National de la Recherche Scientifique, CNRS, [2]Department of Physics, The Hong Kong University of Science and Technology, [3]Department of Physics, Southern University of Science and Technology, [4]Department of Physics, Massachusetts Institute of Technology, [5]Institute for Theory of Condensed Matter and Institute for Solid State Physics, Karlsruhe Institute of Technology)

A8.05 [13:48 - 14:00]

Coherent photogalvanic effect in fluctuating superconductors / KOVALEV Vadim[2,3], SONOWAL Kabyashree*[1,4], SAVENKO Ivan[1,4] ([1]Theoretical physics of complex systems, IBS, [2]Physics, Rzhanov Institute of Semiconductor Physics, [3]Physics, Novosibirsk State Technical University, 4Basic Science, UST)

A8.06 [14:00 - 14:12]

Electron-spin correlation in the electron-doped cuprate high temperature superconductor / KIM Changyoung*[1,2], SONG Dongjoon[1,2] ([1]Department of Physics and Astronomy, Seoul National University, [2]CCES, IBS)

A8.07 [14:12 - 14:24]

Optical properties of electron doped cuprate $Pr_{0.85}LaCe_{0.15}CuO_{4-\delta}$: unusually low charge carrier density / LEE Myounghoon[1], SONG Dongjoon[2,3], SEO Yu-Seong[1], ROH

Seulki[1], LEE Seokbae[1], EISAKI Hiroshi[3], HWANG Jungseek[*1] ([1]Department of Physics, Sungkyunkwan University, [2]Department of Physics and Astronomy, Seoul National University, [3]Department of Physics, [3]National Institute of Advanced Industrial Science and Technology)

A8.08 [14:24 - 14:36]

B1g phonon anomaly in pseudogap phase of $YBa_2Cu_3O_{7-\delta}$ revealed by Raman spectroscopy / OH Dongjin[1,2], SONG Dongjoon[1,2], WULFERDING Dirk[1,2], TAJIMA Setsuko[4], PARK Seung Ryong[3], KIM Changyoung[*1,2] ([1]Department of Physics and Astronomy, Seoul National University, [2]Center for Correlated Electron Systems, Institute for Basic Science, [3]Department of Physics, Incheon National University, [4]Department of Physics, Osaka University)

[A9-ap] [F] Boron Nitrided based nanomaterials I

2020. 11. 04 Wednesday 13:00~14:48

Room: 09

좌장 : 권영균 경희대학교

Chair : KWON Young-Kyun (Kyung Hee University)

A9.01 [13:00 - 13:36]

Synthesis of wafer-scale hexagonal boron nitride films via chemical vapor deposition / KIM Soo Min[*1], KIM Ki Kang[*2,3] ([1]Department of Chemistry, Sookmyung Women's University, [2]Department of Energy Science, Sungkyunkwan University, [3]Center for Integrated Nanostructure Physics (CINAP), Institute for Basic Science (IBS))

A9.02 [13:36 - 14:12]

Photolithography-like direct pattern growth technique for two-dimensional materials in layered structures - Focus on hexagonal boron nitride / PARK Jaehyun[*1], LEE Dongjun[1] ([1]Center for Opto-Electronic Materials and Devices, KIST)

A9.03 [14:12 - 14:48]

Amorphous Boron Nitride / SHIN Hyeon Suk[*1] ([1]Department of Chemistry and Low-Dimensional Carbon Materials Center, Ulsan National Institute of Science and Technology)

[A10-ap] Oxide and energy materials

2020. 11. 04 Wednesday 13:00~14:48

Room: 10

좌장 : 김태헌 울산대학교

Chair : KIM Tae Heon (University of Ulsan)

A10.01 [13:00 - 13:12]

Surface Treatment and Passivation of Resistively Switchable SnO_2 Thin Films under

Different Ambient Conditions / KIM Jihyun[1], KIM Yeon Soo[1], JUNG Hye Ri[1], JO William*[1] ([1]Department of Physics, Ewha Womans University)

A10.02 [13:12 - 13:24]
Highly reliable titanium oxide memristor array device for neuromorphic computing system / JANG Jingon[1], CHOI Sanghyeon[1], WANG Gunuk*[1] ([1]KU-KIST Graduate School of Converging Science and Technology, Korea University)

A10.03 [13:24 - 13:36]
Titanium oxide thin films for heat mirror applications / SEO Hye-Won*[1], JANG Ji-Won[1] ([1]Dept of Physics, Jeju National University)

A10.04 [13:36 - 13:48]
Fabrication of tunnel selectors using selective filament formation for high-density memristors / JO William*[1,2], KIM Yeon Soo[2], CHUNG Harry[2] ([1]Department of Physics, Ewha Womans University, [2]New and Renewable Energy Research Center, Ewha Womans University)

A10.05 [13:48 - 14:00]
Nanorod-shaped SiOx Memristor for Stochastic Artificial Neuron and Computing Application / CHOI Sanghyeon[1], KIM Gwang Su[1,2], CHO Haein[1], YANG Jehyeon[1], KANG Chong-Yun[1,2], WANG Gunuk*[1] ([1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Center for Electronic Materials, KIST)

A10.06 [14:00 - 14:12]
Reduced extrinsic recombination process in anatase and rutile TiO_2 epitaxial thin films for efficient electron transport layers / KIM Yeon Soo[1], JIN Hye-Jin[1], JUNG Hye Ri[1], KIM Jihyun[1], NGUYEN Bich Phuong[1], KIM Juran[1], JO William*[1] ([1]Department of Physics, Ewha Womans University)

A10.07 [14:12 - 14:24]
Development of unstable front of ionic flow with power-law in crystalline solids / YANG Chan-Ho*[1,2,3], PARK Heung-Sik[1,2], LIM Ji Soo[1,2], SUH Jeonghun[1,2] ([1]Physics, KAIST, [2]Center for Lattice Defectronics, KAIST, [3]KAIST Institute for the NanoCentury, KAIST)

A10.08 [14:24 - 14:36]
Polarization-controlled PVDF-based hybrid nanogenerator for an effective vibrational energy harvesting from human foot / LEE Dong Woo[1], JEONG Dong Geun[1], KIM Jong Hun[2,3], KIM Hyun Soo[1,6], MURILLO Gonzalo[7], LEE Gwan-Hyoung[2,3,4,5], SONG Hyun-Cheol[6], JUNG Jong Hoon*[1] ([1]Inha University, [2]Department of Materials Science and Engineering, Seoul National University, [3]Research Institute of Advanced Materials (RIAM), Seoul National University, [4]Institute of Engineering Research, Seoul National University, [5]Institute of Applied Physics, Seoul National University, [6]Center for Electronic Materials, KIST, [7]Department of Nano and Microsystems, Instituto de Microelectronica de Barcelona)

A10.09 [14:36 - 14:48]
Interface Band Offset and Band Alignment in Ga-graded Cu(In,Ga)Se_2 Thin Film Solar Cells / PARK Ha Kyung[1], CHO Yunae[1], KIM Kihwan[2], JEONG Inyoung[2], YUN Jae Ho[2], GWAK Jihye[2], JO William*[1] ([1]Department of Physics, Ewha Womans University, [2]Photovoltaic Laboratory, Korea Institute of Energy Research (KIER))

[A11] No session

[A12-st] [F] Understanding of Covid-19 outbreak I
2020. 11. 04 Wednesday 13:00~14:48
Room: 12
좌장 : 강병남 서울대학교
Chair : KAHNG Byungnam (Seoul National University)

A12.01 [13:00 - 13:36]
COVID-19 Genomic Surveillance / LEE Ha Youn*[1] ([1]Department of Molecular Microbiology and Immunology, Keck School of Medicine, University of Southern California)

A12.02 [13:36 - 14:12]
COVID-19 related epidemic patterns and scaling behaviors based on minimal model studies / HA Meesoon*[1] ([1]Department of Physics Education, Chosun University)

A12.03 [14:12 - 14:36]
Epidemics spreading with time-varying transmission rates: case of Covid19 / MIN Byungjoon*[1] ([1]Department of Physics, Chungbuk National University)

A12.04 [14:36 - 14:48]
Relationship between transmission of Malaria and Climate change in Africa / LEE Jae Woo*[1], MAFWELE Biseko Juma[1] ([1]Inha University)

[A13-A14] No session

[A15-op] [F] Colloidal Plasmonics & Metamaterials I
2020. 11. 04 Wednesday 13:00~14:36
Room: 15
좌장 : 김명기 고려대학교
Chair : KIM Myung-Ki (Korea University)

A15.01 [13:00 - 13:24]
Non-Thermal Molecular Vibrational Excitation Induced by Plasmonic Hot Carriers

/ SHIN Hyun-Hang[1], NAM Yeonsig[2], LEE Kang Sup[1], YEON Gyu Jin[1], LEE Seung Yeon[1], PARK Sangwon[1], LEE Jin Yong[2], KIM Zee Hwan*[1] ([1]Department of Chemistry, Seoul National University, [2]Department of Chemistry, Sungkyunkwan University)

A15.02 [13:24 - 13:48]
Fluidic metamolecules: from synthetic approach to dynamic self-assembly / PARK Sojung*[1], LEE Sunghee[1], WOODS Connor[2], IBRAHIM Omar[2], CHO Eun Chul[3], FAKHRAAI Zahra[2] ([1]Department of Chemistry and Nanoscience, Ewha Womans University, [2]Department of Chemistry, University of Pennsylvania, [3]Department of Chemical Engineering, Hanyang University)

A15.03 [13:48 - 14:12]
Plasmonic Nanoparticle Superlattice for Unnaturally High Optical Refraction / LEE Seungwoo*[1] ([1]Graduate School of Converging Sci & Tech & Dept. of Integrative Energy Engineering, Korea University)

A15.04 [14:12 - 14:36]
Peptide Induced Chirality in Single Gold Nanoparticle / NAM Ki Tae*[1] ([1]Seoul National University)

[A16-A19] No session

[A20-or] NPSM Senior Invited Lecture "I was a physicist. From now on…"
2020. 11. 04 Wednesday 13:00~14:48
Room: 20
좌장 : 조성래 울산대학교
Chair : CHO Sung Lae (University of Ulsan)

[13:00 - 13:05]
새물리 편집위원회 위원장 인사말 / 조성래(울산대)

A20.01 [13:05 - 13:45]
Fate of university in the post coronavirus world / 정윤희*[1] ([1]POSTECH)

A20.02 [13:45 - 14:25]
물리가 있는 풍경-Gamma ray bursts and gravitational waves / 이현규*[1] ([1]한양대)

A20.03 [14:25 - 14:48]
새물리 발전 방향 / 조성래*[1] ([1]울산대, 새물리 편집위원장)

2020 November 4(Wed) 15:00~16:48

[B1] No session

[B2-pa] Accelerator II

2020. 11. 04 Wednesday 15:00~16:48

Room: 02

좌장 : 유재혁 고려대학교

Chair : YOO Jae Hyeok (Korea University)

B2.01 [15:00 - 15:12]

Search for resonant new phenomena in high-mass dilepton final states at $\sqrt{s}$ = 13TeV with CMS / OH Minseok*1, YOO Hwidong*2 ([1]Department of Physics, Seoul National University, [2]Department of Physics, Yonsei University)

B2.02 [15:12 - 15:24]

Search for Z' bosons decaying into tau pairs in bottom fermion fusion process / LEE Jason Sang Hun*1, PARK Inkyu*1, ROH Youn Jung[1], WATSON Ian James[1], KANG Dayoung[1] ([1]Department of Physics, University of Seoul)

B2.04 [15:24 - 15:36]

Search for Charged Higgs Boson decaying to c $b\bar{b}$ in ttbar lepton+jets channel with CMS Run2 Data / YANG Un-ki*1, OH Byunghun[1], YOON Inseok[1], LEE Sangeun[1], YU Geumbong[2] ([1]Department of physics and astronomy, Seoul National University, [2]Department of physics, CEA Paris-Saclay/IRFU)

B2.06 [15:36 - 15:48]

Search for a heavy neutrino in top quark decays using CMS detector / BHYUN Ji Hwan[1], JEON Si Hyun[1], YANG Un-ki*1 ([1]Department of physics and astronomy, Seoul National University)

B2.07 [15:48 - 16:00]

Search for long-lived particles using HCAL timing at CMS / YOO Jae Hyeok*1, PADMANABA Jayashri[1] ([1]Physics, Korea University)

B2.08 [16:00 - 16:12]

Studies of efficiencies and scale factors in monophoton final state for dark matter

search at CMS / MOON Chang-Seong*[1], LEE Hakseong[1], DOGRAM Sunil Manohar[1] ([1]Department of Physics, Kyungpook National University)

B2.09 [16:12 - 16:24]
Search for Long-lived Particle Using Delayed Photons with CMS / MOON Chang-Seong*[1], SEO YeongDeok[1], PENA Cristian[3], NGUYEN Thong[2], XIE Si[2] ([1]Department of Physics, Kyungpook National University, [2]Department of Physics, California Institute of Technology, [3]Particle Physics Division, Fermi National Accelerator Laboratory)

[B3-nu] Nuclear Experiment & Heavy-ion Collision
2020. 11. 04 Wednesday 15:00~16:24
Room: 03
좌장 : 유인권 부산대학교
Chair : YOO In-Kwon (Pusan National University)

B3.01 [15:00 - 15:12]
The development of LAMPS starting counter / KWEON Min Jung*[1], DO Jaehyeon[1], LEE Hyungjun[1] ([1]Inha University)

B3.02 [15:12 - 15:24]
Development of a Barrel ToF Counter for LAMPS at RAON / AHN Jung Keun*[1], KANG Byungmin[1] ([1]Department of Physics, Korea University)

B3.03 [15:24 - 15:36]
Development of an active-target TPC demonstrator for the study of $^{12}C(\alpha, \gamma)^{16}O$ reaction in stellar nucleosynthesis / KIM Shin Hyung[1], AHN Jung Keun*[1] ([1]Korea University)

B3.04 [15:36 - 15:48]
Single-photoelectron response of MCP-PMT and MPPC for the LEPS2 aerogel Cherenkov detector / YANG Hyunmin[1], AHN J. K.*[1], TOKIYASU A.[2], YOSOI M.[2], For the LEPS2 Collaboration ([1]Korea University, [2]LEPS2)

B3.05 [15:48 - 16:00]
Ξ_c^0 production in p+Pb collisions at $\sqrt{s}$NN = 5.02 TeV / BOK Jeongsu*[1] ([1]Inha University)

B3.06 [16:00 - 16:12]
Ξ_c^0 and Ξ_c^+ production in pp collisions at 13 TeV / SEO Jinjoo*[1] ([1]Dept. of Physics, Inha University)

B3.07 [16:12 - 16:24]
J/ψ near T_c / LEE Su Houng*[1], HONG Juhee[1], SONG Taesoo[2], GUBLER Philipp[3], KENJI

Morita[4] ([1]Yonsei University, [2]Theory group, GSI Helmholtzzentrum, [3]Advanced Science Research Center, Japan Atomic Energy Agency, [4]Nishina Center, RIKEN)

[B4-as] [F] Korean Neutrino Observatory as an Astrophysical Neutrino Telescope

2020. 11. 04 Wednesday 15:00~16:36

Room: 04

좌장 : **곽규진** 울산과학기술원

Chair : KWAK Kyujin (UNIST)

B4.01 [15:00 - 15:24]

KNO Overview / YU Intae*[1] ([1]Department of Physics, Sungkyunkwan University)

B4.02 [15:24 - 15:48]

Neutrino Observatories around the World / ROTT Carsten*[1] ([1]Department of Physics, Sungkyunkwan University)

B4.03 [15:48 - 16:12]

Studies of High-Energy Astrophysical Neutrinos with KN / RYU Dongsu*[1] ([1]Department of Physics, UNIST)

B4.04 [16:12 - 16:36]

Neutrinos from supernovae and compact objects / PARK Myeong-Gu*[1] ([1]Department of Astronomy and Atmospheric Sciences, Kyungpook National University)

[B5-co] [F] Emergent quantum phenomena in symmetry-manipulated oxides II

2020. 11. 04 Wednesday 15:00~16:36

Room: 05

좌장 : **최우석** 성균관대학교

Chair : CHOI Woo Seok (Sungkyunkwan University)

B5.01 [15:00 - 15:24]

Correlation between symmetry and phase transition temperature of VO_2 / PARK Sungkyun*[1], CHOI Yesul[1], LEE Dooyong[1], KIM Jiwoong[1], SONG Sehwan[1], JU Taesung[1], KIM Hyegyeong[1], KIM Jayeong[2], YOON Seokhyun[2], KIM Yunseok[3], PHAN Thang Bach[4], BAE Jong-Seong[5] ([1]Pusan National University, [2]Department of Physics, Ewha Womans University, [3]School of Advanced Materials and Engineering, Sungkyunkwan University, [4]Center for Innovative Materials and Architectures, Vietnam National University, [5]Busan Center, Korea Basic Science Institute)

B5.02 [15:24 - 15:48]
First-principles investigation of strain and oxygen vacancy formation in titanates / KIM Inseo[1], LEE Hyungwoo[1], CHOI Minseok*[1] ([1]Department of Physics, Inha University)

B5.03 [15:48 - 16:12]
Enhanced Hund's metallicity by van Hove singularity in three-band systems / GO Ara*[1] ([1]Department of Physics, Chonnam National University)

B5.04 [16:12 - 16:36]
Understanding the superconductivity in infinite-layer nickelate: 2B(band) or not 2B(band)? / HAN Myung Joon*[1] ([1]Department of Physics, KAIST)

[B6-co] [E] [F] Berry curvature, Topology, and Spin transport II
2020. 11. 04 Wednesday 15:00~16:36
Room: 06
좌장 : 최광용 중앙대학교
Chair : CHOI Kwang-Yong (Chung-ang University)

B6.01 [15:00 - 15:24]
Topological magnons and magnon-polarons in 2D magnets / KIM Se Kwon*[1] ([1]Physics, KAIST)

B6.02 [15:24 - 15:48]
Majorana-mediated spin transport without spin polarization in quantum spin liquids / NASU Joji*[1] ([1]Yokohama National University)

B6.03 [15:48 - 16:12]
Majorana bound states vs. spin waves in Kitaev candidate materials / WULFERDING Dirk*[1,2], CHOI Youngsu[3], LEE Seungyeol[3], GALLAIS Yann[4], FAUGERAS Clément[5], CHOI Kwang-Yong[3] ([1]IBS-CCES, [2]Seoul Natl. Univ., [3]Chung-Ang Univ., [4]Univ. de Paris, France, [5]LNCMI Grenoble, France)

B6.04 [16:12 - 16:36]
Theory of Two-Dimensional Nonlinear Spectroscopy for the Kitaev Spin Liquid / LEE Ki Hoon*[1] ([1]Department of Physics, Incheon National University)

[B7-co] [F] Van der Waals type superconductors

2020. 11. 04 Wednesday 15:00~17:00

Room: 07

좌장 : 조연정 경북대학교

Chair : JO Youn Jung (Kyungpook National University)

B

B7.01 [15:00 - 15:24]

Electron-phonon coupling and its role for superconductivity in twisted graphene layers / CHOI Young Woo[1], CHOI Hyoung Joon[*1] ([1]Department of Physics, Yonsei University)

B7.02 [15:24 - 15:48]

Enhanced superconductivity in the vicinity of CDW quantum critical points in chalcogenide superconductors Pd-intercalated $TaSe_2$ / KIM Kee Hoon [*1,2] ([1]Center for Novel States of Complex Materials and Research, Department of physics and astronomy, Seoul National University, [2]Institute of Applied Physics, Department of physics and astronomy, Seoul National University)

B7.03 [15:48 - 16:12]

On the origin of charge density waves and superconductivity in Pd-intercalated 2H-$TaSe_2$ / BAEK Seung-Ho[*1] ([1]Physics, Changwon National University)

B7.04 [16:12 - 16:36]

Superconductivity emerging from a stripe charge order in $IrTe_2$ nanoflakes / KIM Jun Sung[*1] ([1]Department of Physics, POSTECH)

B7.05 [16:36 - 17:00]

Yu-Shiba-Rusinov states in the unconventional superconductor $FeTe_{0.55}Se_{0.45}$ / CHO Doohee[*1], CHATZOPOULOS Damianos[2], BASTIAANS Koen M.[2], STEFFENSEN Gorm O.[3], BOUWMEESTER Damian[4], AKBARI Alireza[5], GU Genda[6], PAASKE Jens[3], ANDERSEN Brian M.[3], ALLAN Milan P.[2] ([1]Department of Physics, Yonsei University, [2]Leiden Institute of Physics, Leiden University, [3]Center for Quantum Devices, Niels Bohr Institute, University of Copenhagen, [4]Kavli Institute of Nanoscience, Delft University of Technology, [5]Max Planck POSTECH Center for Complex Phase Materials and Department of Physics, POSTECH, [6]Condensed Matter Physics and Materials Science Department, Brookhaven National Laboratory)

[B8-co] Magnetism/Superconductivity

2020. 11. 04 Wednesday 15:00~16:36

Room: 08

좌장 : 김수란 경북대학교

Chair : KIM Sooran (Kyungpook National University)

B8.01 [15:00 - 15:12]

Berezinskii-Kosterlitz-Thouless transitions in easy-plane spin-triplet superconductor / KIM Se Kwon[1], CHUNG Suk Bum*[2] ([1]Department of Physics, KAIST, [2]Department of Physics, University of Seoul)

B8.02 [15:12 - 15:24]

Exact three-colored quantum scars from geometric frustration / LEE Kyungmin[1], MELENDREZ Ronald[1], PAL Arijeet[2], CHANGLANI Hitesh J.*[1] ([1]National High Magnetic Field Laboratory, [2]University College London)

B8.03 [15:24 - 15:36]

Hidden phases born of a quantum spin liquid: Application to pyrochlore spin ice / LEE SungBin*[1], YANG HyeokJun[1] ([1]physics, KAIST)

B8.04 [15:36 - 15:48]

Quantum geometric characterization of anomalous Landau levels of isolated flat bands / HWANG Yoonseok[1,2,3], RHIM Jun-Won[1,2], YANG Bohm Jung*[1,2,3] ([1]Center for Correlated Electron Systems (CCES), Institute for Basis Science (IBS), [2]Department of Physics and Astronomy, Seoul National University, [3]Center for Theoretical Physics (CTP), Seoul National University)

B8.05 [15:48 - 16:00]

Observation of topological surface states in antiferromagnetic Sm-doped Bi_2Te_3 / JUNG Myung Hwa*[1], JUN Jin-Hyeon[1], KIM Jinsu[1], KIM Soo-Whan[1] ([1]Sogang University)

B8.06 [16:00 - 16:12]

The Orbit topology of Dirac semimetal determined from Magnetic Quantum Oscillation / JUNG Myung Hwa*[1], LEE Sang-Eon[1], OH Myeong-Jun[2], KANG Woun[3], JO Youn-Jung*[2] ([1]Sogang University, [2]Department of Physics, Kyungpook National University, [3]Department of Physics, Ewha Womans University)

B8.07 [16:12 - 16:24]

Strong correlation between the electronic and magnetic properties in the Dirac semimetal of $Ti_xZr_{1-x}Te_5$ / JUNG Myung Hwa*[1], JI Sanghyun[1], LEE Sang Eon[1] ([1]Sogang University)

B8.08 [16:24 - 16:36]
Hidden magnetic state of kagome-lattice $Co_3Sn_2(S,Se)_2$ single crystals / SHIN Dong-Hwa[1], JUN Jin-Hyeon[1], LEE Sang-Eon[1], JUNG Myung Hwa*[1] ([1]Sogang University)

[B9-ap] [F] Boron Nitrided based nanomaterials II
2020. 11. 04 Wednesday 15:00~16:48
Room: 09
좌장 : 김기강 성균관대학교
Chair : KIM Ki Kang (Sungkyunkwan University)

B9.01 [15:00 - 15:36]
Theoretical investigation on various color centers in hexagonal boron nitride / KWON Young-Kyun*[1] ([1]Department of Physics, Kyung Hee University)

B9.02 [15:36 - 16:12]
Investigation of growth and defects of hBN using atomic resolution TEM / LEE Zonghoon*[1,2] ([1]Department of Materials Science and Engineering, UNIST, [2]Center for Multidimensional Carbon Materials, IBS)

B9.03 [16:12 - 16:48]
Deep ultraviolet light emission from atomically thin hexagonal boron nitride van der Waals heterostructures / KIM Young Duck*[1] ([1]Department of Physics, Kyung Hee University)

[B10-ap] Magnetism and energy materials
2020. 11. 04 Wednesday 15:00~16:12
Room: 10
좌장 : 제숭근 전남대학교
Chair : JE Soong-Geun (Chonnam National University)

B10.01 [15:00 - 15:12]
Annealing effect on the magnetic properties due to the structural change of Mn_3Ga thin films / BANG Hyun-Woo[1], JUNG Myung Hwa*[1] ([1]Sogang University)

B10.02 [15:12 - 15:24]
Scaling of anomalous Hall effect in perpendicular magnetic CoSiB/Pt multilayers / NOH Hwayong*[1], GAUTAM Praveen[2], SHARMA Pradeep Raj[3] ([1]Sejong University, [2]Department of Physics, Sejong University, [3]Departmetn of Physics, Sejong University)

B10.03 [15:24 - 15:36]
Resonant coupling between two macro-spins by acoustic phonons / AN Kyongmo*[1], KOHNO Ryuhei[1], LITVINENKO Artem[1], NALETOV Vladimir[1,2], VILA Laurent[1], DE LOUBENS

Gregoire[3], BEN YOSSEF Jamal[4], VUKADINOVIC Nicolas[5], KLEIN Olivier[1] ([1]Physics, Univ. Grenoble Alpes, CEA, CNRS, France, [2]Institute of Physics, Kazan Federal University, Russian Federation, [3]Physics, SPEC, CEA-Saclay, CNRS, Université Paris-Saclay, [4]Physics, LabSTICC, CNRS, Université de Bretagne Occidentale, France, [5]Physics, Dassault Aviation, France)

B10.04 [15:36 - 15:48]

Role of non-thermal electrons in ultrafast spin dynamics of ferromagnetic multilayer / SHIM Je-ho[1,2], SYED Akbar Ali[1,2], KIM Jea-Il[1,2], PIAO Hong-Guang[3,4], LEE Sang-Hyuk[3], PARK Seung-Young[5], CHOI Yeon Suk[5], LEE Kyung Min[6], KIM Hyun-Joong[7], JEONG Jong-Ryul[6], HONG Jung-Il[7], KIM Dong Eon[*1,2], KIM Dong-Hyun[3] ([1]Physics Department, POSTECH, [2]Attosecond science, Max Planck POSTECH/KOREA Research Initiative, [3]Department of Physics, Chungbuk National University, [4]College of Science, China Three Gorges University, [5]Spin Engineering Physics Team, Korea Basic Science Institute, [6]Department of Material Science and Engineering and Graduate School of Energy Science and Technology, Chungnam National University, [7]Department of Emerging Materials Science, DGIST)

B10.05 [15:48 - 16:00]

Electrical detection of the inverse Edelstein effect on the surface of SmB_6 / KIM Je-hyun[1], JANG Chaun[2], WANG Xiangfeng[3], PAGLIONE Johnpierre[3], HONG Seokmin[2], SAYED Shehrin[4], CHUN Dongwon[5], KIM Dohun[*1] ([1]Department of Physics and Astronomy, Seoul National University, [2]Center for spintronics, KIST, [3]Maryland Quantum Materials Center, Department of Physics, University of Maryland, [4]Electrical Engineering and Computer Science, UC Berkeley, [5]Advanced Analysis Center, KIST)

B10.06 [16:00 - 16:12]

Probing hydrogen environments in quasicrystals by high-resolution 1H MAS NMR / KWEON Jin Jung[*1], KIM Hyo-Im[1], LEE Sang-hwa[2,3], KIM Jaeyong[2], LEE Sung Keun[1,4] ([1]School of Earth and Environmental Sciences, Seoul National University, [2]Department of Physics and Institute for High Pressure, Hanyang University, [3]Neutron and Radioisotope Application Research Division, Korea Atomic Energy Research Institute, [4]Institute of Applied Physics, Seoul National University)

[B11-ap] Quantum information and processing

2020. 11. 04 Wednesday 15:00~16:48

Room: 11

좌장 : 이길호 포항공과대학교

Chair : LEE Gil-Ho (POSTECH)

B11.01 [15:00 - 15:12]

Deep learning enhanced individual nuclear spin detection in diamond / JUNG Kyung-hoon[1], ABOBEIH Mohamed H[2], YUN Jiwon[1], KIM Gyeonghun[1], OH Hyunseok[1], ANG Henry[1], TAMINIAU Tim H[2], KIM Dohun[*1] ([1]Department of Physics and Astronomy, Seoul National University, [2]QuTech, Delft University of Technology)

B11.02 [15:12 - 15:24]

Adaptive compressive quantum process tomography / KIM Yosep[1], TEO Yong Siah[2], AHN Daekun[2], IM Dong-gil[*1], CHO Young-Wook[3], LEUCHS Gerd[4,5], SANCHEZ-SOTO Luis L.[4,6], JEONG Hyunseok[2], KIM Yoon-Ho[1] ([1]Deparment of Physics, POSTECH, [2]Department of Physics and Astronomy, Seoul National University, [3]Center for Quantum Information, KIST, [4]Max-Planck-Institut fur die Physik des Lichts, Staudtstrabe, [5]Institute of Applied Physics, Russian Academy of Sciences, [6]Departamento de Optica, Facultad de Fisica, Universidad Complutense)

B11.03 [15:24 - 15:36]

Three individual control of singlet-triplet qubits in a micromagnet integrated quantum dot array / JANG Wonjin[1], CHO Min-Kyun[1], KIM Jehyun[1], CHUNG Hwanchul[2], UMANSKY Vladimir[3], KIM Dohun[*1] ([1]Department of Physics and Astronomy, Seoul National University, [2]Department of Physics, Pusan National University, [3]Department of Condensed Matter Physics, Weizmann Institute of Science)

B11.04 [15:36 - 15:48]

Arbitrary parameter estimation via generalized weak value measurement / YOO Seung-Yeun[*1], KIM Yosep[1], IM Dong-Gil[1], LEE Gyu-Hyeok[1], LEE Chung-Hyun[1], KIM Yoon-Ho[1] ([1]Department of Physics, POSTECH)

B11.05 [15:48 - 16:00]

Realtime nanoscale quantum thermometry under arbitrary magnetic field using microwave dressed spin states in diamond / YUN Jiwon[1], KIM Dohun[*1] ([1]Department of Physics and Astronomy, Seoul National University)

B11.06 [16:00 - 16:12]

Time-bin qubit entanglement distribution over a wavelength-multiplexing quantum network / KIM Jin-Hun[*1], CHAE Jin-Woo[1], JEONG Youn-Chang[2], KIM Yoon-Ho[1] ([1]Physics, POSTECH, [2]연구부서, The affiliated institute of ETRI)

B11.07 [16:12 - 16:24]

Fast, scalable auto-tuning of the semiconductor quantum dot qubits via deep reinforcement learning / KIM Gyeonghun[1], JUNG Kyunghoon[1], KIM Minyoung[1], KIM Dohun[*1] ([1]Department of Physics and Astronomy, Seoul National University)

B11.08 [16:24 - 16:36]

Trapping a Free-propagating Single-photon into an Atomic Ensemble / KIM U-Shin[*1], IHN Yong Sup[2], LEE Chung-Hyun[1], KIM Yoon-Ho[1] ([1]POSTECH, [2]Quantum Physics Technology Directorate, Agency for Defense Development)

B11.09 [16:36 - 16:48]

Dispersion cancellation in a quantum interferometer with independent single-photons / IM Dong-gil[*1], KIM Yosep[1], KIM Yoon-Ho[1] ([1]Deparment of Physics, POSTECH)

[B12-st] [F] Understanding of Covid-19 outbreak II

2020. 11. 04 Wednesday 15:00~16:48

Room: 12

좌장 : 김범준 성균관대학교

Chair : KIM Beom Jun (Sungkyunkwan University)

B12.01 [15:00 - 15:12]

Numerical simulation approaches for stochastic epidemic model under the self-isolation / CHOI Kwangjong[1], CHOI Hoyun[1], KAHNG Byungnam*[1] ([1]Department of Physics and Astronomy, Seoul National University)

B12.02 [15:12 - 15:36]

Covid-19 outbreak under the K-quarantine model: numerical simulations on networks / CHOI Kwangjong[1], CHOI Hoyun[1], KAHNG Byungnam*[1] ([1]Department of Physics and Astronomy, Seoul National University)

B12.03 [15:36 - 16:12]

코로나19 확산 예측 및 비약물적 방역 정책 분석 / 손우식*[1] ([1]국가수리과학연구소)

B12.04 [16:12 - 16:48]

Data-driven modeling of COVID-19 pandemic / MORENO Yamir*[1,2] ([1]Institute for Biocomputation and Physics of Complex Systems (BIFI), University of Zaragoza, [2]Department of Theoretical Physics, Faculty of Sciences, University of Zaragoza)

[B13-B14] No session

[B15-op] [F] Colloidal Plasmonics & Metamaterials II

2020. 11. 04 Wednesday 15:00~16:36

Room: 15

좌장 : 이승우 고려대학교

Chair : LEE Seungwoo (Korea University)

B15.01 [15:00 - 15:24]

On-demand Delivery of Colloidal Metal Nanoparticles onto Arbitrary Solid Surfaces for Sensitive Molecular Detections / 강태욱*[1] ([1]서강대학교 화공생명공학과, 바이오융합기술연구소)

B15.02 [15:24 - 15:48]

Microfluidic Platforms for Surface Enhanced Raman Sensing / CHOO Jaebum*[1] ([1]Department of Chemistry, Chung-Ang University)

B15.03 [15:48 - 16:12]
Nanoframes: Synthesis and Applications / PARK Sungho*1 ([1]Department of Chemistry, Sungkyunkwan University)

B15.04 [16:12 - 16:36]
Lipid Nanotablet for Modular and Scalable DNA Computing / NAM Jwa-Min*1 ([1]Department of Chemistry, Seoul National University)

[B16-B18] No session

[B19-or] Status of Heavy Ion Accelerator Complex, RAON
2020. 11. 04 Wednesday 15:00~16:50
Room: 19
좌장 : **권영관** 기초과학연구원 중이온가속기건설구축사업단
Chair : KWON Young-Kwan (IBS)

B19.01 [15:00 - 15:24]
중이온가속기 현황 및 향후 계획 / 권면*1 ([1]기초과학연구원 중이온가속기건설구축사업단)

B19.02 [15:24 - 16:08]
중이온가속기 가속장치 구축현황 / 손영욱*1 ([1]기초과학연구원 중이온가속기건설구축사업단)

B19.03 [16:08 - 16:50]
중이온가속기 실험장치 구축현황 / 신택수*1 ([1]기초과학연구원 중이온가속기건설구축사업단)

[B20-or] How can you introduce computational science to your research?
2020. 11. 04 Wednesday 15:00~15:48
Room: 20
좌장 : **박민규** (주)버추얼랩
Chair : PARK Minkyu (Virtual Lab. Inc.)

B20.01 [15:00 - 15:48]
How can you introduce computational science to your research? / KIM Young-Kwang*1 ([1]Virtual Lab. Inc.)

Session C

2020 November 5(Thu) 09:00~10:48

[C1-pa] [F] Cornerstone for future collider projects I

2020. 11. 05 Thursday 09:00~11:12

Room: 01

좌장 : 이세욱 경북대학교

Chair : LEE Sehwook (Kyungpook National University)

C1.01 [09:00 - 09:36]

Future Circular e^+e^- Colliders / KLUTE Markus*1 ([1]Department of Physics, Massachusetts Institute of Technology)

C1.02 [09:36 - 10:24]

Calorimetry in the 21st Century / WIGMANS Richard*1 ([1]Department of Physics and Astronomy, Texas Tech University)

C1.03 [10:24 - 10:48]

Dual-Readout Calorimeter R&D in Korea for future e^+e^- colliders / YOO Hwidong*1 ([1]Department of Physics, Yonsei University)

C1.04 [10:48 - 11:12]

ML application for future e^+e^- colliders / LEE Jason*1 ([1]Department of Physics, University of Seoul)

[C2] No session

[C3-nu] Heavy-ion collision

2020. 11. 05 Thursday 09:00~10:24

Room: 03

좌장 : 권민정 인하대학교

Chair : KWEON Min Jung (Inha University)

C3.01 [09:00 - 09:12]

String shoving model in PYTHIA8 for long-range correlation in pp collisions / KIM Junlee*1, KIM Eun-Joo[1], LIM Sanghoon[2], JI SuJeong[2] ([1]Division of Science Education, Jeonbuk National University, [2]Department of Physics, Pusan National University)

C3.02 [09:12 - 09:24]

Development of Monte Carlo simulation for quarkonia production in heavy-ion collisions / LIM Sang Hoon*[1], LEE Su Houng[2], HONG Juhee[2], KIM Eun-Joo[3], KWEON MinJung[4], PARK Jaebeom[5], KIM Junlee[3], SEO Jinjoo[4] ([1]Physics Department, Pusan National University, [2]Physics Department, Yonsei University, [3]Division of Science Education, Jeonbuk National University, [4]Physics Department, Inha University, [5]Physics Department, Korea University)

C

C3.03 [09:24 - 09:36]

Status of the measurement of electrons from beauty-hadron decays in pp collisions at $\sqrt{s}$ = 13 TeV in ALICE / KWON Jiyeon*[1], KWEON Min Jung[1] ([1]Physics, Inha University)

C3.04 [09:36 - 09:48]

Measurement of electrons from beauty-hadron decays in Pb-Pb collisions at $\sqrt{s}$ NN = 5.02 TeV with ALICE detector / PARK Jong Han*[1] ([1]Inha University)

C3.05 [09:48 - 10:00]

Recent recents of photo-production of vector meson and jet in CMS heavy ion experiment. / KIM Yongsun*[1] ([1]Sejong University)

C3.06 [10:00 - 10:12]

The K_1 meson abundance in relativistic heavy-ion collisions / SUNG Haesom[1], HONG Juhee[1], CHO Sungtae[2], SONG Taesoo[3], LEE Su Houng*[1] ([1]Yonsei University, [2]The Department of Science Education, Kangwon National University, [3]Theory Department, GSI Helmholtzzentrum)

C3.07 [10:12 - 10:24]

Bose-Einstein correlation measurements at CMS / DOGRA Sunil Manohar*[1], MOON Chang-Seong[1] ([1]Department of physics, Kyungpook National University)

[C4] No session

[C5-co] [F] Excitons in quantum matter

2020. 11. 05 Thursday 09:00~10:36

Room: 05

좌장 : 김근수 연세대학교

Chair : KIM Keun Su (Yonsei University)

C5.01 [09:00 - 09:24]

Observation of exotic many-body exciton in $NiPS_3$ / PARK Je-Geun*[1] ([1]Seoul National University)

C5.02 [09:24 - 09:48]
Observation of excitonic instability in Ta_2NiSe_5 / KIM Bumjoon*[1] ([1]Department of Physics, POSTECH)

C5.03 [09:48 - 10:12]
Identification of the many-body exciton in the van der Waals antiferromagnet $NiPS_3$ / KIM Beom Hyun*[1] ([1]School of Computational Sciences, KIAS)

C5.04 [10:12 - 10:36]
Excitons in twisted $MoSe_2$/ $MoSe_2$ bilayers: the effect of broken mirror symmetry / SUNG Jiho*[1] ([1]Chemistry and Chemical Biology, Harvard University)

[C6-co] [E] [F] High-pressure physics I
2020. 11. 05 Thursday 09:00~10:36
Room: 06
좌장 : 김재용 한양대학교
Chair : KIM Jaeyong (Hanyang University)

C6.01 [09:00 - 09:24]
Opportunities of high-pressure researches as an effective route for tuning electronic states of solids / KIM Kee Hoon*[1,2] ([1]Center for Novel States of Complex Materials and Research, Department of physics and astronomy, Seoul National University, [2]Institute of Applied Physics, Department of physics and astronomy, Seoul National University)

C6.02 [09:24 - 09:48]
Multi-step pathways of water freezing and ice melting under dynamic compression / LEE Geun Woo*[1,2], LEE Yun-Hee Lee[1,2], KIM Yong-Jae[1], LEE Sooheyong[1,2], CHO Yong Chan[1] ([1]Frontier of Extreme Physics, KRISS, [2]Nano Science, University of Science and Technology)

C6.03 [09:48 - 10:12]
Pressure-induced superconductivity in the double helical antiferromagnet CrAs / PARK Tuson*[1] ([1]Physics, Sungkyunkwan University)

C6.04 [10:12 - 10:36]
Crystal growth in water and aqueous solutions under dynamic compression condition / LEE Yun-Hee[1], KIM Yongjae[1], LEE Sooheyong[1], CHO Yongchan[1], LEE Geun Woo*[1] ([1]Frontier of Extreme Physics, KRISS)

[C7-co] Dielectric/Functional Oxides

2020. 11. 05 Thursday 09:00~10:00

Room: 07

좌장 : 조지영 광주과학기술원

Chair : JO Ji Young (GIST)

C7.01 [09:00 - 09:12]

First-principles study on rotation-driven ferroelectricity in $CaTiO_3$ induced by interfacial coupling / KIM Jeong Rae[1,2], JANG Jinhyuk[3], GO Kyoung-June[3], PARK Se Young*[1,2,4], ROH Chang Jae[5], BONINI John[6], KIM Jinkwon[1,2], LEE Han Gyeol[1,2], RABE Karin M[6], LEE Jong Seok[5], CHOI Si-Young[3], NOH Tae Won[1,2], LEE Daesu[7,8] ([1]Center for Correlated Electron Systems, CCES (IBS), [2]Department of Physics and Astronomy, Seoul National University, [3]Department of Materials Science and Engineering, POSTECH, [4]Department of physics, Soongsil University, [5]Department of Physics and Photon Science, GIST, [6]Department of Physics and Astronomy, Rutgers University, [7]Department of Physics, POSTECH, [8]Theoretical Physics, APCTP)

C7.02 [09:12 - 09:24]

Reversible photoluminescence modulation of multifunctional optical materials Eu^{3+} doped Sr_2SnO_4 ceramics based on photochromism / LEE Dong Jae*[1], LEE Yun Sang[1] ([1]Department of Physics and Integrative Institute of Basic Sciences, Soongsil University)

C7.03 [09:24 - 09:36]

Thickness dependence of electrocatalytic activity in epitaxial $La_{0.7}Sr_{0.3}MnO_3$ thin films / LEE Jegon[1], ADIGA Prajwal[2], LEE Sang A[3], STOERZINGER Kelsey A.[2], CHOI Woo Seok*[1] ([1]Physics, Sungkyunkwan University, [2]School of Chemical, Biological and Environmental Engineering, Oregon State University, [3]Department of Physics, Pukyong National University)

C7.04 [09:36 - 09:48]

Emerging Soft Phonon Mode of the Ferroelastic WO_3 Twin Wall Explored by Raman Spectromicroscopy / SEO Jeongdae[1], PARK Heung-Sik[1], YUN Shinhee[1], LEE Jin Hong[1], YANG Chan-Ho*[1] ([1]Physics, KAIST)

C7.05 [09:48 - 10:00]

Decoupling of Metal-to-Insulator Transition and Crystal Field Effects of VO_2 / HWANG Inhui[1,2], PARK Changin[1], SUN Chengjun[2], HAN Sang Wook*[1] ([1]Department of Physics Education, Jeonbuk National University, [2]X-ray Science Division, Argonne National Laboratory)

[C8-co] Magnetism

2020. 11. 05 Thursday 09:00~10:36

Room: 08

좌장 : 김상훈 울산대학교

Chair : KIM Sanghoon (University of Ulsan)

C8.01 [09:00 - 09:12]

Tunable phase transition temperature of FeRh thin film by Co doping / JUNG Myung Hwa*[1], SEO Sang Il[1], PARK Mintae[1] ([1]Sogang University)

C8.02 [09:12 - 09:24]

Epitaxial growth of FeRh thin films and adjusting transition temperature through proximity effect between Co doped Mn_3Ga / JUNG Myung Hwa*[1], PARK Mintae[1], YOO Woosuk[1] ([1]Sogang University)

C8.03 [09:24 - 09:36]

Resonance Raman Scattering Studies of localized spin excitation in hexagonal $LuMnO_3$ / YANG In-Sang*[1], KIM Seung[1], NAM Jiyeon[1], WANG Yazhong[2], CHEONG Sang-Wook[2] ([1]Ewha Womans University, [2]Rutgers Center for Emergent Materials and Department of Physics and Astronomy, Rutgers University)

C8.04 [09:36 - 09:48]

Electronic and Magnetic Properties of GdPtBi / JUNG Myung Hwa*[1], CHOI Mi Ri[1], LEE Sang-Eon[1] ([1]Sogang University)

C8.05 [09:48 - 10:00]

Effect of thermal annealing on electronic properties and microstructure of polycrystalline $SrFe_{12}O_{19}$ / KANG Kung Wa [2], JEEN Hyoung Jeen*[1] ([1]Department of Physics, Pusan National University, [2]Department of Physics, Pusan National University)

C8.06 [10:00 - 10:12]

Observation of unconventional anomalous Hall effect at compensated $Mn_{2.3}Pd_{0.7}Ga$ thin film / CHOI Won-Young[1], YOO Woosuk[1], JUNG Myung Hwa*[1] ([1]Sogang University)

C8.07 [10:12 - 10:24]

Comparison between Perpendicular and Longitudinal Exchange Bias Effects in $(Mn, Co)_3Ga/Mn_3Ga$ Bilayers / KIM HyeonSu[1], YOO Woosuk[1], JUNG Myung Hwa*[1] ([1]Sogang University)

C8.08 [10:24 - 10:36]

Structural study of nitrogen ion beam implanted $GdFe_{12}$ films / CHO Dae Gill[1], LEE Joonhyuk[1], JEEN Hyoung Jeen*[1] ([1]Department of Physics, Pusan National University)

[C9-ap] [F] Quantum information processing using atoms and devices

2020. 11. 05 Thursday 09:00~10:36

Room: 09

좌장 : 최태영 이화여자대학교

Chair : CHOI Taeyoung (Ewha Womans University)

C9.01 [09:00 - 09:24]

Quantum Information Processing using Superconducting Quantum Devices / CHONG Yonuk*1 ([1]SAINT, Sungkyunkwan University)

C9.02 [09:24 - 09:48]

Quantum simulations with ultracold atoms / CHOI Jae Yoon*1 ([1]Physics Department, KAIST)

C9.03 [09:48 - 10:12]

Spin sensing and quantum control of single molecules / ZHANG Xue[1,2], WANG Yu[1,2], WILLKE Philip[1,2], AUBIN Hervé[3], HEINRICH Andreas J.[1,4], CHOI Taeyoung*[1,4] ([1]Center for Quantum Nanoscience, Institute for Basic Science (IBS), [2]Ewha Womans University, [3]Centre de Nanosciences et de Nanotechnologies, CNRS, Univ. Paris-Sud, Universités Paris-Saclay, France, [4]Department of Physics, Ewha Womans University)

C9.04 [10:12 - 10:36]

Quantum information with trapped ions / LEE Moonjoo*1 ([1]Department of Electrical Engineering, POSTECH)

[C10-ap] [F] Direct visualization of defects and reconstruction in 2D layered crystals

2020. 11. 05 Thursday 09:00~10:48

Room: 10

좌장 : 김관표 연세대학교

Chair : KIM Kwanpyo (Yonsei University)

C10.01 [09:00 - 09:36]

Engineering domain topology and symmetry in the twisted bilayer vdW materials / YOO Hyobin*1 ([1]Department of Physics, Sogang University)

C10.02 [09:36 - 10:12]

Cooperative study of TEM and simulation on mediator atom in 2D materials and various van der Waals heterostructures. / LEE Gun-Do*1 ([1]Department of Materials Science and Engineering, Seoul National University)

C10.03 [10:12 - 10:48]

Advanced interface analysis of 2D-TMD materials using cross-sectional transmis-

sion electron microscopy / JEONG Hu Young*[1] ([1]UNIST Central Research Facilities, UNIST)

[C11-ap] [F] Next-generation display technology based on nanomaterials

2020. 11. 05 Thursday 09:00~10:36

Room: 11

좌장 : 이현복 강원대학교

Chair : LEE Hyunbok (Kangwon National University)

C11.01 [09:00 - 09:24]

The Interface Mixing Effect of Solution Processed OLEDs / 서민철*[1] ([1]경희대학교 정보디스플레이학과)

C11.02 [09:24 - 09:48]

Metal halide perovskite LEDs prepared by ultrasonic spray coating process / IM Sang Hyuk*[1] ([1]Department of Chemical and Biological Engineering, Korea University)

C11.03 [09:48 - 10:12]

Ultrathin wearable quantum dot light emitting diodes / KIM Dae-Hyeong*[1,2] ([1]Center for Nanoparticle Research, Institute for Basic Science, Seoul National University, [2]School of Chemical and Biological Engineering, Seoul National University)

C11.04 [10:12 - 10:36]

White QLEDs with High Color Quality / KWAK Jeonghun*[1], HONG Ahyoung[1] ([1]Department of Electrical and Computer Engineering, Seoul National University)

[C12-st] Complex Systems I

2020. 11. 05 Thursday 09:00~10:48

Room: 12

좌장 : 하미순 조선대학교

Chair : HA Meesoon (Chosun University)

C12.01 [09:00 - 09:24]

Spontaneous versus interaction-driven burstiness in human dynamics: The case of Wikipedia edit history / 조항현*[1] ([1]가톨릭대학교)

C12.02 [09:24 - 09:36]

Friendly-rivalry solution to the iterated n-person public-goods game / MURASE Yohsuke[1], BAEK Seung Ki*[2] ([1]Center for Computational Science, RIKEN, [2]Department of Physics, Pukyong National University)

C12.03 [09:36 - 09:48]

Photosystem network reveals that diverse chlorophylls facilitate photoprotection / KIM Heetae*[1], KIM Eunchul[2,3], CONTRERAS Mauricio Vargas[4], MINAGAWA Jun[3] ([1]Data Science Institute, Universidad del Desarrollo, [2]Division of Biological Science, Nagoya University, [3]Division of Environmental Photobiology, National Institute for Basic Biology, [4]Instituto de Matemática y Física, Universidad de Talca)

C12.04 [09:48 - 10:00]

Betweenness Centrality Distribution of Hypergraphs / LEE Jongshin[1], KAHNG Byungnam*[1] ([1]Department of Physics and Astronomy, Seoul National University)

C12.05 [10:00 - 10:12]

The stability and feasibility of ecological networks. / LEE Hyunwoo[1], LEE Jae Woo[1], LEE Deok-Sun*[2] ([1]Department of Physics, Inha University, [2]School of Computational Sciences, KIAS)

C12.06 [10:12 - 10:24]

인천 버스노선의 복잡계 네트워크적 특성 / LEE Jae Woo*[1], LEE HyunMin[1] ([1]Inha University, [2]Physics, Inha University)

C12.07 [10:24 - 10:36]

The spatial transition of urban retail areas in Hongdae revealed through online SNS data: in perspective of complex network. / CHEON SangHyun*[1], LEE Minjin[2], KIM Hangil[3] ([1]Urban Planning, Hongik University, [2]Department of Energy Science, Sungkyunkwan University, [3]Graduate School of Environmental Studies, Seoul National University)

C12.08 [10:36 - 10:48]

Diversity and Stability on an Open Evolving Network Model / PARK Youngjai[1], PARK Hye Jin[1,2], SON Seung-Woo*[1] ([1]Department of Applied Physics, Hanyang University, [2]Statistical Physics of Ecology and Evolution, APCTP)

[C13] No session

[C14-pl] Accelerator, Beam, Laser Plasma, Radiation Sources, and Pulsed Power Systems

2020. 11. 05 Thursday 09:00~10:12

Room: 14

좌장 : 정모세 울산과학기술원

Chair : CHUNG Moses(UNIST)

C14.01 [09:00 - 09:12]

Experimental Transverse Beam Emittance Measurement Using Solenoid Magnet

Strength Variation in the AB-BNCT / PARK Cha Won[*1], HONG Bong Hwan[1], CHO Il Sung[1], MIN Sun-Hong[1], KIM Minho[1], MA Sukhwal[1], JUNG Hyun woo[1], HWANG Won Taek[1] ([1]Division of Applied Rare Isotope, KIRAMS)

C14.02 [09:12 - 09:24]
Development of UNIST EBIT / CHUNG Moses[*1], SHIN Bokkyun[1], PARK SungNam[1], YOO Kyounghun[1], RYU Dongsu[1] ([1]Department of Physics, UNIST)

C14.03 [09:24 - 09:36]
Generation of isolated, terawatt, attosecond X-ray free-electron laser pulse by investigating the effect of high slice energy spread of an electron beam / SHIM Chi Hyun[1], PARC Yong Woon[2,3], KIM Dong Eon[*4,5] ([1]Accelerator Control Team, Pohang Accelerator Laboratory, [2]Beam Operation Team, Pohang Accelerator Laboratory, [3]Division of Advanced Nuclear Engineering, POSTECH, [4]Physics Department, POSTECH, [5]Max Planck Center for Attosecond Science, Max Planck POSTECH/Korea Res. Init.)

C14.04 [09:36 - 09:48]
Radiation reaction of a charged particle undergoing uniform circular motion / KANG Teyoun[1], HUR Min Sup[*1] ([1]Physics, UNIST)

C14.05 [09:48 - 10:00]
Simulation study of phase-matched THz emission from an axially modulated magnetized plasma / KUMAR Manoj[1], KANG Teyoun[1], SONG Hyung Seon[1], HUR Min Sup[*1] ([1]Physics, UNIST)

C14.06 [10:00 - 10:12]
자기유체역학 코드를 이용한 고전압 펄스전원장치의 엑스 핀치(X-pinch) 플라즈마 전산모사 Numerical Study of X pinch plasmas evolution on pulsed power generator using MHD Simulation / BYUN Sangmin[1], NA Yong-Su[*1], CHUNG Kyoung-Jae[1], KIM Deok-Kyu[2], LEE Chanyooung[1], HAM Seunggi[1], RYU Jonghyeon[1] ([1]Seoul National University, [2]Technology Research Center, Agency for Defense Development)

[C15-op] Optics I
2020. 11. 05 Thursday 09:00~10:36
Room: 15
좌장 : 김명기 고려대학교
Chair : KIM Myung Ki (Korea University)

C15.01 [09:00 - 09:12]
Non-resonant laser using a light trapping scattering cavity / LEE KyeoReh[*1,3], MA Ho Jin[2], ROTERMUND Fabian[1], KIM Do Kyung[2], PARK YongKeun[*1,3] ([1]Department of Physics, KAIST, [2]Department of Materials Science and Engineering, KAIST, [3]KAIST Institute for Health Science and Technology, KAIST)

C15.02 [09:12 - 09:24]
3D Stochastic Interferometry / GRACIANI Guillaume*[1], AMBLARD Francois[1] ([1]CSLM, IBS)

C15.03 [09:24 - 09:36]
High-contrast, Intense Single-cycle Pulses from multiple-plates in a Double-stage Configuration / KIM Dong Eon*[1,2], SEO Meenkyo[1,2], TSENDSUREN Khurelbaatar[1,2], MITRA Sambit[3,4], KLING Matthias[3,4] ([1]Physics Department, POSTECH, [2]Attosecond Science, Max Planck Center for Attosecond Science, [3]Quantum optics, Max Planck Institute of Quantum optics, [4]Physics Department, Ludwig Maximilian University of Munich, Germany)

C15.04 [09:36 - 09:48]
Ultrafast dynamics of electron-phonon coupling in 2H-$MoTe_2$ thin film / KIM Joon-soo[1,2], PARK Jin Cheol[1,2], KIM Ji-Hee*[1,2] ([1]Department of Energy Science, Sungkyunkwan University, [2]Center for Integrated Nanostructure Physics (CINAP), IBS)

C15.05 [09:48 - 10:00]
Development of a SESAM-assisted Kerr-lens mode-locked laser with the SESAM located at the inside of the cavity / KO Do-Kyeong*[1], KWON Seong-Hoon[1], SONG Dong Hoon[2], KIM In-Sik[3] ([1]Dept. of Physics and Photon Science, GIST, [2]Bio-Medical IT Convergence Research Department, Electronics and Telecommunications Research Institute, Daejeon 34129, Republic of Korea, ETRI, [3]Molecular Biophysics and Integrated Bioimaging Division, Lawrence Berkeley National Lab)

C15.06 [10:00 - 10:12]
레이저 유도 X-선 기반 금속 단백질 형광 측정 연구 / KO Do-Kyeong*[1], KANG Jungu[1] ([1]Dept. of Physics and Photon Science, GIST)

C15.07 [10:12 - 10:24]
Temporal contrast measurement using tunneling ionization / KIM Kyung Taec*[1,2], CHO Wosik[1,2] ([1]Department of Physics and Photon Science, GIST, [2]Center for Relativistic Laser Science, Institute for Basic Science)

C15.08 [10:24 - 10:36]
Electrically tunable spatial light complex amplitude modulator / CHOI Minho[1], CHOI Jaewu*[1] ([1]Infomation Display, Kyung Hee University)

[C16] No session

[C17-se] [F] Future Optoelectronic Materials and Devices

2020. 11. 05 Thursday 09:00~10:12

Room: 17

좌장 : 정문석 성균관대학교

Chair : JEONG Mun Seok (Sungkyunkwan University)

C17.01 [09:00 - 09:24]

New directions for optoelectronics with a valley degree of freedom / GONG Su-Hyun*[1]

([1]Department of Physics, Korea University)

C17.02 [09:24 - 09:48]

Tuning the excitonic properties with semiconductor-based nanocavities / CHO Chang-Hee*[1] ([1]Department of Emerging Materials Science, DGIST)

C17.03 [09:48 - 10:12]

Ultrasensitive Plasmon-free Surface-enhanced Raman Spectroscopy with Femto-molar Detection Limit from 2D van der Waals Heterostructure / PARK HYESUNG*[1]

([1]Department of Materials Science and Engineering, UNIST)

[C18-se] Devices - electronic, optoelectronic, organic & flexible

2020. 11. 05 Thursday 09:00~10:48

Room: 18

좌장 : 김종수 영남대학교

Chair : KIM Jong Su (Yeungnam University)

C18.01 [09:00 - 09:12]

Multi-level switching mechanism of resistive memory device based on SiO_2 nanoparticle-decorated TiO_x / KWON Sera[1], KIM Min-Jung[1], CHUNG Kwun Bum*[1] ([1]Division of Physics and Semiconductor Science, Dongguk University)

C18.02 [09:12 - 09:24]

산화아연 박막트랜지스터 능동어레이를 이용한 초고해상도 유연 압력센서 제조 및 이를 이용한 로봇집게의 폐루프 제어 / OH Hongseok*[1], YIP Michael[1], YI Gyuchul[2], DAYEH Shadi[1]

([1]Electrical and Computer Engineering, UCSD, [2]Department of Physics and Astronomy, Seoul National University)

C18.03 [09:24 - 09:36]

Analysis for growth and drug reaction mechanism monitoring of NIH 3T3 cells using impedance biosensor with various frequencies / LEE Gayoung[1], JEONG Jaehun[1], SHIN Sooyong[2], KIM Yeeun[1], CHOI Jisoo[1], JEON Sungho[2], JANG Moon Gyu*[1,3] ([1]School of Nanoconvergence Technology, Hallym University, [2]Department of Life Science and Multidisciplinary Institute, Hallym University, [3]Center of Nano Convergence Technology, Hallym University)

C18.04 [09:36 - 09:48]

Optimization of the resolution of microfluidic chip calorimeters for sensing a few mammalian cells / NAM Sung Min[1], LEE Wonhee*[1,2] ([1]Graduate School of Nanoscience and Technology, KAIST, [2]Department of Physics, KAIST)

Session D

2020 November 5(Thu) 14:00~15:48

[D1-pa] [F] Cornerstone for future collider projects II

2020. 11. 05 Thursday 14:00~15:48

Room: 01

좌장 : 유휘동 연세대학교

Chair : YOO Hwi-Dong (Yonsei University)

D1.01 [14:00 - 14:36]

Fast timing using silicon sensors with intrinsic gain in the CMS upgrade / STUART David*1 ([1]Department of Physics, University of California, Santa Barbara)

D1.02 [14:36 - 15:00]

ASIC Development for LGAD-based CMS Endcap Timing Layer (ETL) Upgrade / MOON Chang-Seong*1 ([1]Department of Physics, Kyungpook National University)

D1.03 [15:00 - 15:24]

Plan for LGAD sensor testing in Korea / YOO Jae Hyeok*1 ([1]Department of Physics, Korea University)

D1.04 [15:24 - 15:48]

HPC application for future collider projects / GOH Junghwan*1 ([1]Department of Physics, Kyunghee University)

[D2-pa] Non-accelerator I

2020. 11. 05 Thursday 14:00~16:00

Room: 02

좌장 : 오유민 기초과학연구원

Chair : OH Yoomin (IBS)

D2.01 [14:00 - 14:12]

Status and performance of the AMoRE-I detectors / KIM HAN BEOM[1,2], WOO Kyungrae[1,3], KWON Dohyung[1,3], KIM Yong-Hamb*1 ([1]Center for Underground Physics, IBS, [2]Department of Physics & Astronomy, Seoul National University, [3]IBS School, University of Science and Technology (UST))

D2.02 [14:12 - 14:24]
Analysis tools for the AMoRE-I experiment / WOO Kyung-Rae[1,2], KIM Yong-Hamb[*1,2], LEE Yong-Chang[1,3], KWON Do-Hyung[1,2], KIM Han-Bum[1,3], KIM Hye-Lim[1,4] ([1]Center for Underground Physics, IBS, [2]Basic Science, UST, [3]Physics & Astronomy, Seoul National University, [4]Physics, Kyungpook National University)

D2.04 [14:24 - 14:36]
Alpha Background Modeling for AMoRE-Pilot Experiment / SARI Mona Berlian[*1,2], JEON Eunju[1], KIM Hong Joo[3], DJAMAL Mitra[1] ([1]Center for Underground Physics, IBS, [2]Department of Physics, Bandung Institute of Technology, [3]Department of Physics, Kyungpook National University)

D2.05 [14:36 - 14:48]
Status of AMoRE-II / LEE Jai Son[*1] ([1]CUP, IBS)

D2.06 [14:48 - 15:00]
Neutron and muon-induced background simulations for AMoRE-II shield design / LEE Moo Hyun[*1,2], SEO Jeewon[1,2], JEON Eunju[2] ([1]IBS School, University of Science and Technology, [2]Center for Underground Physics (CUP), IBS)

D2.07 [15:00 - 15:12]
Status of COSINE-100 experiment / LEE In soo[*1] ([1]Center for underground physics, IBS)

D2.08 [15:12 - 15:24]
COSINE-100 annual modulation search / PRIHTIADI Hafizh[*1] ([1]Physics, Center for Underground Physics, IBS)

D2.09 [15:24 - 15:36]
Search for dark matter with COSINE-100 NaI(Tl) detectors / KO Young Ju[*1] ([1]IBS)

D2.10 [15:36 - 15:48]
Neutron monitoring at Y2L / YU Gyunho[*1], KO Youngju[2] ([1]Physics, Sungkyunkwan University, [2]CUP, IBS)

[D3-nu] [E] [F] Physics of CENuM

2020. 11. 05 Thursday 14:00~16:24

Room: 03

좌장 : 홍병식 고려대학교

Chair : HONG Byungsik (Korea University)

D3.01 [14:00 - 14:24]

Heavy flavor measurements and new observables in the future with ALICE / KWEON Min Jung*1 ([1]Inha University)

D3.02 [14:24 - 14:48]

Hadron production models in heavy ion collisions / CHO Sung Tae*1 ([1]Kangwon National University)

D3.03 [14:48 - 15:12]

Lattice-QCD projects in CENuM / NAM Seung-il*1, WAKAYAMA Masayuki[2], HOSAKA Atsushi[3] ([1]Department of Physics, Pukyong National University, [2]Department of Physics, Kokushikan University, [3]Research Center for Nuclear Physics (RCNP), Osaka University)

D3.04 [15:12 - 15:36]

Lambda(1405) as a hadronic molecule / HYODO Tetsuo*1 ([1]Tokyo Metropolitan University, Japan)

D3.05 [15:36 - 16:00]

Revisiting nuclear symmetry energy with KIDS density functional / HYUN Chang Ho*1 ([1]Daegu University)

D3.06 [16:00 - 16:24]

Quasi-elastic (e; e′p) reaction using various nuclear models / KIM Kyungsik*1 ([1]Liberal Arts and Science, Korea Aerospace University)

[D4-as] Astrophysics Experiments/Observations

2020. 11. 05 Thursday 14:00~15:24

Room: 04

좌장 : 원은일 고려대학교

Chair : WON Eunil (Korea University)

D4.01 [14:00 - 14:12]

Updated preliminary analysis of TAx4 hybrid trigger and events / KIM Sangwoo[1,2], JEONG Hyomin[1,2], LEE Kwangho[1,2], KIM Minhyo[1,2], FUJITA Keitaro[5], PARK IL Hung*[1,2], YANG Jongman[2], CHEON Byunggu[3], KIM Hangbae[3], SAGAWA Hiroyuki[4], KIDO Eiji[4] ([1]Physics, Sungkyunkwan University, [2]성균관대학교 한일 우주선 공동연구센터 물리학과, [3]한양대학교 물리학과, [4]동경대 일본 우주선 연구소 물리학과, [5]Physics, Osaka City University)

D4.02 [14:12 - 14:24]

Preliminary analysis on energies and arrival directions of UHECRs detected by TAx4 Surface Detectors / JEONG Hyomin[1,2], PARK IL Hung*[1,2], LEE Kwangho[1,2], KIM Sang-woo[1,2], KIM Minhyo[1,2], FUJISUE Kozo[4], KIDO Eiji[5], YANG Jongman[2], CHEON Byeonggu[3], KIM Hangbae[3], SAGAWA Hiroyuki[4] ([1]Physics, Sungkyunkwan University, [2]Cooperation center for Cosmic Ray Research, Sungkyunkwan University, [3]Physics, Hanyang University, [4]International Cosmic Ray Research, The University of Tokyo, [5]Astrophysical Big Bang Laboratory, RIKEN)

D4.03 [14:24 - 14:36]

The study of energy-scale of UHECR with result with air fluoresence measurement using 15 EeV electron shower / CHUNG Moses*[1], SHIN Bokkyun[1], COLLABORATION For The sFLASH[1], RYU Dongsu[1] ([1]Department of Physics, UNIST)

D4.04 [14:36 - 14:48]

A search for secluded dark matter with / CHRISTOPH Toennis*[1] ([1]Physics, Sungkyunkwan University)

D4.05 [14:48 - 15:00]

Sensitivity analysis of SISA experiment and simulation of Stellar intensity interferometer / HONG Gihan[1], LEE Kwangho[1], KIM M.H.[1], KIM Chanyeol[1], PARK IL Hung*[1], WON Eunil[2] ([1]Physics, Sungkyunkwan University, [2]Physics, Korea University)

D4.06 [15:00 - 15:12]

Investigation on developing new coating materials for Advanced LIGO Plus (A+LIGO) with reduced coating Brownian noise / LEE Kyung-ha*[1] ([1]Physics, Sungkyunkwan University)

D4.07 [15:12 - 15:24]

Identification of Lensed Gravitational Waves with Deep Learning / KIM Kyungmin*[1], LEE Joongoo[1,2], HANNUKSELA Otto A.[3,4], LI Tjonnie G. F.[5] ([1]Optical Astronomy Division, KASI, [2]Department of Physics and Astronomy, Seoul National University, [3]Nikhef - National Institute for Subatomic Physics, [4]Department of Physics, Utrecht University, [5]Department of Physics, The Chinese University of Hong Kong)

[D5-co] [F] Nano/Mesoscopic system: Quantum Coherence in Condensed Matter

2020. 11. 05 Thursday 14:00~15:12

Room: 05

좌장 : 심흥선 한국과학기술원

Chair : SIM Heung-Sun (KAIST)

D5.01 [14:00 - 14:24]

Intermediate-excitation single electron source / CHO Sung Un[2], KIM Bum-Kyu[1],

PARK Wanki[2], SEO Minky[1], PARK DongSung T.[2], CHOI Hyung-Kook[3], KIM Nam[1], SIM Heung-Sun[2], BAE Myung-Ho*[1] ([1]KRISS, [2]Department of Physics & Center for Quantum Coherence in Condensed Matter, Korea Advanced Institute of Science and Technology, [3]Department of Physics, Jeonbuk National University)

D5.02 [14:24 - 14:48]
Imaging current flow in transport devices using a solid-state spin magnetometer / LEE Donghun*[1] ([1]Physics, Korea University)

D5.03 [14:48 - 15:12]
Graphene-based Josephson junction microwave bolometer / LEE Gil-Ho*[1] ([1]Department of Physics, POSTECH)

[D6-co] [E] [F] High-pressure physics II
2020. 11. 05 Thursday 14:00~15:36
Room: 06
좌장 : 조연정 경북대학교
Chair : JO Youn Jung (Kyungpook National University)

D6.01 [14:00 - 14:24]
Emerging New Quantum Phases in $GaTa_4Se_8$ under pressure / HAN Myung Joon*[1] ([1]Department of Physics, KAIST)

D6.02 [14:24 - 14:48]
Pressure-induced phase transitions and superconductivity in magnesium carbides / KIM Sooran*[1], KIM Kyoo[2], KOO Jahyun[3], LEE Hoonkyung[3], MIN Byung Il[4], KIM Duck Young[5] ([1]Department of Physics Education, Kyungpook National University, [2]Korea Atomic Energy Research Institute, Daejeon, [3]Department of Physics, Konkuk University, [4]Department of Physics, POSTECH, [5]Center for High Pressure Science and Technology Advanced Research, Shanghai)

D6.03 [14:48 - 15:12]
Extraordinary pressure-induced quantum phase transition from superconducting to charge-density wave state in $LuPd_2In$ / KIM Heejung*[1,2], SHIM J. H.[3], KIM Sooran[4], PARK Jae-Hoon[1,2,6], KIM Kyoo[2,5], MIN BYUNG IL[2] ([1]MPPHC-CPM, Max Plank POSTECH/Korea Research Initiative, [2]Department of physics, POSTECH, [3]Department of Chemistry, POSTECH, [4]Department of Physics Education , Kyungpook National University, [5]신소재 융합기술연구부 , KAERI, [6]Division of Advanced Materials Science, POSTECH)

D6.04 [15:12 - 15:36]
Alloying and pressure effect on Metal-insulator transition of $NiS_{2-x}Se_x$ / JANG Bo Gyu[1], PARK Ina[2], SHIM Ji Hoon[2], KIM Duck Young*[1] ([1]Center for High Pressure Science and Technology Advanced Research (HPSTAR), China, [2]Department of Chemistry, Pohang Uni-

versity of Science and Technology)

[D7-co] [F] Theoretical progress of Spin-orbitronics

2020. 11. 05 Thursday 14:00~16:00

Room: 07

좌장 : 임성현 울산대학교

Chair : RHIM Sonny (University of Ulsan)

D7.01 [14:00 - 14:24]

Magnetization dynamics and spin transport in compensated ferrimagnets / LEE Kyung-Jin*1 ([1]Department of Physics, KAIST)

D7.02 [14:24 - 14:48]

Diffusive transport of orbital angular momentum/ KIM Kyoung-Whan*1, HAN Seungyun[2], LEE Hyun-Woo[2] ([1]Center for Spintronics, KIST, [2]Department of Physics, POSTECH)

D7.03 [14:48 - 15:12]

Orbital transport from first-principles / GO Dongwook*1,2 ([1]Peter Grünberg Institut, Forschungszentrum Jülich, [2]Institute of Physics, Johannes Gutenberg University of Mainz)

D7.04 [15:12 - 15:36]

Spin-orbit-coupling-enabled topological hydrodynamics / KIM Se Kwon*1 ([1]Physics, KAIST)

D7.05 [15:36 - 16:00]

Berry phase effects and anomaly in Kramers-Weyl semimetals with single Weyl point / CHEON Suik[1], CHO Gil Young[1], LEE Hyun-Woo*1 ([1]Department of Physics, POSTECH)

[D8-co] Strongly Correlated I

2020. 11. 05 Thursday 14:00~15:36

Room: 08

좌장 : 고아라 전남대학교

Chair : GO Ara (Chonnam National University)

D8.01 [14:00 - 14:12]

Spin-orbital separation and orbital differentiation in Hund metals / LEE Seung-Sup*1 ([1]Faculty of Physics, Ludwig Maximilian University of Munich, Germany)

D8.02 [14:12 - 14:24]

Non-Fermi Liquids in Conducting 2D Networks / LEE Jongjun Michael[1], OSHIKAWA Masaki[2], CHO Gil Young*1 ([1]Department of Physics, POSTECH, [2]Institute for Solid State Physics, The University of Tokyo)

D8.03 [14:24 - 14:36]

Many-body flatband localisation / DANIELI Carlo[4], ANDREANOV Alexei[*1,2], FLACH Sergej[1,2,3] ([1]Center for Theoretical Physics of Complex Systems, IBS, [2]Basic Science Program (IBS School), UST, [3]New Zealand Institute for Advanced Study, Massey University, [4]Condensed Matter, Max Planck Institute for the Physics of Complex Systems)

D8.04 [14:36 - 14:48]

Emergences of the Fermi liquid and the Gapped phase out of quantum critical point by the symmetry breaking. / SIN Sang Jin[*1], OH Eunseok[1], YUK Taewon[1] (1physics department, Hanyang University)

D8.05 [14:48 - 15:00]

Many-Body Invariants for Chern and Chiral Hinge Insulators / KANG Byungmin[2], LEE Wonjun[1], CHO Gil Young[*1] ([1]Department of Physics, POSTECH, [2]Department of Physics, KIAS)

D8.06 [15:00 - 15:12]

Causal projection method for imaginary-time many-body simulations / HAN Mancheon[1], CHOI Hyoung Joon[*1] ([1]Department of Physics, Yonsei University)

D8.07 [15:12 - 15:24]

Symmetry Protected Magnetic Weyl Nodal Loops in 5d[1,2] Cubic Double Perovskites / SONG Young-Joon[1], LEE Kwan-Woo[*1] ([1]Division of Display and Semiconductor Physics, Korea University)

D8.08 [15:24 - 15:36]

Nontrivial Topology induced by Magnon-Phonon Hybridization / KIM Se Kwon[*1], LEE Kyung-Jin[2], GO Gyungchoon[2] ([1]Physics, KAIST, [2]Department of Materials Science and Engineering, Korea University)

[D9-ap] [F] Frontiers of Current Applied Physics I

2020. 11. 05 Thursday 14:00~15:12

Room: 09

좌장 : 홍영준 세종대학교

Chair : HONG Young Joon (Sejong University)

D9.01 [14:00 - 14:24]

Artificial synapse based on magnetic skyrmions for neuromorphic computing / SONG Kyung Mee[*1,2], JEONG JAE-SEUNG[3], ZHANG XICHAO[5], XIA JING[5], PARK TAE-EON[1], FINIZIO SIMONE[6], JU HYUNGSU[3], WOO SEONGHOON[8] ([1]Center for Spintronics, KIST, [2]Inorganic material Lab, Samsung Advanced Institute of Technology, [3]Center for Opto-Electronic Materials and Devices, KIST, [4]Fert Beijing Institute, Beihang University, [5]School of Science and Engineering, The Chinese University of Hong Kong, [6]Swiss Light Source, Paul

Scherrer Institut, [7]Department of Materials Science and Engineering, Yonsei University, [8]T.J. Watson Research Center, IBM)

D9.02 [14:24 - 14:48]
Nanoionics: ionic space-charge effect in lead halide perovskites / KIM Gee Yeong[*1,2], SENOCRATE Alessandro[2], MOIA Davide[2], MAIER Joachim[2] ([1]KIST, [2]Physical Chemistry of Solids, Max Planck Institute for Solid State Research)

D9.03 [14:48 - 15:12]
Tailoring optoelectronic properties of two-dimensional materials based heterostructures / OH Hye Min[*1] ([1]Department of Nanotechnology & Adavnced materials Engineering, Sejong University)

[D10-ap] [F] Magnetic 2D materials
2020. 11. 05 Thursday 14:00~15:36
Room: 10
좌장 : 이재웅 아주대학교
Chair : LEE Jae-Ung (Ajou University)

D10.01 [14:00 - 14:24]
Optical spectroscopy of magnetic ordering in 2-dimensional materials / CHEONG Hyeonsik[*1] ([1]Department of Physics, Sogang University)

D10.02 [14:24 - 14:48]
Anomalous Hall measurement of 2D ferromagnet-based heterostructures / LEE Changgu[*1], LEE Jinhwan[1], SRIVASTAVA Pawan[1], HASSAN Yasir[2], TAN Cheng[3], WANG Lan[3] ([1]School of Mechanical Engineering, Sungkyunkwan University, [2]SKKU Advanced Institute of Nanotechnology, Sungkyunkwan University, [3]Department of Physics, Royal Melbourne Institute of Technology, Australia)

D10.03 [14:48 - 15:12]
Tunable magnetic and topological properties of iron-based van der Waals magnets / KIM Jun Sung[*1] ([1]Department of Physics, POSTECH)

D10.04 [15:12 - 15:36]
Two-dimensional magnetism in atomically thin chromium trihalides / KIM Hyun Ho[*1] ([1]School of Materials Science and Engineering, Kumoh National Institute of Technology)

[D11-ap] [F] Nano/bio/medical organic electronic device

2020. 11. 05 Thursday 14:00~15:36

Room: 11

좌장 : 이탁희 서울대학교

Chair : LEE Takhee (Seoul National University)

D11.01 [14:00 - 14:24]

Organic Electronics for Wearable Healthcare / LEE Hyeonwoo[1], KIM Taehyun[1], YOO Seunghyup*[1] ([1]School of Electrical Engineering, KAIST)

D11.02 [14:24 - 14:48]

Skin-Inspired Artificial Ion Electronic Skin / JEONG Unyong*[1] ([1]Department of Materials Science and Engineering, POSTECH)

D11.03 [14:48 - 15:12]

Nanoscopically Engineered Organic Semiconducting Materials for Healthcare Sensors / OH Joon Hak*[1] ([1]School of Chemical and Biological Engineering, Seoul National University)

D11.04 [15:12 - 15:36]

A bioinspired ion channel for optoelectronic deformable sensors / KIM Joo Sung[1], AMOLI Vipin[1], CHUNG Yoon Sun[1], KIM Yunah[1], CHOI Hanbin[1], KWEON Hyukmin[1], KIM Do Hwan*[1] ([1]Department of Chemical Engineering, Hanyang University)

[D12-st] Complex Systems II

2020. 11. 05 Thursday 14:00~15:36

Room: 12

좌장 : 손승우 한양대학교

Chair : SON Seung-Woo (Hanyang University)

D12.01 [14:00 - 14:24]

Emulating relatedness network using the structural information of the citation / YUN Jin Hyuk*[1], AHN Sejung[2], LEE June Young[2] ([1]Department of Smart Systems Software, Soongsil University, [2]Future Technology Analysis Center, KISTI)

D12.02 [14:24 - 14:36]

Win-Stay-Lose-Shift as a self-confirming equilibrium in the iterated prisoner's dilemma / KIM Minjae[1], CHOI Jung-Kyoo[2], BAEK Seung Ki*[1] ([1]Department of Physics, Pukyong National University, [2]School of Economics and Trade, Kyungpook National University)

D12.03 [14:36 - 14:48]

The effect of media on opinion formation model / LEE Woosub*[1], YANG Seong-Gyu[1], KIM Beom Jun[1] ([1]Sungkyunkwan University)

D12.04 [14:48 - 15:00]
Homological percolation transitions in evolving coauthorship relations / LEE Yongsun[1], LEE Jongshin[1], OH Soo Min[1], LEE Deokjae[1], KAHNG Byungnam*[1] ([1]Department of Physics and Astronomy, Seoul National University)

D12.05 [15:00 - 15:12]
Quantifying and Predicting Synergy in Scientific Collaboration / SON Gangmin[1], YUN Jinhyuk[2], JEONG Hawoong*[1,3] ([1]Physics Department, KAIST, [2]Department of Smart Systems Software, Soongsil University, [3]Center for Complex Systems, KAIST)

D12.06 [15:12 - 15:24]
A Set of Central Words in Korean Language / LEE Hae Seong*[1], KIM Beom Jun[1] ([1]Department of Physics, Sungkyunkwan University)

D12.07 [15:24 - 15:36]
Machine learning approaches for the nonlinear dynamics / SONG Je Ung[1], CHOI Kwangjong[1], KAHNG Byungnam*[1] ([1]Department of Physics and Astronomy, Seoul National University)

[D13] No session

[D14-pl] [F] Plasma-based Advanced Accelerators and Radiation Sources
2020. 11. 05 Thursday 14:00~15:36
Room: 14
좌장 : **석희용** 광주과학기술원
Chair : SUK Hyyong (GIST)

D14.01 [14:00 - 14:24]
Overview of beam-driven wakefield accelerators / CHUNG Moses*[1] ([1]Department of Physics, UNIST)

D14.02 [14:24 - 14:48]
Generation of non-thermal energetic ion beams from a layered target irradiated by an ultraintense laser pulse / LEE Kitae*[1], KIM Ha-Na[1], KUMAR Manoj[1], RYU Woo-Je[1,2], CHOI Il Woo[3,4], LEE Seong Geun[3,5], NAM Chang Hee[3,5] ([1]Research Center for Ultrafast Science, KAERI, [2]Department of Physics, Hannam University, [3]Center for Relativistic Laser Science, Institute for Basic Science, [4]Advanced Photonics Research Institute, GIST, [5]Department of Physics and Photon Science, GIST)

D14.03 [14:48 - 15:12]
Two laser pulses-based plasma acceleration for high temporal resolution UED researches / KIM Minseok*1, CHO Myung Hoon2, NAM Inhyuk2, JANG Dogeun1, LEE Sihyeon3 (1XFEL Beamline Division, Pohang Accelerator Laboratory, 2XFEL Accelerator Division, Pohang Accelerator Laboratory, 3Department of Physics and Photon Science, GIST)

D14.04 [15:12 - 15:36]
레이저-플라즈마를 이용한 초고속-광대 THz 광원 개발 / JANG Dogeun*1 (1XFEL beamline, Pohang Accelerator Laboratory)

[D15-op] [F] Quantum computing & simulation I
2020. 11. 05 Thursday 14:00~15:36
Room: 15
좌장 : **신희득** 포항공과대학교
Chair : SHIN Heedeuk (POSTECH)

D15.01 [14:00 - 14:24]
Adiabatic quantum computation with trapped ions / KIM Kihwan*1 (1Center for Quantum Information, Institute for Interdisciplinary Information Sciences, Tsinghua University, China)

D15.02 [14:24 - 14:48]
Trapped ions coupled to optical cavities / LEE Moonjoo*1 (1Department of Electrical Engineering, POSTECH)

D15.03 [14:48 - 15:12]
Semiconductor spin-photon interfaces for quantum network research / LEE Sang Yun*1 (1GIST)

D15.04 [15:12 - 15:36]
Nanophotonics for Efficient Quantum Interfaces / KIM Myung Ki*1, LEE Jungmin1, KIM Moohyuk1, YU Aran1, PARK Nu-Ri1 (1Korea University)

[D16-at] [F] Atomic Sensors I
2020. 11. 05 Thursday 14:00~15:48
Room: 16
좌장 : **허명선** 한국표준과학연구원
Chair : HEO Myoung-Sun (KRISS)

D16.01 [14:00 - 14:36]
리드버그 원자를 이용한 고감도 광대역 전기장 계측 연구 / MOON Han Seb*1 (1Pusan National University)

D16.02 [14:36 - 15:12]
Toward high precise, compact, low power gyroscopes: Atom spin gyroscopes / LEE Sangkyung*[1], YIM Sin Hyuk[1], LEE Deok Young[1], SHIM Kyumin[1] ([1]Agency for Defense Development)

D16.03 [15:12 - 15:48]
초정밀 이동형 원자중력계 개발 / LEE Sang Bum*[1], KWON Taeg Yong[1], PARK Sang Eon[1], HEO Moung Sun[1], HONG Hyun Gue[1], SEO Sangwon[1], LEE Jae Hoon[1] ([1]Center for Time and Frequency, KRISS)

[D17-se] [F] Organic – inorganic photovoltaic materials and devices
2020. 11. 05 Thursday 14:00~15:36
Room: 17
좌장 : 서정화 동아대학교
Chair : SEO Jung Hwa (Dong-A University)

D17.01 [14:00 - 14:24]
High PCE perovskite solar cells with active layer modulation / KIM Gi-Hwan*[1] ([1]School of Materials Science and Engineering , Gyeongsang National University)

D17.02 [14:24 - 14:48]
Cathode interlayers for favorable energy level alignment in inverted organic solar cells / LEE Hyun Bok*[1] ([1]Department of Physics, Kangwon National University)

D17.03 [14:48 - 15:12]
Facile conductivity enhancement of PEDOT:PSS with high work-function for transparent electrode application / CHOI Jea-Young*[1] ([1]Department of Materials Science and Engineering, Dong-A University)

D17.04 [15:12 - 15:36]
친환경 컬러 Cu(In,Ga)Se_2 박막 태양전지 기술 / 정용덕*[1,2], 조대형[1], 이우정[1], 김우주[1,2], 유종훈[1,3], 강성준[3] ([1]한국전자통신연구원 신소재연구실, [2]과학기술연합대학원대학교 차세대소자공학과, [3]경희대학교 정보전자신소재공학과)

[D18-se] Devices - energy harvesting & storage
2020. 11. 05 Thursday 14:00~15:24
Room: 18
좌장 : 장문규 한림대학교
Chair : JANG Moon Gyu (Hallym University)

D18.01 [14:00 - 14:12]
기계적 에너지 수확을위한 마이크로 아키텍처 마찰전기 필름으로 향상된 전기 출력 특성 /

GRAHAM Sontyana Adonijah[2], HARISHKUMARREDDY Patnam[2], PUNNARAO Manchi[2], YU Jae Su*[1,2] ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Electronics, Kyung Hee University)

D18.02 [14:12 - 14:24]
슈퍼커패시터 응용을 위한 향상된 전기화학적 성능을 갖춘 MnV_2O_6 미세 구조의 제작 / KRISHNA B. N. Vamsi[2], YU Jae Su*[1,2] ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Engineering, Kyung Hee University)

D18.03 [14:24 - 14:36]
에너지 저장 장치용 바나듐 통합 금속산화물의 합성 및 특성 / S. Chandra Sekhar[1], BHIMANABOINA Ramulu[1], SHAIK Junied Arbaz[1], YU Jae Su*[1,2] ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Engineering, Kyung Hee University)

D18.04 [14:36 - 14:48]
Core-shell MnO_2 deposited one-dimensional porous silicon nanowire electrodes for high performance supercapacitors / BAGAL Indrajit V.[1], RYU Sang Wan*[1] ([1]Department of Physics, Chonnam National University)

D18.05 [14:48 - 15:00]
GaN/p-GaN core-shell Nanowire-Based Self-powered Piezoelectric-Pressure Sensor / WASEEM Aadil[1], RYU Sang Wan*[1] ([1]Department of Physics, Chonnam National University)

D18.06 [15:00 - 15:12]
리튬 이온 배터리용 NiS_2-CoS_2@MoS_2 음극재의 합성 및 특성 / D. Narsimulu[1], ASHOK Kumar Kakarla[2], ANKI Reddy Mule[2], YU Jae Su*[1,2] ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Engineering, Kyung Hee University)

D18.07 [15:12 - 15:24]
고성능 슈퍼커패시터를 위한 삼금속 층상이중수산화물의 합성 / RAMULU Bhimanaboina[2], S. Chandra Sekhar[2], SHAIK Junied Arbaz[2], YU Jae Su*[2,1] ([1]Department of Electronics and Information Convergence Engineering, Kyung Hee University, [2]Department of Electronic Engineering, Kyung Hee University)

[D19-bp] Biological physics I (invited)

2020. 11. 05 Thursday 14:00~15:36

Room: 19

좌장 : 이자일 울산과학기술원

Chair : LEE Ja Yil (UNIST)

D19.01 [14:00 - 14:24]

Role of metal ions in enzyme catalysis / KIM Chae Un*1 ([1]Department of Physics, UNIST)

D19.02 [14:24 - 14:48]

Development of a hyperspectral endoscopy system for imaging the gastrointestinal tract in clinics / YOON Jonghee*1 ([1]Department of Physics, Ajou University)

D19.03 [14:48 - 15:12]

High-speed tracking of synaptic protein interactions / SHON Min Ju*1 ([1]Department of Physics, POSTECH)

D19.04 [15:12 - 15:36]

프라이머-템플릿에서 DNA 녹는 특이점은 시공간적으로 패밀리-B DNA 중합 효소의 교정 활동을 지휘합니다. / 보티민 호아[1], 존혁진[1], 유정민[1], 이광록*1 ([1]life sciences, GIST)

[D20-or] 출연연특별세션: 신규 방사광가속기 구축 현황 및 미래전망 (Status and future outlook of new accelerator)

2020. 11. 05 Thursday 14:00~15:45

Room: 20

좌장 : 임종선 한국화학연구원

Chair : LIM Jong Sun (KRICT)

[14:00 - 14:05]

출연연활성화특별위원회 위원장 인사말 / 이주한 (한국기초과학지원연구원)

D20.01 [14:05 - 14:30]

미래 방사광가속기의 이용 기술과 사이언스 / 김현정*1 ([1]서강대)

D20.02 [14:30 - 14:55]

신규방사광가속기에서의 분광실험 발전 방향 / 고경태*1 ([1]한국기초과학지원연구원)

D20.03 [14:55 - 15:20]

Design of Korean 4GSR and its beam characteristic / 이재유*1 ([1]포항가속기연구소)

D20.04 [15:20 - 15:45]

KAERI의 다목적 방사광가속기 구축 인력 리뷰 / 김유종*1 ([1]한국원자력연구원)

Session E

2020 November 5(Thu) 16:10~17:58

[E1-pa] [F] Cornerstone for future collider projects III

2020. 11. 05 Thursday 16:10~18:10

Room: 01

좌장 : **유휘동** 연세대학교

Chair : YOO Hwi-Dong (Yonsei University)

E1.01 [16:10 - 16:58]

Overview of EIC and Calorimeter / GOTO Yuji*1 ([1]Experimental Group, RIKEN)

E1.02 [16:58 - 17:22]

Opportunity in EIC physics for the control case study of relativistic heavy ion experiments / KIM Yongsun*1 ([1]Department of Physics, Sejong University)

E1.03 [17:22 - 17:46]

Development of silicon trackers for EIC / LIM Sanghoon*1 ([1]Department of Physics, Pusan National University)

E1.04 [17:46 - 18:10]

Nucleon tomography with GPDs at the EIC / JO Hyon-Suk*1 ([1]Department of Physics, Kyungpook National University)

[E2-pa] Field and String theory

2020. 11. 05 Thursday 16:10~18:10

Room: 02

좌장 : **송재원** 한국과학기술원

Chair : SONG Jaewon (KAIST)

E2.01 [16:10 - 16:22]

Emergent Fermi liquid as topological insulator in holographic spacetime. / OH Eunseok[1], SIN Sang Jin*1 ([1]physics department, Hanyang University)

E2.02 [16:22 - 16:34]

Magnetsm from rotating black brane / SEO Yunseok*1, KIM Kyun Kiu[2], KIM Keun-Young[3], SIN Sang-Jin[4] ([1]GIST College, GIST, [2]Department of Physics and Astronomy, Sejong University, [3]Department of Physics and Photon Science, GIST, [4]Department of Physics, Hanyang University)

E2.03 [16:34 - 16:46]

Determination of Dynamical exponents of Graphene at quantum critical point by holography / SIN Sang Jin[*1], SONG Geunho[1], SEO Yunseok[2] ([1]physics department, Hanyang University, [2]School of Physics and Chemistry, GIST)

E2.04 [16:46 - 16:58]

Junctions of mass-deformed nonlinear sigma models on SO(2N)/U(N) and Sp(N)/U(N) / KIM Taegyu[1], SHIN Sunyoung[*2] ([1]Department of Physics, Sungkyunkwan University, [2]Institute of Basic Science, Sungkyunkwan University)

E2.05 [16:58 - 17:10]

Dyonic Generalisation of Effective One-Body Formalism via Scattering Amplitudes / SHIM Myungbo[*1], KIM Jung-Wook[2] ([1]Department of Physics, Kyung Hee University, [2]Centre for Research in String Theory, School of Physics and Astronomy, Queen Mary University of London)

E2.06 [17:10 - 17:22]

Structure Constants of a Single Trace Operator and Determinant Operators from Hexagon / KIM Keun Young[*1], KIM Minkyoo[2], LEE Kyung-Sun[1] ([1]Physics, GIST, 2Physics, University of the Witwatersrand)

E2.07 [17:22 - 17:34]

Large N gauge theories with a dense spectrum and the Weak Gravity Conjecutre / AGARWAL Prarit[2], LEE Ki-Hong[3], SONG Jaewon[*1] ([1]Physics, KAIST, [2]School of Physics and Astronomy, Queen Mary University of London, [3]String Theory and Quantum Geometry JRG group, APCTP)

E2.08 [17:34 - 17:46]

Quantum Simulation for SYK Models / YOON Junggi[*1], KANG Byungmin[1], TEZUKA Masaki[2], SUZUKI Yuki[2] ([1]Department of Physics, KIAS, [2]Department of Physics, Kyoto University)

E2.09 [17:46 - 17:58]

Holography of T2 deformation in quantum mechnics / KIM Kyung Kiu[*1], BAEK Jong Hyun[1] ([1]Department of Physics and Astronomy, Sejong University)

E2.10 [17:58 - 18:10]

Pole-skipping of scalar and vector fields in hyperbolic space: conformal blocks and holography / KIM Keun Young[*1], AHN Yongjun[1], JAHNKE Viktor[1], JEONG Hyun-Sik[1], LEE Kyung-Sun[1], NISHIDA Mitsuhiro[1] ([1]Physics, GIST)

[E3-nu] Nuclear Reaction & Structure

2020. 11. 05 Thursday 16:10~17:22

Room: 03

좌장 : 천명기 숭실대학교

Chair : CHEOUN Myung Ki (Soongsil University)

E3.01 [16:10 - 16:22]

Nuclear transmutation of 93Zr using the low-energy beamline / HWANG Jongwon*[1], DOZONO Masanori[2], IMAI Nobuaki[2], MICHIMASA Shin'ichiro[2], SHIMOURA Susumu[2] ([1]Center for Exotic Nuclear Studies, IBS, [2]Center for Nuclear Study, The University of Tokyo)

E3.02 [16:22 - 16:34]

Neutrino-Deuteron Reactions at Solar Neutrino Energies in Pionless Effective Field Theory with Dibaryon Fields / ANDO Shung-Ichi*[1], SONG Young-Ho[2], HYUN Chang Ho[3] ([1]Department of Information Display, Sun Moon University, [2]RISP, IBS, [3]Department of Physics Education, Daegu University)

E3.03 [16:34 - 16:46]

Development of new Graphic User Interface program for nuclear reaction / SONG Young-Ho*[1], SHIN Ik Jae[1] ([1]Rare Isotope Science Project, Institute for Basic Science)

E3.04 [16:46 - 16:58]

Nuclear structure of neutron-rich Te isotopes beyond the double magic nucleus 132Sn / MOON Byul*[1] ([1]Center for Exotic Nuclear Studies, IBS)

E3.05 [16:58 - 17:10]

Tensor force in nuclei / HA Eun Ja*[1] ([1]Soongsil University)

E3.06 [17:10 - 17:22]

Structure of ^{100}Sn – present knowledge and research methods / PARK Joochun*[1] ([1]Center for Exotic Nuclear Studies, IBS)

[E4-as] Astrophysics Experiments/Observations and Theories

2020. 11. 05 Thursday 16:10~17:22

Room: 04

좌장 : 조인용 서울과학기술대학교

Chair : CHO In Yong (Seoul National University of Science and Technology)

E4.01 [16:10 - 16:22]

Measurement of cosmic-ray proton spectrum with the ISS-CREAM experiment / CHOI Gwangho[1], TAKEISHI Ryuji[1], SEO Eunsuk[2], PARK IL Hung*[1] ([1]Physics, Sungkyunkwan University, [2]Physics, University of Maryland)

E4.02 [16:22 - 16:34]

Cosmic-ray Heavy Nuclei Spectra from the ISS-CREAM Experiment / KANG Sin-chul[1], KIM Hong Joo[*1], PARK Hwanbae[1], LEE Jik[1], JEONG Dongwoo[1], JEON Hyebin[1], PARK Jeongmin[2], HWANG Yongseok[3], HYUN Hyojung[4], LEE Moohyun[5], SEO Eunsuk[6] ([1]Department of Physics, Kyungpook National University, [2]Advanced Radiation Technology Institute, Korea Atomic Energy Research Institute, [3]Korea Multi-purpose Accelerator Complex, Korea Atomic Energy Research Institute, [4]4th generation synchrotron radiation accelerator institute, Pohang Accelerator Laboratory, [5]Center for Underground Physics, Institute for Basic Science, [6]Department of Physics, University of Maryland)

E4.03 [16:34 - 16:46]

카그라 MCMC 모수 추정 파이프라인을 이용한 블랙홀 쌍성의 물리량 추정 / JEON Chaeyeon[1], KIM Chunglee[*1], LEE Hyungwon[2], KIM Jeongcho[2], HIDEYUKI Tagoshi[3] ([1]Department of Physics, Ewha Womans University, [2]Department of Dron IoT Simulation, Inje University, [3]Institute for Cosmic Ray Research, University of Tokyo)

E4.04 [16:46 - 16:58]

Gravitational waves generated by a rotating traversable wormhole / KIM Sung Won[*1], LEE Seungkoog[2], PARK Meongwon[2], CHANG Sungpil[2], JANG Junhwa[2], YOU Jungmin[1] ([1]Science Education, Ewha Womans University, [2]Physics, Korea Science Academy)

E4.05 [16:58 - 17:10]

Observations of Gravitational Waves by Gauge-Invariant Measures of Light / PARK Chan[*1], KIM Dong-Hoon[2] ([1]Division of Basic Researches for Industrial Mathematics, NIMS, [2]Department of Physics and Astronomy, Seoul National University)

E4.06 [17:10 - 17:22]

Light in the presence of gravitational waves / KANG Gungwon[*1] ([1]Supercomputing Center, KISTI)

[E5-co] [F] Nano/Mesoscopic system, Graphene and Topological Materials

2020. 11. 05 Thursday 16:10~17:58

Room: 05

좌장 : 김준성 포항공과대학교

Chair : KIM Jun Sung (POSTECH)

E5.01 [16:10 - 16:46]

Two-dimensional chiral stacking orders in quasi-one-dimensional charge density waves / KIM Tae-Hwan[*1] ([1]Physics, POSTECH)

E5.02 [16:46 - 17:22]

Atomic and electronic reconstruction in the twisted bilayer graphene / YOO Hyobin[*1] ([1]Department of Physics, Sogang University)

E5.03 [17:22 - 17:58]

Control of electron–electron interaction in graphene by proximity screening / KIM Minsoo*[1] ([1]School of Physics and Astronomy, The University of Manchester)

[E6-co] [E] [F] High-pressure physics III

2020. 11. 05 Thursday 16:10~17:46

Room: 06

좌장 : 김봉재 군산대학교

Chair : KIM Bongjae (Kunsan National University)

E6.01 [16:10 - 16:34]

메가바 이상의 극한 환경에서의 산화물의 전자-결합구조의 실험적규명 / LEE Sung Keun*[1] ([1]School of Earth and Environ. Sci., Seoul National University)

E6.02 [16:34 - 16:58]

XFEL-Induced Synthesis of ε-Iron Nitride at High Pressures / LEE Yongjae*[1] ([1]Department of Earth System Science, Yonsei University)

E6.03 [16:58 - 17:22]

Structure and Transport Properties of Potassium Hydrides under High Temperature and Pressure of Hydrogen / KIM Jae Yong*[1], YAN Jiafeng[1], JUNG Kwanhui[1], PARK Changyong[2], PRAKAPENKA Vitali[3], PAKHOMOVA Anna[4], LIERMANN Hanns-Peter[4], STRUZHKIN Viktor[5] ([1]Department of Physics, Hanyang University, [2]HPCAT, Advanced Photons Source, Argonne National Laboratory, [3]Center for Advanced Radiation Sources, University of Chicago, [4]Photon Science, Deutsches Elektronen Synchrotron (DESY), [5]HPSTAR, Center for High Pressure Science and Technology Advanced Research)

E6.04 [17:22 - 17:46]

Enhanced activation energy at a possible hidden antiferromagnetic phase in FeSe under pressure / KIM Jihye[1], OK Jong Mok[2], CHOI Joonyoung[1], KIM Jun Sung[2], KANG Woun[3], JO Youn Jung*[1] ([1]Physics, Kyungpook National University, [2]Physics, POSTECH, [3]physics, Ewha Womans University)

[E7-co] [F] Synchrotron x-ray studies for advanced electronic materials and quantum mechanical properties I

2020. 11. 05 Thursday 16:10~17:58

Room: 07

좌장 : 이동렬 숭실대학교

Chair : LEE Dong Ryeol (Soongsil University)

E7.01 [16:10 - 16:34]

Observation on selective orbtials of 5d IrO_2 epitaxial thin films using resonant in-

elastic x-ray sacttering / CHANG Seo Hyoung*1, LEE Kyeong Jun[1], HEO Jin Eun[1] ([1]Department of Physics, Chung-ang University)

E7.02 [16:34 - 16:46]
Polarized x-ray resonant scattering from the chiral structures of the electric quadrupole moments / LEE Dong Ryeol*1, KIM Kook Tae[1], KEE Jung Yun[1], PARK Se Young[1] ([1]Department of Physics, Soongsil University)

E7.03 [16:46 - 17:10]
Magnetic skyrmions in heterostructures / CHOI Jun Woo*1 ([1]Center for Spintronics, KIST)

E7.04 [17:10 - 17:22]
Ferromagnetism and XMCD studies in 2D layered chrome telluride thin films / LEE In Hak[1], CHOI Byoung Ki[1], KIM Hyuk Jin[1], KIM Min Jae[1], JEONG Hu Young[2], KIM Younghak[3], PARK Seung Young[4], JO Younghun[4], LEE Chanki[5], CHOI Junwoo[5], LEE Suyoun[6], CHANG Young Jun*1 ([1]Department of Physics, University of Seoul, [2]Central Research Facilities (UCRF), UNIST, [3]Pohang Accelerator Laboratory, POSTECH, [4]Division of Materials Science, KBSI, [5]Center for Spintronics, KIST, [6]Center for Electronic Materials, KIST)

E7.05 [17:22 - 17:46]
Sub-nanosecond phase transition dynamics of iron using laser-pump and XFEL-probe / LEE Yongjae*1 ([1]Department of Earth System Science, Yonsei University)

E7.06 [17:46 - 17:58]
Time-resolved x-ray diffraction study of acoustic and thermal transports across metal-semiconductor interfaces / LEE Dong Ryeol*1, KEE Jung Yun[1], JO Won Hyuk[1,2,3], KIM Kook Tae[1], LANDAHL Eric C.[4], DICHIARA Anthony D.[5], WALKO Donald A.[5], LEE Soo Hyeyong[2] ([1]Department of Physics, Soongsil University, [2]소재융합측정연구소, KRISS, [3]Department of Photon Science, Deutches Electron-Synchrotron(DESY), [4]Department of Physics, DePaul University, [5]Department of Time-Resolved Research (XSD-TRR), Advanced Photon Source)

[E8-co] Strongly Correlated II
2020. 11. 05 Thursday 16:10~17:34
Room: 08
좌장 : **황정식** 성균관대학교
Chair : HWANG Jungseek (Sungkyunkwan University)

E8.01 [16:10 - 16:22]
Propagation Control of Octahedral Distortion in $SrRuO_3$ via Atomic-scale Heterostructuring / JEONG Seung Gyo[1], HAN Gyeongtak[2,3], SONG Sehwan[4], MIN Taewon[4], MOHAMED Ahmed Yousef[4], PARK Sungkyun[5], LEE Jaekwang[4], JEONG Hu Young[6], KIM

Young-Min[2,3], CHO Deok-Yong[5], CHOI Woo Seok *[1] ([1]Physics, Sungkyunkwan University, [2]Center for Integrated Nanostructure Physics, Institute for Basic Science, [3]Energy Sciences, Sungkyunkwan University, [4]Physics, Pusan National University, [5]IPIT and Department of Physics, Jeonbuk National University, [6]UNIST Central Research Facilities and School of Materials Science and Engineering, UNIST)

E8.02 [16:22 - 16:34]

Light control of octahedral rotation in perovskite oxides / KYUNG Wonshik[1], JANG Hoyoung[2], CHUN SaeHwan[2], KWON Junyoung[1], KIM Minsoo[1], SOHN Byungmin[1], KIM Changyoung*[1] ([1]Department of Physics and Astronomy, Seoul National University, [2]X-FEL, Pohang Accelerator Laboratory)

E8.03 [16:34 - 16:46]

$LaMnO_3$의 중적외선 전도도 피크들의 기원 / MYUNG-WHUN Kim*[1], MUNKHBAATAR Purevdorj[1] ([1]Jeonbuk National University)

E8.04 [16:46 - 16:58]

The strong correlation between electric and magnetic properties in the cubic pyrite Co-doped NiS_2 system / KIM Changyoung*[1,2], KIM Mi Kyung[1,2], KWON Junyoung[1,2] ([1]Department of Physics and Astronomy, Seoul National University, [2]CCES, IBS)

E8.05 [16:58 - 17:10]

Effect of grain size on the electrical properties of SmB_6 thin films / LEE Seunghun*[1,2,3], ZHANG Xiaohang[2,3], EO Yun Suk[3], PARK Jihun[2], BAE Jong-Seong[4], PAGLIONE Johnpierre[3], GREENE Richard L[3], TAKEUCHI Ichiro[2,3] ([1]Department of Physics, Pukyong National University, [2]Department of Materials Science and Engineering, University of Maryland, [3]Maryland Quantum Materials Center, Department of Physics, University of Maryland, [4]Busan Center, Korea Basic Science Institute)

E8.06 [17:10 - 17:22]

Defect engineering of magnetic phase of $EuTiO_3$ epitaxial thin films / SHIN Dongwon[1], KIM Inseo[2], SONG Sehwan[3], PARK Sungkyun[3], CHOI Minseok[2], CHOI Woo Seok*[1] ([1]Physics, Sungkyunkwan University, [2]Department of Physics, Inha University, [3]Department of Physics, Pusan University)

E8.07 [17:22 - 17:34]

Infrared observation of the low-energy interband transition in ultraclean $SrVO_3$ film / AHN Gihyeon[1], ZINGL M.[2], NOH S. J.[1], BRAHLEK M.[3], ROTH Joseph D.[3], ENGEL-HERBERT Roman[3,4,5], MILLIS A. J.[2,6], MOON Soonjae*[1] ([1]Department of Physics, Hanyang University, [2]Center for Computational Quantum Physics, Flatiron Institute, [3]Department of Materials Science and Engineering, Pennsylvania State University, [4]Department of Physics, Pennsylvania State University, [5]Department of Chemistry, Pennsylvania State University, [6]Department of Physics, Columbia University)

[E9-ap] [F] Frontiers of Current Applied Physics II

2020. 11. 05 Thursday 16:10~17:22

Room: 09

좌장 : 양상모 서강대학교

Chair : YANG Sang Mo (Sogang University)

E9.01 [16:10 - 16:34]

Bi-doping induced visible-light optical absorption of wide bandgap semiconductor In_2O_3 / PARK Sungkyun*1, KIM JIwoong[1], PARK Hongjun[1], SONG Sehwan[1], CHOI Yesul[1], KIM Hyegyeong[1], BAE JongSeong[2], LE Chinh Tam[3], KIM Yong Soo[3], YANG Mihyun[4], IHM Kyuwook[4], LEE Kug-Seung[4] ([1]Pusan National University, [2]Busan Center, Korea Basic Science Institute, [3]Department of Physics, University of Ulsan, [4]Pohang Accelerator Laboratory, POSTECH)

E9.02 [16:34 - 16:58]

Local electrical characterizations of nanomaterials and nanodevices / PARK Ji-Yong*1 ([1]Ajou University)

E9.03 [16:58 - 17:22]

Controlling spin structure of antiferromagnet for the switching of exchange bias effect / HONG Jung-Il*1, KIM Hyun-Joong[1] ([1]Emerging Materials Science, DGIST)

[E10-ap] [F] Chiral Magnetism and Topological Properties

2020. 11. 05 Thursday 16:10~17:46

Room: 10

좌장 : 이경진 한국과학기술원

Chair : LEE Kyung-Jin (KAIST)

E10.01 [16:10 - 16:34]

Antisymmetric interlayer exchange coupling in magnetic multilayers / JUNG Myung Hwa*1 ([1]Sogang University)

E10.02 [16:34 - 16:58]

Dynamics of topological defects and their applications / KIM Kab-Jin*1 ([1]Department of Physics, KAIST)

E10.03 [16:58 - 17:22]

Magnetic skyrmions in van der Waals ferromagnet-based heterostructures / PARK Tae-Eon*1, PENG Licong[2], LIANG Jingua[3], SONG Kyung Mee[1], KIM Sung Jong[1], WEIGAND Markus[4], ZHANG Xichao[5], YANG Hongxin[3], YU Xiuzhen[2], WOO Seonghoon[6] ([1]Center for Spintronics, KIST, [2]Center for Emergent Matter Science, RIKEN, [3]Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, [4]HelmholtzCenter Berlin, Albert

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EinsteinStraβe, [5]School of Science and Engineering, The Chinese University of Hong Kong, [6]T.J. Watson Research Center, IBM)

E10.04 [17:22 - 17:46]

Role of in-plane magnetic field in the generation of magnetic skyrmion in Fe/Gd multilayer / HAN Hee-Sung[1], MONTOYA Sergio A.[2], CHAO Weilun[3], JEONG Suyeong[1], FULLERTON Eric E.[4,5], HONG Jung-Il[6], JE Soong-Geun[7], IM Mi-Young[3], LEE Ki-Suk*[1] ([1]School of Materials Science and Engineering, UNIST, [2]Naval Information Warfare Systems Command - Pacific, San Diego, [3]Center for X-ray Optics, Lawrence Berkeley National Laboratory, [4]Center for Memory and Recording Research, University of California - San Diego, [5]Department of Electrical and Computer Engineering, University of California - San Diego, [6]Department of Emerging Materials Science, DGIST, [7]Department of Physics, Chonnam National University)

[E11-ap] Energy and bio materials

2020. 11. 05 Thursday 16:10~17:34

Room: 11

좌장 : 임은주 단국대학교

Chair : LIM EunJu (Dankook University)

E11.01 [16:10 - 16:22]

Surface Photovoltage Imaging of Hybrid Perovskite Crystals / JUNG Hye Ri[1], CHO Yunae[1], JO William*[1] ([1]Department of Physics, Ewha Womans University)

E11.02 [16:22 - 16:34]

Impact of Rashba and Polaronic Effects on the Luminescence Properties of $APbBr_3$ (A=Cs, CH_3NH_3) Perovskite Single Crystals / RYU Hongsun[1], MCCALL Kyle[2], PARK Dae Young[3], JEONG Mun Seok[3], KANATZIDIS Mercouri[2], JANG Joon Ik*[1] ([1]Physics, Sogang University, [2]Chemistry, Northwestern University, [3]Energy science, Sungkyunkwan University)

E11.03 [16:34 - 16:46]

Raman scattering study of structural properties of methylammonium lead chloride single crystals / PARK Joohee[1], KIM Yejin[1], BAE Soungmin[2], BARI Maryam[3], JUNG Hye Ri[1], JO William[1], KIM Yong-Hoon[2], YE Zuo-Guang[3], YOON Seokhyun*[1] ([1]Department of Physics, Ewha Womans University, [2]School of Electrical Engineering, KAIST, [3]Department of Chemistry and 4D LABS, Simon Fraser University)

E11.04 [16:46 - 16:58]

Large size and high quality metal halide perovskite single crystals by inverse temperature crystallization / CHO Yunae[1], JUNG Hye Ri[1], KIM Yeon Soo[1], KIM Yejin[1], YOON Seokhyun[1], LEE Yousil[2], CHEON Miyeon[2], JEONG Se-young[2], JO William*[1] ([1]Department of Physics, Ewha Womans University, [2]Department of Physics, Pusan National University)

E11.05 [16:58 - 17:10]
Nanogap for SERS analytical platform for the detection of explosives / ADHIKARI Samir*[1], AMPADU Emmanuel K[1], KIM Minjun[1], NOH Daegwon[1], OH Eunsoon[1], LEE Dong-han[1] ([1]department of physics, Chungnam National University)

E11.06 [17:10 - 17:22]
Gate-tunable interlayer charge transition in graphene/ MoS_2 heterostructures / CHOI Youn Gyu[1,2], TRAN Dao Minh[1,2], LEE Sanghyup[1,2], PARK Sehwan[1,2], KIM Jungho[1,2], KIM Ji-Hee*[1,2] ([1]Department of Energy Science, Sungkyunkwan University, [2]Center for Integrated Nanostructure Physics (CINAP), Institute for Basic Science (IBS))

E11.07 [17:22 - 17:34]
Advanced Manufacturing Process for Defect-Free Microneedle Arrays Based Transdermal Drug Delivery System by Employing Electrostatic and Capillary Actions in Combination with Freeze-drying / JEON Tae Hyun[1], HWANG Jae Seok[2], KANG Dae Joon*[1] ([1]Sungkyunkwan University, [2]Energy Science, Sungkyunkwan University)

[E12-st] Phase transition and critical phenomena
2020. 11. 05 Thursday 16:10~17:34
Room: 12
좌장 : 노재동 서울시립대학교
Chair : NOH Jae Dong (University of Seoul)

E12.01 [16:10 - 16:22]
Synchronization in leader-follower switching dynamics / KAHNG Byungnam*[1], PARK Jinha[1] ([1]Department of Physics and Astronomy, Seoul National University)

E12.02 [16:22 - 16:34]
Infinite-order phase transitions in growing scale-free simplicial complexes / OH Soo Min[1], LEE Yongsun[1], LEE Jongshin[1], KAHNG Byungnam*[1] ([1]Department of Physics and Astronomy, Seoul National University)

E12.03 [16:34 - 16:46]
Link overlap influence opinion dynamics on multiplex networks: spin model approach / KAHNG Byungnam*[1], KIM Cook[1] ([1]Department of Physics and Astronomy, Seoul National University)

E12.04 [16:46 - 16:58]
Hybrid percolation transition in a self-organized system / CHOI Hoyun[1], PARK Jinha[1], KAHNG Byungnam*[1] ([1]Department of Physics and Astronomy, Seoul National University)

E12.05 [16:58 - 17:10]

Accessing the quantum criticality of the transverse-field Ising chain via a neural-network quantum state / KIM Dongkyu[1], KIM Dong-Hee*[1] ([1]Department of Physics and Photon Science, GIST)

E12.06 [17:10 - 17:22]

Temperature-Dependent Performance of Erasure Machine in Detecting Interaction Structure of Spin Glasses / JUNG Min Jae*[1], KIM Beom Jun[1] ([1]Department of Physics, Sungkyunkwan University)

E12.07 [17:22 - 17:34]

Crossover from a quantum to a classical DP transition in dissipative quantum systems / JO Minjae[1], CHOI Kwangjong[1], KAHNG Byungnam*[1] ([1]Department of Physics and Astronomy, Seoul National University)

[E13] No session

[E14-pl] Nuclear Fusion and Basic Plasma Phenomena

2020. 11. 05 Thursday 16:10~17:10

Room: 14

좌장 : 이정표 한양대학교

Chair : LEE Jungpyo (Hanyang University)

E14.01 [16:10 - 16:22]

Nonlinear MHD Study on the Dual SPI in KSTAR / LEE S.J.[1], NA Yong Su*[1], HU D.[2], KIM S.K.[1], HOELZL M.[3], LEHNEN M.[4], NARDON E.[5], BECOULET M.[5], HUIJSMANS G.T.A.[5,6], KIM Jayhyun[7], JOREK Team[8] ([1]Nuclear Engineering, Seoul National University, [2]School of Physics, Beihang University, China, [3]Max Planck Institute for Plasma Physics, Germany, [4]ITER Organization, France, [5]CEA, IRFM, France, [6]Eindhoven University of Technology, The Netherlands, [7]National Fusion Research Institute, [8]URL:, https://jorek.eu)

E14.02 [16:22 - 16:34]

A gyrofluid model for the plasma parallel dynamics with poloidally inhomogeneous sources / LEE Younghoon*[1], KWON Jae-Min[2], JHANG Hogun[2], KIM S.S.[2], LEE Jungpyo[1] ([1]Department of nuclear engineering, Hanyang University, [2]Department of physics, NFRI)

E14.03 [16:34 - 16:46]

Effects of SAS-like divertor structure on detachment phenomenon in KSTAR. / RA Ookjoo[1], KWON Kyu Been[1], HUR Min Sup*[1] ([1]Physics, UNIST)

E14.04 [16:46 - 16:58]
태양 플라즈마에서 자기장의 증폭을 설명하는 alpha, beta 효과의 직관적 파악과 해석적 유도 / CHEOUN Myung Ki*[1], PARK Kiwan[1] ([1]Department of Physics, Soongsil University)

E14.05 [16:58 - 17:10]
Study of plasma dispersion relation and wave stability with fluid closure / LEE MIN UK[1], JI Jeong-Young[2], YUN GUNSU*[1,3] ([1]Division of Advanced Nuclear Engineering, POSTECH, [2]Department of Physics, Utah State University, [3]Department of Physics, POSTECH)

[E15-op] [F] Quantum computing & simulation II
2020. 11. 05 Thursday 16:10~17:46
Room: 15
좌장 : **신희득** 포항공과대학교
Chair : SHIN Heedeuk (POSTECH)

E15.01 [16:10 - 16:34]
First-principles theory of quantum defects in 2D materials / SEO Hosung*[1] ([1]Physics, Ajou University)

E15.02 [16:34 - 16:58]
Utilizing electronic spin interactions for scalable quantum network / 이정현*[1] ([1]한국과학기술연구원)

E15.03 [16:58 - 17:22]
Defects in crystals with efficient optical interfaces / KIM Je Hyung*[1], LEE Jin Hee[1], MOON Jong Sung[1], LEE Sangyun[2,3], LEE Junghyun[2] ([1]Department of Physics, UNIST, [2]Center for Quantum Information, KIST, [3]Department of Physics and photon science, GIST)

E15.04 [17:22 - 17:46]
Effective single-photon detection for quantum nanophotonics / 이욱재*[1], 김갑중[2], 조성완[2], 주정진[2], 이정민[3], 강원남[3] ([1]Department of Physics, Kongju National University, [2]Electronics and Telecommunications Research Institute, [3]Department of Physics, Sungkyunkwan University)

[E16-at] [F] Atomic Sensors II
2020. 11. 05 Thursday 16:10~17:58
Room: 16
좌장 : **허명선** 한국표준과학연구원
Chair : HEO Myoung-Sun (KRISS)

E16.01 [16:10 - 16:46]
Chip-Scale Atomic Clock / KWON Taeg Yong*[1], 홍현규[1], 박상언[1], 이상범[1], 허명선[1], 김희연[2],

박종철[2], 윤상준[3], 전태현[3], 김태균[3] ([1]Division of Physical Metrology, KRISS, [2]Department of Convergence Sensor, National NanoFab Center, [3]넵코어스 주식회사 기술연구소)

E16.02 [16:46 - 17:22]
Nitrogen-vacancy centers in diamond for magnetometry / OH Sangwon*1 ([1]Ultra-low magnetic field team, KRISS)

E16.03 [17:22 - 17:58]
Atomic sensor based on diamond NV centers / LEE Donghun*1 ([1]Physics, Korea University)

[E17-se] [F] Future Optoelectronic Materials and Devices II
2020. 11. 05 Thursday 16:10~17:22
Room: 17
좌장 : 조창희 대구경북과학기술원
Chair : CHO Chang-Hee (DGIST)

E17.01 [16:10 - 16:34]
Understanding tunable photoresponsivity of 2D multilayer phototransistors: Interplay between thickness and carrier mobility / JOO Min-Kyu*1 ([1]Department of Applied Physics, Sookmyung Women's University)

E17.02 [16:34 - 16:58]
Graphene-mediated non-covalent epitaxy of semiconductor micro-light-emitting diodes for flexible optoelectronics applications / HONG Young Joon*1,2 ([1]Nanotechnology and Advanced Materials Engineering, Sejong University, [2]GRI-TPC International Research Center, Sejong University)

E17.03 [16:58 - 17:22]
Epitaxial growth of single-crystal transition metal dichalcogenide monolayers via atomic step surfaces / KIM Ki Kang*1,2 ([1]Department of Energy Science, Sungkyunkwan University, [2]Center for Integrated Nanostructure Physics (CINAP), Institute for Basic Science (IBS))

[E18-se] Low dimensional nano-materials
2020. 11. 05 Thursday 16:10~17:10
Room: 18
좌장 : 류상완 전남대학교
Chair : RYU Sang Wan (Chonnam National University)

E18.01 [16:10 - 16:22]
Size-dependent electronic transitions and shape anisotropy on optical properties

of CdSe quantum dots / KIM Sung Hun[1], MAN Minh Tan[2,3], LEE Joong Wook[4], PARK Kyoung-Duck[5], LEE Hong Seok[*1] ([1]Department of Physics, Jeonbuk National University, [2]Institute of Theoretical and Applied Research, Duy Tan University, [3]Faculty of Natural Sciences, Duy Tan University, [4]Department of Physics, Chonnam National University, [5]Department of Physics, UNIST)

E18.02 [16:22 - 16:34]
MoS_2 Layers on Nano-patterned SiO_2/Si Wafers: Broadband Absorption Enhancement / CHOI Hyeji[1], KIM Eunah[1], KWON Soyeong[1], KIM Jayeong[1], NGUYEN Anh Duc[2], KO Eunji[1], BAEK Suyeun[1], YOON Seokhyun[1], KIM Yong Soo[2], KIM Dong-Wook[*1] ([1]Department of Physics, Ewha Womans University, [2]Department of Physics, University of Ulsan)

E18.03 [16:34 - 16:46]
Valley-dependent directional emission of WS_2 layers to a dielectric nanowire / WOO Aran[1], SUNG Joong Hyun[1], GONG Su-Hyun[*1] ([1]Department of Physics, Korea University)

E18.04 [16:46 - 16:58]
Nanoscale investigation of hydrogen-free carbon nanocrystal film: tailoring the electrical and physical performance by tuning the sp^2-sp^3 configuration / PARK Jewook[*1], KIM Jong Hun[2,3], JUNG Yeonjoon[2], LEE Gwan-Hyoung[2,3,4,5] ([1]Center for Artificial Low Dimensional Electronic Systems, IBS, [2]Department of Materials Science and Engineering, Seoul National University, [3]Research Institute of Advanced Materials, Seoul National University, [4]Institute of Engineering Research, Seoul National University, [5]Institute of Applied Physics, Seoul National University)

E18.05 [16:58 - 17:10]
Effects of Interlayer Coupling and Band Offset on Second Harmonic Generation in Vertical MoS_2/ $MoS_{2(1-x)}Se_{2x}$ Structures / KIM Yong Soo[*1], LE TAM CHINH[1] ([1]Department of Physics, University of Ulsan)

[E19-bp] Biological physics II
2020. 11. 05 Thursday 16:10~17:34
Room: 19
좌장 : 김채운 울산과학기술원
Chair : KIM Chae Un (UNIST)

E19.01 [16:10 - 16:22]
Development of a label-free interferometric scattering method for characterizing biomolecules and their interactions at a single molecule level / MOON Hyeon-Mln[1], LEE Il-Buem[1], LEE Sehwan[1,2], PARK Jin-Sung[1], HONG Seok-Cheol[*1,2], CHO Minhaeng[1,3] ([1]Center for Molecular Spectroscopy and Dynamics, Institute for Basic Science (IBS), [2]Physics, Korea University, [3]Chemistry, Korea University)

E19.02 [16:22 - 16:34]

Parylene microfluidic calorimeter as a cell-based assay platform / SEO Sumin[2], LEE Wonhee[*1,2] ([1]Department of Physics, KAIST, [2]Graduate School of Nanoscience and Technology, KAIST)

E19.03 [16:34 - 16:46]

Termination Mechanism in Prokaryotic Transcription Determined the Fate of RNA Polymerase / HOHNG Sungchul[*1,2], SONH Eunho[1,2], UHM Heesoo[1,2,3] ([1]Seoul National University, [2]Department of Physics and Astronomy, Institute of Applied Physics, Seoul National University, [3]Department of Physics, University of Oxford)

E19.04 [16:46 - 16:58]

Structural and single-molecule studies reveal the molecular function underlying histone loading of Schizosaccharomyces Pombe AAA+ ATPase Abo1 / LEE Ja Yil[*1], KANG Yujin[1] ([1]School of Life Sciences, UNIST)

E19.05 [16:58 - 17:10]

TonEBP recognizes R-loops and initiates m6A RNA methylation for R-loop resolution / CHEON Na Young[1], KANG Hyun Je[1], MYUNG Kyungjae[1], KWON Hyug Moo[1,2], LEE Ja Yil[*1,2] ([1]School of Life Sciences, UNIST, [2]Center of Genomic Integrity, IBS)

E19.06 [17:10 - 17:22]

Revealing and analyzing the three-dimensional strcture of human mitotoic chromosome / LIM Chan[1], SUNG Daeho[1,2], SONG Changyong[1,2], JEON Jae-Hyung[*1] ([1]Department of Physics, POSTECH, [2]Photon Science Center, POSTECH)

E19.07 [17:22 - 17:34]

In vitro and in vivo PABP count during translation / KIM Byungju[1], SEOL Jincheol[1], PARK Yeonkyoung[2,3], KIM Yoon Ki[2,3], LEE Jong-Bong[*1,4] ([1]Physics, POSTECH, [2]Creative Research Initiatives Center for Molecular Biology of Translation, Korea University, [3]School of Life Sciences, Korea University, [4]School of Interdisciplinary Bioscience and Bioengineering, POSTECH)

[E20-or] "KPS-KOFST 젊은 연구자상" 후보자 논문 발표 및 선정("KPS-KOFWST Young Researcher Award" – Applicant's presentation and selection)

2020. 11. 04 Wednesday 12:00 – 11. 06 Friday 18:00 (Release on the website)
2020. 10. 21 Wednesday 14:10~16:30 (Presentation)

Room: 20

좌장 : 류미이 강원대학교

Chair : RYU Mee-Yi (Kangwon National University)

[14:00 - 14:10]
회장 · 여성위원회 위원장 인사말 / 이범훈(서강대) · 김현정(서강대)

E20.01 [14:10 - 14:30]
Oxygen Vacancy Engineering for Highly Tunable Ferromagnetic Properties: A Case of $SrRuO_3$ Ultrathin Film with a $SrTiO_3$ Capping Layer / 고은교*1 ([1]서울대/IBS)

E20.02 [14:30 - 14:50]
Layering Transition and Novel Topological Defects of Chiral Nematic Liquid Crystals Confined in a Cylinder / 은종희*1 ([1]UNIST)

E20.03 [14:50 - 15:10]
Instability of j=3/2 Bogoliubov Fermi-surfaces / 오한빛*1 ([1]KAIST)

E20.04 [15:10 - 15:30]
Off-diagonal singlet state in the infinite-layer nickelate with Ni^{2+} ion / 진효선*1 ([1]고려대)

E20.03 [15:30 - 15:50]
Identification of Additional Jets in the $t\bar{t}b\bar{b}$ Events by Using Deep Neural Network / 최지은*1 ([1]한양대)

E20.03 [15:50 - 16:10]
Optical absorption and anomalous photoconductivity in Methylammonium lead mixed halide single crystals / 변혜령*1 ([1]서강대)

E20.03 [16:10 - 16:30]
Study of event Jettiness in the H → ZZ* → 4l decay channel / 김미란*1 ([1]성균관대)

Session F

2020 November 6(Fri) 09:00~10:48

[F1-pa] Non-accelerator II

2020. 11. 06 Friday 09:00~10:48

Room: 01

좌장 : 윤성우 기초과학연구원

Chair : YOUN SungWoo (IBS)

F1.01 [09:00 - 09:12]

Status of NEOS-II / OH Yoomin*1 ([1]IBS)

F1.02 [09:12 - 09:24]

Pulse Shape Discrimination using Convolution Neural Network for NEOS-II / JEONG Yeonwoo*1, SIYEON Kim*1 ([1]Physics, Chung-ang University)

F1.03 [09:24 - 09:36]

Performance study of a large water Cherenkov neutrino detector in Korea / KIM HyunSoo*1, YU SeongHyeon[2], HONG Jaejin[2], SEO Jiwoong[2], YU Intae[2], JANG Jiseung[3], SHIN Bokkyun[4], KWON EunHyang[5], SEO Hyunkwan[5], LEE Youngmin[6] ([1]Physics and Astronomy, Sejong University, [2]Physics, Sungkyunkwan University, [3]Physics, GIST, [4]Physics, UNIST, [5]Physics, Seoul National University, [6]Physics, KAIST)

F1.04 [09:36 - 09:48]

Background Study of NEOS-II / KO Young Ju*1 ([1]IBS)

F1.05 [09:48 - 10:00]

Data Analysis and Simulation for NEOS-II / KIM Jinyu*1 ([1]Department of Physics, Sejong University)

F1.06 [10:00 - 10:12]

Analysis of KAPAE data on Positronium Annihilation Energy and Position for CPT violation studies / PARK HyeoungWoo[1], JIN Jegal[1], JUNG Dongwoo[1], HWANG Sanghoon[2], KIM Hong Joo*1 ([1]Department of Physics, Kyungpook National University, [2]Center for Ionizing Radiation, KRISS)

F1.07 [10:12 - 10:24]

18 T High Temperature Superconducting Magnet for an Axion Haloscope Experiment / AHN Moohyun*1, YANG Byeongsu[2], MIN Byeong Hun[2], LEE Youngjae[3], YOON

Hojin[3], KIM Donglak[2], YOO Jonghee[2,3] ([1]Department of Physics, Seoul National University, [2]CAPP, IBS, [3]Department of physics, KAIST)

F1.08 [10:24 - 10:36]

Search for invisible axion dark matter with a multiple-cell haloscope / JEONG Junu[1,2], YOUN Sungwoo[2], BAE Sungjae[1,2], SEONG Taehyeon[2], KIM Jihn E[3], SEMERTZIDIS Yannis Kyriakos[*1,2] ([1]Physics, KAIST, [2]Center for Axion and Precision Physics Research, Institute for Basic Science, [3]Department of Physics, Kyung Hee University)

F1.09 [10:36 - 10:48]

Status of Neutrino Elastic-scattering Observation with NaI(Tl)(NEON) / CHOI Jaejin[*1] ([1]Department of Physics and Astronomy, Seoul National University)

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[F2-pa] Accelerator III

2020. 11. 06 Friday 09:00~11:00

Room: 02

좌장 : 이상훈 서울시립대학교

Chair : LEE Jason Sang Hun (University of Seoul)

F2.01 [09:00 - 09:12]

Readiness of detector mass production and the quality-control procedure for the CMS muon system in the Phase-2 LHC / LEE Kyong Sei[*1], KANG MInho[2], JO Youngmin[2] ([1]Korea University, [2]Institute of Basic Science, University of Seoul)

F2.02 [09:12 - 09:24]

Trigger RPCs for SHiP experiments and an Application to Muon Radiography / LEE Kyong Sei[*1], KANG MInho[1,2], JO Youngmin[1,2], KO Jae-Woo[3], LEE Kang Young[3], SON Jong Youn[3], YOUN Chunsil[3], WOO Jong-Kwan[4], KIM Yong Kyun[5], CHOI Ki-Young[6] ([1]Korea University, [2]Institute of Basic Sciences, University of Seoul, [3]Dept. of Physics Education and RINS, Gyeongsang National University, [4]Dept. of Physics, Jeju National University, [5]Dept. of Science Education, Gwangju National University of Education, [6]Dept. of Physics, Sungkyunkwan University)

F2.03 [09:24 - 09:36]

Scattering and Neutrino Detector at the LHC / YOON Chun Sil[*1], KIM Sung Hyun[2], KO Jae-Woo[2], LEE Kang Young[2], PARK Byung Do[2], SOHN Jong Yoon[2], LEE Kyong Sei[3], KIM Yeong Gyun[4], CHOI Ki-Young[5], WOO Jong-Kwan[6] ([1]Research Institute of Natural Science, Gyeongsang National University, [2]Physics Education Department & RINS, Gyeongsang National University, [3]KODEL, Korea University, [4]Department of Science Education, Gwangju National University of Education, [5]Department of Physics, Sungkyunkwan University, [6]Department of Physics, Jeju National University)

F2.04 [09:36 - 09:48]

The measurement status of the aging properties of the Korean tirpple GEM detector for the CMS upgrade. / YOON Inseok[*1], SONG DongHyun[2], LEE Gyeong Gu[3], MA Kyung Ju[2], CHOI Minuk[3], KIM Mi Ran[3] ([1]Department of Physics and Astronomy, Seoul National University, [2]Department of Physics, University of Seoul, [3]Department of Physics, Sungkyunkwan University)

F2.05 [09:48 - 10:00]

The Front-end Chip Test Results for the LGAD Based Precision Timing Application in MTD project for CMS Phase-2 Upgrade / DOGRA Sunil Manohar[*1], MOON Chang-Seong[1], LEE Jongho[1] ([1]Department of physics, Kyungpook National University)

F2.06 [10:00 - 10:12]

Studies of MET regression with machine learning technique for Phase-2 Upgrade of CMS Level-1 Trigger system / MOON Chang-Seong[*1], SEO YeongDeok[1] ([1]Department of Physics, Kyungpook National University)

F2.07 [10:12 - 10:24]

FPGA based firmware implementation of MET algorithm for CMS Phase-2 Level-1 trigger / MOON Chang-Seong[*1], HONG Jieun[1] ([1]Department of Physics, Kyungpook National University)

F2.08 [10:24 - 10:36]

Frontiers in HEP precision measurements through machine learning / RAMIREZ MORALES ANDRES[*1] ([1]Physics Deparment, Kyungpook National University)

F2.09 [10:36 - 10:48]

R-Parity Violating Supersymmetry event classification using Convolutional Neural Network with Large Scale Deep Learning / AN Soyun[1], BAE DongSung[2], GOH Junghwan[*2], MOON Chang-Seong[*1], KIM Jiwoong[1], KIM SungWon[3], KIM Tongil[3], LEE Seunghwan[2], YOO Changhyun[2], YOO Hwidong[3] ([1]Department of Physics, Kyungpook National University, [2]Department of Physics, Kyung Hee University, [3]Department of Physics, Yonsei University)

F2.10 [10:48 - 11:00]

Permutation independent Deep Learning Algorithm for RPV SUSY event classification / GOH Junghwan[*1], YOO Changhyun[1], MOON Chang-Seong[*2], SOYUN An[2], BAE DongSung[1], KIM Jiwoong[2], KIM SungWon[3], KIM Tongil[3], LEE Seunghwan[1], YOO Hwidong[3] ([1]Department of Physics, Kyung Hee University, [2]Department of Physics, Kyungpook National University, [3]Department of Physics, Yonsei University)

[F3-nu] [E] [F] [APCTP-KPS-JPS Meeting]
New Prospects on Strong QCD and Hadrons

2020. 11. 06 Friday 09:00~10:36

Room: 03

좌장 : 김현철 인하대학교

Chair : KIM Hyun-Chul (Inha University)

F3.01 [09:00 - 09:24]
Diquark perspective on hadron structure / JIDO Daisuke*1 ([1]Tokyo Institute of Technology)

F3.02 [09:24 - 09:48]
Heavy baryon spectroscopy / HOSAKA Atsushi*1,2 ([1]RCNP, Osaka University, [2]ASRC, JAEA)

F3.03 [09:48 - 10:12]
Production of multi-quark baryon states with hadron beams / AHN Jung Keun*1 ([1]Korea University)

F3.04 [10:12 - 10:36]
Isospin mass differences of singly heavy baryons / YANG Ghil Seok[1], KIM Hyun-Chul*2 ([1]Soongsil University, [2]Department of Physics, Inha University)

[F4-as] [E] [F] [APCTP-KPS-JPS Meeting] Current Topics in Astrophysics I

2020. 11. 06 Friday 09:00~10:36

Room: 04

좌장 : 곽보근 동국대학교

Chair : GWAK Bogeun (Dongguk University)

F4.01 [09:00 - 09:24]
Gravitational waves from the early universe / YOKOYAMA Jun'ichi*1 ([1]RESCEU, The University of Tokyo)

F4.02 [09:24 - 09:48]
On Horava-Lifshitz-DeWitt Gravity: An Overview and Future Directions / PARK Mu-In*1 ([1]CQUeST, Sogang University)

F4.03 [09:48 - 10:12]
Tests of gravity with gravitational waves / NISHIZAWA Atsushi*1 ([1]RESCEU, The University of Tokyo)

F4.04 [10:12 - 10:36]
Fuzzy dark matter and mysteries of galaxies / LEE Jae-Weon*1 ([1]Department of Electrical and Electronic Engineering, Jungwon University)

[F5-co] [E] [F] [APCTP-KPS-JPS Meeting] New trends in quantum and topological matters under extreme condition I

2020. 11. 06 Friday 09:00~10:36

Room: 05

좌장 : **박제근** 서울대학교

Chair : PARK Je-Geun (Seoul National University)

F5.01 [09:00 - 09:24]

Quantum Anomalous Hall Effect in Two-Dimensional Topological Magnetic Insulators / YU Jaejun*1 ([1]Center for Theoretical Physics, Department of Physics and Astronomy, Seoul National University)

F5.02 [09:24 - 09:48]

Non-Hermitian Topological Phases / SATO Masatoshi*1 ([1]Yukawa Institute for Theoretical Physics, Kyoto University)

F5.03 [09:48 - 10:12]

Universal behaviors of deconfined fractionalized spin excitations in α-$RuCl_3$ / PARK Jae-Hoon*1,2 ([1]Max Planck POSTECH/Korea Research Initiative, POSTECH, [2]Department of Physics, POSTECH)

F5.04 [10:12 - 10:36]

Experimental signatures of a Kitaev quantum spin liquid in α-$RuCl_3$ / SHIBAUCHI Takasada*1 ([1]Department of Advanced Materials Science, University of Tokyo)

[F6-co] Nano-Meso/Surface-Interface I

2020. 11. 06 Friday 09:00~10:36

Room: 06

좌장 : **김세권** 한국과학기술원

Chair : KIM Se Kwon (KAIST)

F6.01 [09:00 - 09:12]

Chiral edge states along the mass-inverted doamin wall in gapped graphene / MYOUNG Nojoon*1 ([1]Department of Physics Education, Chosun University)

F6.02 [09:12 - 09:24]

Spatial structure of two-channel Kondo cloud / SHIM Jeongmin[1], KIM Donghoon[1], SIM Heung-Sun*1 ([1]Department of Physics, KAIST)

F6.03 [09:24 - 09:36]

Universal Thermal Entanglement of the Multi-channel Kondo Effect / SIM Heung-Sun*1, KIM Donghoon[1], SHIM Jeongmin[1] ([1]Department of Physics, KAIST)

F6.04 [09:36 - 09:48]
Robust Quantum Point Contact via Trench gate Modulation / PARK Dongsung T.[1], LEE Seokyeong[1], KIM Uhjin[2], CHOI Hyoungsoon[*1], CHOI Hyungkook[*2] ([1]Physics, KAIST, [2]Physics, Jeonbuk National University)

F6.05 [09:48 - 10:00]
Crystallization of Transition-metal Oxides in Aqueous Solution beyond Ostwald Ripening / HAN Sang Wook[*1], JEONG Eun-Suk[1], HWANG In-Hui[1] ([1]Department of Physics Education, Jeonbuk National University)

F6.06 [10:00 - 10:12]
Particle-antiparticle duality and re-fractionalization of chiral solitons in the extended Su-Schrieffer-Heeger model / OH Chang-geun[1], HAN Sang-Hoon[1], JEONG Seung-Gyo[2], KIM Tae-Hwan[2], CHEON Sang Mo[*1] ([1]Department of Physics, Hanyang University, [2]Department of Physics, POSTECH)

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F6.07 [10:12 - 10:24]
Electron spin resonance of a single atom in vector magnetic fields / KIM Jinkyung[1,2], BUI Hong Thi[1,2], JANG Won-jun[3], LEE Soonhyeong[1,2], KRYLOV Denis[1,2], CHOI Deung-jang[4], WOLF Christoph[1,2], HEINRICH Andreas[1,2], BAE Yujeong[*1,2] ([1]Center for Quantum Nanoscience, IBS, [2]Department of Physics, Ewha Womans University, [3]Nano Electronics, Samsung Advanced Institute of Technology, [4]Institut de Physique et Chimie des Mate´riaux de Strasbourg, Universite´ de Strasbourg)

F6.08 [10:24 - 10:36]
Effects of doping on electronic and magnetic properties of twisted graphene / CHO Yosep[1], CHOI Young Woo[1], CHOI Hyoung Joon[*1] ([1]Department of Physics, Yonsei University)

[F7-co] [F] Synchrotron x-ray studies for advanced electronic materials and quantum mechanical properties II

2020. 11. 06 Friday 09:00~10:48

Room: 07

좌장 : **서정화** 동아대학교

Chair : SEO Jung Hwa (Dong-A University)

F7.01 [09:00 - 09:24]
Ultrafast dynamic phenomena in strongly electron-correlated materials investigated at PAL-XFEL / CHUN SAE HWAN[*1] ([1]XFEL Division, Pohang Accelerator Laboratory)

F7.02 [09:24 - 09:36]
ARPES and Time-resolved ARPES studies in epitaxially grown 2D chalcogenide thin films / CHOI Byoung Ki[1], KIM Hyuk Jin[1], LEE In Hak[1], CHANG Young Jun[*1] ([1]Department of Physics, University of Seoul)

F7.03 [09:36 - 10:00]

Time resolved measurement of topological spin structure by using soft x-ray microscopy / HAN Hee-Sung[1], LEE Sooseok[1], YU Young-Sang[2], HONG Jung-Il[3], IM Mi-Young[4], LEE Ki-Suk[*1] ([1]School of Materials Science and Engineering, UNIST, [2]Advanced Light Source, Lawrence Berkeley National Lab, [3]Department of Emerging Materials Science, DGIST, [4]Center for X-ray Optics, Lawrence Berkeley National Lab)

F7.04 [10:00 - 10:12]

Observation of Three-dimensional Magnetic Domain Structure by Using Transmission X-ray Microscopy / LEE Sooseok[1], HAN Hee-Sung[1], YU Young-Sang[2], JE Soong-Geun[3], KANG Myeonghwan[1], OK Hye-Jin[1], KIM Namkyu[1], CHAO Weilun[4], IM Mi-Young[4], LEE Ki-Suk[*1] ([1]School of Materials Science and Engineering, UNIST, [2]Advanced Light Source, Lawrence Berkeley National Lab, [3]Department of Physics, Chonnam National University, [4]Center for X-ray Optics, Lawrence Berkeley National Lab)

F7.05 [10:12 - 10:36]

Enhancing Vertical Carrier Transport on a Thin Film Polymer Semiconductor via Molecular orientation modification by a femto-second Laser process / CHAE Sangmin[2], YI Ahra[2], KIM Hyo Jung[2], CHOI Jiyeon[3], LEE Hyun Hwi[*1] ([1]Beamline Research Division, Pohang Accelerator Laboratory, [2]Department of Organic Material Science and Engineering, Pusan National University, [3]Department of Laser and Electron Beam Application, KIMM)

F7.06 [10:36 - 10:48]

Electronic band structure at the Au/Perovskite interface via photoemission spectroscopies / SEO Jung Hwa[*1], KANG Juhwan[1] ([1]physics, Dong-A University)

[F8-co] Condensed Matter Computational Physics I

2020. 11. 06 Friday 09:00~10:24

Room: 08

좌장 : 이재광 부산대학교

Chair : LEE Jaekwang (Pusan National University)

F8.01 [09:00 - 09:12]

Off-centered Pb interstitials inducing lattice instability in PbTe / PARK Sungjin[*1], RYU Byungki[*1] ([1]Energy Conversion Research Center, KERI)

F8.02 [09:12 - 09:24]

Neural network interatomic potential for (B,N)/Pt(111) surface system / YEO Kang-mo[1], PARK Karam[1], JEONG Sukmin[*1] ([1]Department of Physics, Jeonbuk National University)

F8.03 [09:24 - 09:36]

Accurate band gap prediction with tuplewise graph based material representation

based on machine learning / LEE Yea-Lee*[1], NA Gyoung S.[1], JANG Seunghun[1], CHANG Hyunju[1] ([1]Chemical Data-driven Research Center, KRICT)

F8.04 [09:36 - 09:48]
High mobility two-dimensional electron gas in $PbZr_{0.5}Ti_{0.5}O_3/BaSnO_3$ heterostructure / HWANG Jaejin[1], LEE Jaekwang*[1] ([1]Department of Physics, Pusan National University, [2]Pusan National University)

F8.05 [09:48 - 10:00]
Partial quantum revivals of localized condensates indistorted lattices / KO Dogyun*[1], SUN Meng[1], ANDREANOV Alexei[1], RUBO Yuri[1], SAVENKO Ivan[1] ([1]basic science, UST)

F8.06 [10:00 - 10:12]
First Principles Study of a Phase Change Mechanism of $GeTe/Sb_2Te_3$ Superlattice Structure / KWON Young-Kyun*[1], PARK Sunho[1], LEE Chang Woo[2], CHO Mann-ho[2] ([1]Department of Physics, Kyung Hee University, [2]Department of Physics and Applied Physics, Yonsei University)

F8.07 [10:12 - 10:24]
Deep Convolutional Neural Network for Determining the Unit Cell Structure of Lead Titanate / NOH Do Young*[1], LEE Yoon Gyu[2] ([1]IBS, IBS, [2]Department of Physics and Photon Science, GIST)

[F9-ap] Surface and Interface
2020. 11. 06 Friday 09:00~10:12
Room: 09
좌장 : 이진호 서울대학교
Chair : LEE Jinho (Seoul National University)

F9.01 [09:00 - 09:12]
Ab initio study of remote heteroepitaxial growth of GaN on the graphene/Al_2O_3 substrate / CHA Janghwan[2,3,4], HONG SukLyun*[2,3,4] ([1]Sejong University, [2]Department of Physics, Sejong University, [3]Graphene Research Institute, Sejong University, [4]GRI-TPC International Research Center, Sejong University)

F9.02 [09:12 - 09:24]
First principles study of $TiCl_4$ adsorption on bare and hydroxyl terminated alpha-phase Al_2O_3 during TiN ALD / LEE Gun-Do*[1], CHOI Woo Jin[1], LEE Sung Woo[1], PARK Hwan Yeol[1] ([1]Department of Materials Science and Engineering, Seoul National University)

F9.03 [09:24 - 09:36]
Electrohydrodynamic-Driven Nanostructure Replica Transferred Surface Enhanced

Raman Scattering Active Swab for Rapid Detection of Low-Concentrated Substances / HYEON Myeongjun[1], PARK Hyunje[1], HWANG Jaeseok[2], LEE Jaejong[3], KANG Dae Joon[*1] ([1]Sungkyunkwan University, [2]Energy Science, Sungkyunkwan University, [3]Nanomanufacturing Division, KIMM)

F9.04 [09:36 - 09:48]

Laser-induced crystalline-phase transformation for hematite nanorod photoelectrochemical cells / KONG Heejung[1], YEO Junyeob[*1] ([1]Department of Physics, Kyungpook National University)

F9.06 [09:48 - 10:00]

Fog Collection Based on Anisotropic Wetting for Secondary Electrohydrodynamic-induced Hybrid Structures / PARK Hyunje[1], HWANG Jaeseok[2], HYEON Myeongjun[1], LEE Jaejong[3], KANG Dae Joon[*1] ([1]Sungkyunkwan University, [2]Energy Science, Sungkyunkwan University, [3]Nanomanufacturing Division, KIMM)

[F10-ap] 2D materials I

2020. 11. 06 Friday 09:00~10:36

Room: 10

좌장 : 이철호 고려대학교

Chair : LEE Chul-Ho (Korea University)

F10.01 [09:00 - 09:12]

Raman studies on interlayer vibration and structural phase transition in few-layer 1T' and Td $MoTe_2$ / CHEON Yeryun[1], KIM Kangwon[1], CHEONG Hyeonsik[*1] ([1]Department of Physics, Sogang University)

F10.02 [09:12 - 09:24]

Quasi-Fermi Level Splitting in Epitaxial Heterobilayers of WS_2 and MoS_2 / KIM Dong-Wook[*1], KIM Bora[1], KIM Jayeong[1], TSAI Po-Cheng[2], LIN Shih-Yen[2], YOON Seokhyun[1] ([1]Department of Physics, Ewha Womans University, [2]Reserch Center for Applied Sciences, Academia Sinica)

F10.04 [09:24 - 09:36]

Atomic-Layer-Confined Multiple Quantum Wells Enabled by Monolithic Bandgap Engineering of Transition Metal Dichalcogenides / KIM Yoon Seok[1], KANG Sojung[2], SO Jae-Pil[3], KIM Jong Chan[4], KIM Kangwon[5], YANG Seunghoon[1], JUNG Yeonjoon[6], SHIN Yongjun[6], LEE Seongwon[4], LEE Donghun[1], PARK Jin-Woo[2], CHEONG Hyeonsik[5], JEONG Hu Young[7], PARK Hong-Gyu[1,3], LEE Gwan-Hyoung[6,8,9,10], LEE Chul-Ho[*1] ([1]Korea University, [2]Department of Materials Science and Engineering, Yonsei University, [3]Department of Physics, Korea University, [4]School of Materials Science and Engineering, UNIST, [5]Department of Physics, Sogang University, [6]Department of Materials Science and Engineering, Seoul

National University, [7]UNIST Central Research Facilities (UCRF), UNIST, [8]Research Institute of Advanced Materials (RIAM), Seoul National University, [9]Institute of Engineering Research, Seoul National University, [10]Institute of Applied Physics, Seoul National University)

F10.05 [09:36 - 09:48]

Surface Photovoltage Spectroscopy Study of MoS_2 Monolayers on Au Nanostructures / KIM Dong-Wook*[1], SONG Jungeun[1], KWON Soyeong[1], KIM Bora[1], MURTHY Lakshmi N.S.[2], LEE Taejin[3], HONG Inhae[4], LEE Byoung Hoon[4], LEE Sang Wook[1], CHOI Soo Ho[5], KIM Ki Kang[5], CHO Chang-Hee[3], HSU Julia W.P.[2] ([1]Department of Physics, Ewha Womans University, [2]Department of Materials Science and Engineering, University of Texas at Dallas, [3]Department of Emerging Materials Science, DGIST, [4]Division of Chemical Engineering and Materials Science, Ewha Womans University, [5]Center of Integrated Nanostructure Physics (CINAP), Institute of Basic Science (IBS), Sungkyunkwan University)

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F10.06 [09:48 - 10:00]

Expanding Chemical Enhancement Mechanism of SERS by using WS_2 / KIM Jayeong[1], JANG Yujin[1], SHIN Yukyung[2], KIM Myunghwa[2], YOON Seokhyun*[1] ([1]Department of Physics, Ewha Womans University, [2]Department of Chemistry, Ewha Womans University)

F10.07 [10:00 - 10:12]

CO-induced Phase Transition of WS_2 and MoS_2 Nanocrystals: A DFT Study / HONG Deokgi[1], LEE Sungwoo[1,2], JOO Young-Chang[1,2,3], LEE Gun-Do*[1,2] ([1]Department of Materials Science and Engineering, Seoul National University, [2]Research Institute of Advanced Materials, Seoul National University, [3]Advanced Institute of Convergence Technology, Advanced Institute of Convergence Technology)

F10.08 [10:12 - 10:24]

Effect of stacking order change in 2D MoS_2, WS_2 heterostructure with Raman spectroscopy / KIM Jayeong[1], BAEK Suyeun[1], KIM Bora[1], KIM Dongwook[1], TSAI Po-Cheng[2], LIN Shih-Yen[2], YOON Seokhyun*[1] ([1]Department of Physics, Ewha Womans University, [2]Research Center for Applied Sciences, Academia Sinica)

[F11] No session

[F12-st] Nonequilibrium systems

2020. 11. 06 Friday 09:00~10:48

Room: 12

좌장 : **박수찬** 가톨릭대학교

Chair : PARK Su-Chan (The Catholic University of Korea)

F12.01 [09:00 - 09:24]

Emergence of motile structures via symmetry breaking in active fluids / BAEK Yongjoo*1 ([1]Department of Physics and Astronomy, Seoul National University)

F12.02 [09:24 - 09:36]

Langevin dynamics of an active Brownian particle in a viscoelastic polymer environment / JOO Sungmin[1], DURANG Xavier[1], LEE O-chul*1, JEON Jae-Hyung*1 ([1]Department of Physics, POSTECH)

F12.03 [09:36 - 09:48]

Fluctuation dissipation theorem for energy eigenstates / NOH Jae Dong*1 ([1]Department of Physics, University of Seoul)

F12.04 [09:48 - 10:00]

Motility induced by symmetry breaking in an active fluid / KIM Ki-Won[1], CHOE Yunsik[1], BAEK Yongjoo*1 ([1]Department of Physics and Astronomy, Seoul National University)

F12.05 [10:00 - 10:12]

Membrane fluctuations encapsulating active matters / GRANICK Steve*1,2,3, PARK Myeonggon[1,2] ([1]Center for Soft and Living Matter, IBS, [2]Department of Physics, UNIST, [3]Department of Chemistry, UNIST)

F12.06 [10:12 - 10:24]

Effect of magnetic field on the dream engine condition / PARK Jong-Min[1], PARK Hyunggyu*1 ([1]School of Physics, KIAS)

F12.07 [10:24 - 10:36]

Data dependence of the resolution-relevance tradeoff in unsupervised learning / KIM Gilhan[1], LEE Hojun[1], JO Junghyo[2], BAEK Yongjoo*1 ([1]Department of Physics and Astronomy, Seoul National University, [2]Department of Physics Education, Seoul National University)

F12.08 [10:36 - 10:48]

Deep reinforcement learning for feedback-controlled flashing ratchets / KIM Dong-Kyum[1], JEONG Hawoong*1,2 ([1]Physics Department, KAIST, [2]Center for Complex Systems, KAIST)

[F13-te] [F] Curriculum revision and direction of physics teacher education

2020. 11. 06 Friday 09:00~10:36

Room: 13

좌장 : 정용욱 경상대학교

Chair : CHEONG Yong Wook (Gyeongsang National University)

F13.01 [09:00 - 09:24]

물리교육에서 이론과 실행간 격차에 대한 이해 / PARK Jong Won*1 ([1]Chonnam National University)

F13.02 [09:24 - 09:48]

물리예비교사양성에서 탐구 교육 / LEE Bong woo*1 ([1]Dankook University)

F13.03 [09:48 - 10:12]

물리 교육과정 개정과 교사교육의 방향 탐색: 고등학교 현대물리학 교육의 어려움을 중심으로 / LEE Gyoungho*1, KIM Hongbin1 ([1]physics education, Seoul National University)

F13.04 [10:12 - 10:36]

모든 이를 위한 물리교육에 대한 소고 / 강남화*1 ([1]한국교원대학교)

[F14-pl] [F] Symposium for the Basic Fusion R&D Program I

2020. 11. 06 Friday 09:00~10:48

Room: 14

좌장 : 인용균 울산과학기술원

Chair : IN Yongkyoon (UNIST)

F14.01 [09:00 - 09:36]

핵융합 코어 플라즈마 붕괴 기작 및 제어 연구 / 황용석*1 ([1]Dept. of Nuclear Engineering, Center for Advance Research in Fusion Reactor Engineering, Seoul National University)

F14.02 [09:36 - 10:12]

혁신적 디버터 열속 제어 처리 기술 거점 센터 연구 개발 현황 / HUR Min Sup*1, 채길병[2], 조항진[3] ([1]Physics, UNIST, [2]핵물리응용연구부, KAERI, [3]첨단원자력공학부, POSTECH)

F14.03 [10:12 - 10:48]

플라즈마 불순물 및 경계 열속 연구센터 / CHOE Wonho*1,4, GHIM Young-chul1,4, CHUNG Chin-Wook2,4, LEE Jungpyo3,4, IERC TEAM IERC Team4, LEE Hyungho5, HONG Suk-Ho5 ([1]KAIST, [2]Department Of Electrical Bio-Engineering, Hanyang University, [3]Department Of Nuclear Engineering, Hanyang University, [4]KAIST, Impurity and Edge plasma Research, [5]DEMO Technology Division, NFRI)

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[F15-op]] [F] Special approaches in integrated photonics I

2020. 11. 06 Friday 09:00~10:36

Room: 15

좌장 : 한상윤 대구경북과학기술원

Chair : HAN Sangyoon (DGIST)

F15.01 [09:00 - 09:24]

Symmetry breaking in integrated photonics / YU Kyoungsik*1 ([1]Electrical Engineering, KAIST)

F15.02 [09:24 - 09:48]

Evolution of photonic topological insulators from triangular lattice to honeycomb lattice / YANG Jin-Kyu*1,2, HWANG Yongsop[2], OH Sang Soon[3] ([1]Department of Optical Engineering, Kongju National University, [2]Institute of Application and Fusion for Light, Kongju National University, [3]School of Physics and Astronomy, Cardiff University)

F15.03 [09:48 - 10:12]

Kerr nonlinear nanophotonics in microring resonator / JUNG Hojoong*1 ([1]Korea Institute of Science and Technology (KIST))

F15.04 [10:12 - 10:36]

Chiral Plasmonic Nanosensors / JEONG Hyeon-Ho*1 ([1]School of Electrical Engineering and Computer Science, GIST)

[F16-at] Atomic, Molecular and Optical Physics I

2020. 11. 06 Friday 09:00~10:24

Room: 16

좌장 : 김휘동 한국표준과학연구원

Chair : KIM Huidong (KRISS)

F16.01 [09:00 - 09:12]

Non-Born-Oppenheimer Molecular Dynamics Observed by Coherent Nuclear Wave Packets / KIM JunWoo[2], KIM Dong Eon*1 ([1]Physics Department, POSTECH, [2]Department of Chemistry, Princeton University)

F16.02 [09:12 - 09:24]

Dual-frequency operation of unshielded radio-frequency atomic magnetometer / YU Ye Jin[1], LEE Hyun Joon[2], CHO In-Kui[2], MOON Han Seb*1 ([1]Pusan National University, [2]Radio & Satellite Research Division, ETRI)

F16.03 [09:24 - 09:36]

Diffusion induced spin relaxation of gaseous ^{129}Xe in the presence of magnetic gra-

dients / LEE Deok Young*[1], LEE Sangkyung[1], YIM Sin Hyuk[1], SHIM Kyumin[1] ([1]Agency for Defense Development)

F16.04 [09:36 - 09:48]
Multi-step energy dissipation in a binary superfluid gas by a moving magnetic obstacle / KIM Joon Hyun[1], HONG DeokHwa[1,2], SHIN Yong-il*[1,2] ([1]Department of Physics and Astonomy, Seoul National University, [2]Center for Correlated Electron Systems, Institute for Basic Science)

F16.05 [09:48 - 10:00]
Spontaneous defect formation in a thermally quenched Bose gas and the statistics of the defect number / GOO Junhong[1,2], LIM Younghoon[1,2], SHIN Yong-il*[1,2] ([1]Department of Physics and Astonomy, Seoul National University, [2]Center for Correlated Electron Systems, CCES (IBS))

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F16.06 [10:00 - 10:12]
Reflection of Helium clusters from two different square-wave gratings / KIM Leeyeong[2], PARK Sanghwan[3], LEE ChangYoung[3], SCHOELLKOPF Wieland[4], ZHAO Bum Suk*[1] ([1]Department of Chemistry, Department of Physics, UNIST, [2]Department of Physics, UNIST, [3]Department of Chemical Engineering, UNIST, [4]Fritz-Haber-Institut der Max-Planck-Gesellschaft)

F16.07 [10:12 - 10:24]
Single-site Resolving 7Li Quantum Gas Microscope / CHOI Jae Yoon*[1], KWON Kiryang[1], KIM Kyungtae[1], HUH SeungJung[1], HUR Junhyeok[1] ([1]Physics Department, KAIST)

[F17-se] [F] Nano-optical characterizations of semiconducting materials I
2020. 11. 06 Friday 09:00~10:12
Room: 17
좌장 : **박경덕** 울산과학기술원
Chair : PARK Kyoung-Duck (UNIST)

F17.01 [09:00 - 09:24]
Nanopipette/QTF-AFM-based Nanofabrication and Surface Characterization / AN Sangmin*[1] ([1]Department of Physics, Research Institute of Physics and Chemistry, Jeonbuk National University)

F17.02 [09:24 - 09:48]
Investigating Heterogeneous Defects in Two-Dimensional Transition Metal Dichalcogenides via Tip-Enhanced Raman Spectroscopy / LEE Chanwoo[1], JEONG Mun Seok*[1] ([1]Department of Energy Science, Sungkyunkwan University)

F17.03 [09:48 - 10:12]
Dynamic plasmonic tip-cavity from weak to strong coupling regime / PARK Kyoung-Duck*1 ([1]Physics, UNIST)

[F18-se] Nitride & oxide semiconductors
2020. 11. 06 Friday 09:00~10:12
Room: 18
좌장 : 이홍석 전북대학교
Chair : LEE Hong Seok (Jeonbuk National University)

F18.01 [09:00 - 09:12]
전계방출 디스플레이를 위한 적색 Ba_2GdSbO_6 : Eu^{3+} 형광체의 제작 및 특성 / HUA Yongbin[2], YU Jae Su*1,2 ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Engineering, Kyung Hee University)

F18.02 [09:12 - 09:24]
An Epitaxially Separated GaN Thin Film As An Alternative to A Free-Standing GaN Thick Film / KIM Donghoi[2], JANG Dongsoo[1], LEE Hyunkyu[2], KIM Jayeong[3], JANG Yujin[3], YOON Seokhyun[3], KIM Chinkyo*1,2 ([1]Dept. of Physics, Kyung Hee University, [2]Dept. of Information Display, Kyung Hee University, [3]Dept. of Physics, Ewha Womans University)

F18.03 [09:24 - 09:36]
Non-edge-triggered polarity inversion of a GaN thin film from (0001) to (000-1) / LEE Hyunkyu[2], JANG Dongsoo[1], KIM Donghoi[2], KIM Chinkyo*1,2 ([1]Dept. of Physics, Kyung Hee University, [2]Dept. of Information Display, Kyung Hee University)

F18.04 [09:36 - 09:48]
Growth of composite TiO_x and N:TiO_x thin films deposited by DC sputtering technique. / SEO Hye-Won*1, KIM Jin-Soo[1], JEE Hyeok[1] ([1]Dept of Physics, Jeju National University)

F18.05 [09:48 - 10:00]
Observation of cavity modes in GaN equilateral triangular structure / SUNG Chan Young[1], SONG Hyun Gyu[1], CHO Yong Hoon*1 ([1]Department of Physics, KAIST)

F18.06 [10:00 - 10:12]
Field dependent optical properties for InGaN pyramidal apex quantum structure / SONG Yongho[1], AHN Seonghun[1], YEO Hwan-Seop[1], LEE Kwanjae[1], SUNG Chan young[1], CHO Yong Hoon*1 ([1]KAIST)

Session G

2020 November 6(Fri) 11:10~12:58

[G1-pa] [E] [F] [APCTP-KPS-JPS Meeting] Xe1T anomaly

2020. 11. 06 Friday 11:10~13:10

Room: 01

좌장 : 박성찬 연세대학교

Chair : PARK Seong Chan (Yonsei University)

G1.01 [11:10 - 11:34]
Observation of excess electronic recoil events in XENON1T / KAZAMA Shingo*1 ([1]Nagoya University)

G1.02 [11:34 - 11:58]
Review of theoretical models explaining the XENON1T excess / TAKAHASHI Fuminobu*1 ([1]Tohoku University)

G1.03 [11:58 - 12:22]
Leptonic new forces for Xe1t anomaly / PARK Seongchan*1 ([1]Yonsei University)

G1.04 [12:22 - 12:46]
Exothermic Dark Matter for XENON1T Excess / LEE Hyun Min*1 ([1]Department of Physics, Chung-Ang University)

G1.05 [12:46 - 13:10]
Implications of Dark Matter Interpretation / PARK Jong-Chul*1 ([1]Chungnam National University)

[G2-pa] Accelerator IV

2020. 11. 06 Friday 11:10~12:58

Room: 02

좌장 : 권영준 연세대학교

Chair : KWON Youngjoon(Yonsei University)

G2.01 [11:10 - 11:22]
Search for the $B^0 \to l^+ \tau^-$ decays at the Belle experiment / KIM Kyungho*1, KWON Youngjoon[1] ([1]Department of Physics, Yonsei University)

G2.02 [11:22 - 11:34]
Monte-Carlo study for a search of $B^0 \to K_S^0 K_S^0 \gamma$ in the Belle experiment / JEON

Hyebin[1], KIM Hongjoo[1], KANG Kookhyun[1], LI Jin1, LEE Seungcheol[1], PARK Hwanbae*[1] ([1]Kyungpook National University)

G2.03 [11:34 - 11:46]

Performance of the Belle II calorimeter trigger system at the SuperKEKB collider / CHEON Byung Gu*[1], KIM Cheolhun[1], CHO Haneol[1], UNNO Yuji[1], CHOI Sookyung[2], JANG Eunji[2], AHN Jungkeun[3], KIM Youngjun[3], KIM Sunghyun[4], LEE Insoo[4] ([1]Department of Physics, Hanyang University, [2]Department of Physics, Gyeongsang National University, [3]Department of Physics, Korea University, [4]Center for Underground Physics, IBS)

G2.04 [11:46 - 11:58]

Studies of dark sector at Belle & Belle II / PARK Seokhee[1], KWON Youngjoon*[1] ([1]Physics, Yonsei University)

G2.05 [11:58 - 12:10]

Toward first test beam with dual-readout calorimeter R&D for future e^+e^- collider / HA Seung kyu*[1], KIM Bobae[2], LEE Junghyun[2], LEE Sehwook[2], KO Sanghyun[4], KIM Doyeong[3], LEE Jason[3], LEE Yunjae[3], PARK Jongsuk[3], RYU Minsang[3], WATSON Ian[3], EO Yun[1], HWANG Kyuyoung[1], KIM Minsoo[1], YOO Hwidong[1] ([1]Yonsei University, [2]Department of Physics, Kyungpook National University, [3]Department of Physics, University of Seoul, [4]Department of Physics, Seoul National University)

G2.06 [12:10 - 12:22]

Study on EM/jet energy resolution with 4π dual-readout calorimeter / YOO Hwidong*[1], LEE Sehwook[2], KIM Bobae[2], LEE Junghyun[2], KO Sanghyun[3], KIM Doyeong[4], LEE Jason[4], LEE Yunjae[4], PARK Jongsuk[4], RYU Minsang[4], WATSON Ian James[4], HA Seungkyu[1], EO Yun[1], KIM Minsoo[1], HWANG Kyuyeong[1] ([1]Department of Physics, Yonsei University, [2]Department of Physics, Kyungpook National University, [3]Department of Physics & Astronomy, Seoul National University, [4]Department of Physics, University of Seoul)

G2.07 [12:22 - 12:34]

The simulation of the dual-readout calorimeter for future collider experiments using Key4HEP common software framework / EO Yun[4], HA Seungkyu[4], HWANG Kyuyeong[4], KIM Bobae[1], KIM Doyeong[3], KIM Minsoo[4], KO Sanghyun*[2], LEE Junghyun[1], LEE Jason[3], PARK Jongsuk[3], LEE Sehwook[1], LEE Yunjae[3], RYU Minsang[3], WATSON Ian[3], YOO Hwidong[4] ([1]Department of Physics, Kyungpook National University, [2]Department of Physics and Astronomy, Seoul National University, [3]Department of Physics, University of Seoul, [4]Department of Physics, Yonsei University)

G2.08 [12:34 - 12:46]

Deep learning implementation for Dual-Readout calorimeter / LEE YunJae[1], LEE Jason Sang Hun*[1], YOO Hwidong[2], LEE Sehwook[3], KO Sanghyun[4], HWANG Kyuyoung[2], KIM Minsoo[2], EO Yan[2], KIM Bobae[3], LEE Junghyun[3], RYU Minsang[1], WATSON Ian James[1], KIM

Doyoung[1] ([1]Department of Physics, University of Seoul, [2]Department of Physics, Yonsei University, [3]Department of Physics, Kyungpook National University, [4]Department of Physics, Seoul National University)

G2.09 [12:46 - 12:58]

Simulation study on position and angular resolution of the dual-readout calorimeter / EO Yun[1], HA Seungkyu[1], HWANG Kyuyeong[1], KIM Bobae[2], KIM Doyeong[3], KIM Minsoo[1], KO Sanghyun[4], LEE Jason[3], LEE Junghyun[2], LEE Sehwook[2], LEE Yunjae[3], RYU Minsang[3], WATSON Ian[3], YOO Hwidong*[1] ([1]Department of Physics, Yonsei University, [2]Department of Physics, Kyungpook National University, [3]Department of Physics, University of Seoul, [4]Department of Physics & Astronomy, Seoul National University)

[G3-nu] Hadron physics & Nuclear Astrophysics

2020. 11. 06 Friday 11:10~12:34

Room: 03

좌장 : 안정근 고려대학교

Chair : AHN Jung Keun (Korea University)

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G3.01 [11:10 - 11:22]

Exclusive photoproduction of φ meson on ^{4}He / KIM Sangho*[1], NAM Seung-il[1], OH Yongseok[2], LEE T.-S. H.[3] ([1]Physics Department, Pukyong National University, [2]Physics Department, Kyungpook National University, [3]Physics Division, Argonne National Laboratory)

G3.02 [11:22 - 11:34]

Tribaryons in a constituent quark model / PARK Aaron*[1], LEE Su Houng[1] ([1]Department of Physics and Institute of Physics and Applied Physics, Yonsei University)

G3.03 [11:34 - 11:46]

Electromagnetic Form Factor Analysis in 1+1 Dimension: Light-front Dynamics vs. Instant Form Dynamics / OH Yongseok*[1], CHOI Yongwoo[1], CHOI Ho-Meoyng[2], JI Chueng-Ryong[3] ([1]Department of Physics, Kyungpook National University, [2]Department of Physics, Teachers College, Kyungpook National University, [3]Department of Physics, North Carolina State University)

G3.04 [11:46 - 11:58]

Rho-omega mixing and charge-symmetry breaking nuclear forces in chiral perturbation theory / PARK Tae-Sun*[1] ([1]CENS, IBS)

G3.05 [11:58 - 12:10]

Importance of precise mass measurements for ^{65}As and ^{66}Se / NGUYEN Duy Ngoc*[1], CHAE Kyung Yuk[1], NGUYEN Kim Uyen[1] ([1]Department of Physics, Sungkyunkwan University)

G3.06 [12:10 - 12:22]

The production of ^{53}Mn as a cosmochronometer by neutrino process in core-collapse supernova / KO Heamin[1], CHEOUN Myung Ki*[1] ([1]Department of Physics, Soongsil University)

G3.07 [12:22 - 12:34]

Dynamic screening effects on big bang nucleosynthesis / HWANG EunSeok[1], JANG Dukjae[2], CHEOUN Myung Ki*[1], PARK Kiwan[1] ([1]Department of Physics, Soongsil University, [2]Center for Relativistic Laser Science, IBS)

[G4-as] [E] [F] [APCTP-KPS-JPS Meeting] Current Topics in Astrophysics II

2020. 11. 06 Friday 11:10~12:46

Room: 04

좌장 : 김정리 이화여자대학교

Chair : KIM Chunglee (Ewha Womans University)

G4.01 [11:10 - 11:34]

Multimessenger astronomy in Japan: introduction of optical-infrared follow-up observation project / YOSHIDA Michitoshi*[1] ([1]Subaru Telescope National Astronomical Observatory of Japan)

G4.02 [11:34 - 11:58]

Gravitational Wave, Data Analysis, and Observations / LEE Hyung Won*[1], KIM Jeongcho[1], KIM Chunglee[2] ([1]Drone IoT Simulation School, Inje University, [2]Dept. of Physics, Ewha Womans University)

G4.03 [11:58 - 12:22]

Gravitational-wave EM Counterpart Korean Observatory, GECKO / IM Myungshin*[1], PAEK Gregory S. H.[1], KIM Joonho[1], HWANG Sungyong[1], CHOI Changsu[1], LEE Chung-Uk[2], KIM Seung-Lee[2], LEE Hyung Mok[1,2], SUNG Hyun-Il[2], JEONG Mankeun[1], YOON Yongmin[3], LEE Seong-Kook Joshua[1], GECKO Team[1,2,3] ([1]Dept. of Physics & Astronomy, Seoul National University, [2]Korea Astronomy and Space Science Institute, KASI, [3]Korea Institute for Advanced Study, KIAS)

G4.04 [12:22 - 12:46]

Multimessenger astronomy and the origin of heavy elements in the Universe / TANAKA Masaomi*[1] ([1]Tohoku University)

[G5-co] [E] [F] [APCTP-KPS-JPS Meeting] New trends in quantum and topological matters under extreme condition II

2020. 11. 06 Friday 11:10~12:46

Room: 05

Chair : **HIROYUKI Nojiri** IMR, Tohoku University

G5.01 [11:10 - 11:34]

Dirac fermions coupled with magnetic order and lattice polarization / SAKAI Hideaki*1 ([1]Department of Physics, Osaka University, Japan)

G5.02 [11:34 - 11:58]

ARPES study of a Multifold Fermionic Semimetal $PdSb_2$ / JEONG Jinwon[1], JU Woo-Ri[1], CHO En-Jin[1], NOH Han-Jin*1, KIM Kyoo[2] ([1]department of physics, Chonnam National University, [2]Department of Physics, Korea Atomic Energy Research Institute)

G5.03 [11:58 - 12:22]

Exotic nodal fermions in topological materials studied by ARPES / SATO Takafumi*1,2,3 ([1]WPI Research Center, Advanced Institute for Materials Research, Tohoku University, [2]Department of Physics, Tohoku University, [3]Center for Spintronics Research Network, Tohoku University)

G5.04 [12:22 - 12:46]

Extreme Nonlinear Meissner Effect in Superconductors / KIM Jae Hoon*1, LEE Ji Eun[1], CHOI Joonyoung[2], SIM Kyung Ik[2], JO Younjung[2] ([1]Department of Physics, Yonsei University, [2]Department of Physics, Kyungpook National University)

[G6-co] Nano-Meso/Surface-Interface II

2020. 11. 06 Friday 11:10~12:46

Room: 06

좌장 : 김근수 연세대학교

Chair : KIM Keun Su (Yonsei University)

G6.01 [11:10 - 11:22]

Computational Search for Two-dimensional Iodine-Monofluoride Epitaxially Grown on WSe_2 / LEE Sungwoo[1], LEE Gun-Do*1 ([1]Department of Materials Science and Engineering, Seoul National University)

G6.02 [11:22 - 11:34]

STM study of lattice dynamics in 1T' structure of bilayer VSe_2 / DUVJIR Ganbat[1], TSERMAA Baatarchuluun[2,3], CHOI Byoung Ki[4], JANG Kyuha[5], CHANG Young Jun[4], KIM Jungdae*1 ([1]Physics, University of Ulsan, [2]Department of Geology and Geophysics, School of Arts and Sciences, National University of Mongolia, [3]Institute of Photonics and Information

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Technology, Jeonbuk National University, [4]Department of Physics, University of Seoul, [5]Radiation Center for Ultrafast Science, Korea Atomic Energy Research Institute)

G6.03 [11:34 - 11:46]

Crystal structure identification of type-II red phosphorus / YOON Jun-Yeong[1], LEE Yangjin[1], OH Dong Gun[1], CHOE Jeongheon[1], KIM JinKyun[2], CHOI Young Jai[1], KIM Chae Un[2], MA Yanhang[3], KIM Kwanpyo*[1] ([1]Physics, Yonsei University, [2]Physics, UNIST, [3]School of Physical Science and Technology, ShanghaiTech University)

G6.04 [11:46 - 11:58]

First-principles study of metal-atom adsorption on black phosphorus / KIM Hangyu[1], CHOI Hyoung Joon*[1] ([1]Department of Physics, Yonsei University)

G6.05 [11:58 - 12:10]

Pseudospin Tunneling in Two-Dimensional Black Phosphorus Junctions / CHOI Young Woo[1], CHOI Hyoung Joon*[1] ([1]Department of Physics, Yonsei University)

G6.08 [12:10-12:22]

Studies of non-volatile single atom magnet using ESR-STM technique / SINGHA Aparajita[1,2], WILLKE Philip[1,2], ZHANG Xue[1,2], CHOI Taeyoung*[1,2] ([1]Department of Physics, Ewha Womans University, [2]Center for Quantum Nanoscience, IBS)

[G7-co] [F] Synchrotron x-ray studies for advanced electronic materials and quantum mechanical properties III

2020. 11. 06 Friday 11:10~12:22

Room: 07

좌장 : **류혜진** 한국과학기술연구원

Chair : RYU Hyejin (KAIST)

G7.01 [11:10 - 11:22]

X-ray holography based on a speckle-correlation scattering matrix / LEE KyeoReh*[1,3], LIM Jun[2], LEE Su Yong[2], PARK YongKeun*[1,3] ([1]Department of Physics, KAIST, [2]Pohang Accelerator Laboratory, POSTECH, [3]KAIST Institute for Health Science and Technology, KAIST)

G7.02 [11:22 - 11:34]

Comparative study of hard x-ray undulator beamline performance in 4GSR-Korea and PLS-II / CHO Byeong-Gwan*[1], KIM Yongsam[1], KOO Tae-Yeong[1] ([1]Beamline Division, Pohang Accelerator Laboratory)

G7.03 [11:34 - 11:46]

X-ray-induced photo-current of non-stoichiometric Ga_2O_{3-X} Thin Films grown by powder sputtering method / CHOI Sukjune[2], OH Ho Jun[2], HA Sung Soo[3], HAM Daseul[4], CHA Su Yeon[1], LEE Su Yong[4], NOH Do Young*[2], KANG Hyon Chol*[1] ([1]Department of Ma-

terials Science and Engineering, Chosun University, [2]Department of Physics and Photon Science, GIST, [3]School of Materials Science and Engineering, GIST, [4]Pohang Accelerator Laboratory, POSTECH)

G7.04 [11:46 - 11:58]

In situ heating X-ray diffraction of VO_2 $(020)_{M1}$ & $(011)_{M1}$ on $Al_2O_3(006)$ analyzed with 3D reciprocal space map(RSM). / OH Ho Jun[1], NOH Do Young[2], KANG Hyon Chol[*1], HA Sung Soo[1], YOON Young Min[1], CHOI Seok Jun[1], KWON Oh Young[1], KIM Jin Woo[3] ([1]Department of Physics and Photon Science (DPH), GIST, [2]Department of Materials Science and Engineering, Chosun University, [3]5D beamline, Pohang Accelerator Laboratory)

G7.05 [11:58 - 12:10]

V_2O_3 tetrahedron grown on sapphire (0001) substrates using thermal chemical vapor deposition method under hydrogen-reducing atmosphere / KANG Sae Hyun[1], NOH Do Young[*1], KANG Hyon Chol[*2] ([1]Department of Physics and Photon Science, Gwangju Institute of Science and Technology, [2]Department of Materials Science and Engineering, Chosun University)

G7.06 [12:10 - 12:22]

Feedforward compensation for hysteresis and dynamic behaviors of a high-speed atomic force microscope scanner / OTIENO Luke Oduor[1], LEE Yong Joong[*1] ([1]School of Mechanical Engineering, Kyungpook National University)

[G8-co] Condensed Matter Computational Physics II

2020. 11. 06 Friday 11:10~12:34

Room: 08

좌장 : 한명준 한국과학기술원

Chair : HAN Myungjoon (KAIST)

G8.01 [11:10 - 11:22]

Hybrid density functional theory calculation for high-throughput studies / PARK Ji-Sang[*1] ([1]Physics, Kyungpook National University)

G8.02 [11:22 - 11:34]

Stabilization of metastable TiS_2 via alloying / LEE Jaekwang[*1], NGUYEN Phuong Lien[1] ([1]Pusan National University)

G8.03 [11:34 - 11:46]

High-harmonic spectroscopy in 3D topological insulators / BAYKUSHEVA Denitsa[2], CHACON Alexis[1,3,6], LU Jian[2], BAILEY Trevor P.[4], SOBOTA Jonathan A.[5], SOIFER Hadas[5], KIRCHMANN Patrick S.[5], ROTUNDU Costel R.[5], UHER Ctirad[4], HEINZ Tony F.[2], KIM Dong Eon[*1,6], REIS David A[2], GHIMIRE Shambhu[2] ([1]Physics Department, POSTECH, [2]Stanford PULSE Institute, SLAC national accelerator Laboratory, [3]Center for Nonlinear Studies and Theoreti-

cal Division, Los Alamos National Laboratory, [4]Department of Physics, University of Michigan, [5]Stanford Institute for Materials and Energy Sciences, SLAC National Accelerator Laboratory, [6]Max Planck Center for Attosecond Science, Max Planck POSTECH/KOREA Res. Init.)

G8.04 [11:46 - 11:58]
Spin and charge correlations across the metal-to-insulator crossover in the half-filled 2D Hubbard model / KIM Aaram J.*[1], SIMKOVIC Fedor[1,2], KOZIK Evgeny[1] ([1]Department of Physics, King's College London, [2]Centre de Physique Theorique, Ecole Polytechnique)

G8.05 [11:58 - 12:10]
Atomistic study of the interfacial oxide layer effect on the stabilization of orthorhombic HfO_2 / BYUN Jinho[1], LEE Joonbong[2], JIN Yeongrok[1], CHOI Taekjib[2], LEE Jaekwang*[1] ([1]Pusan National University, [2]Hybrid Materials Research Center and Department of Nanotechnology and Advanced Materials Engineering, Sejong University)

G8.06 [12:10 - 12:22]
Variaitonal Quantum-Classical Simlulations for Quantum Phase Transitions of Spin Chains / KIM Donggyu[1], LEE Hyunyong[2], MOON Eun-Gook*[1] ([1]physics, KAIST, [2]applied physics, Korea University)

G8.07 [12:22 - 12:34]
Circular dichroism in high-order harmonic generation: Heralding topological phases and transitions in Chern insulators / CHACóN Alexis[1,2],KIM Dasol[1], ZHU Wei[2], KELLY Shane Patrick[2,3], DAUPHIN Alexandre[4], PISANTY Emilio[4], MAXWELL Andrew S.[4,5], PICóN Antonio[4,6], CIAPPINA Marcelo F.[4,7], KIM Dong Eon*[1], TICKNOR Christopher[2], SAXENA Avadh[2], LEWENSTEIN Maciej[4] ([1]Physics Department, POSTECH, [2]Center for Nonlinear Studies and Theoretical Division, Los Alamos National Laboratory, [3]Physics and Astronomy Department, University of California Riverside, [4]ICFO, The Barcelona Institute of Science and Technology, [5]Department of Physics & Astronomy, University College London, [6]Departamento de Qu ı mica, Universidad Autonoma de Madrid, [7]Institute of Physics of the ASCR, ELI-Beamlines project)

[G9-ap] [F] The 100th anniversary of ferroelectricity : achievement and future I

2020. 11. 06 Friday 11:10~12:46

Room: 09

좌장 : **박성균** 부산대학교

Chair : PARK Sungkyun (Pusan National University)

G9.01 [11:10 - 11:34]
Principles and Laws in Ferroelectricity / RAHMAN Mokhlesur[1], LEE Jaichan*[1] ([1]School of Advanced Materials Science and Engineering, Sungkyunkwan University)

G9.02 [11:34 - 11:58]
Nanogenerators for energy harvesting based on piezoelectric nanostructures / BU Sang-Don*[1] ([1]Department of Physics, Jeonbuk National University)

G9.03 [11:58 - 12:22]
Flexo-electronics: achievement and future / LEE Daesu*[1] ([1]Department of Physics, POSTECH)

G9.04 [12:22 - 12:46]
Can the negative capacitance of ferroelectrics be useful? / PARK Hyeon Woo[1], HWANG Cheol Seong*[1] ([1]Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University)

[G10-ap] 2D materials II
2020. 11. 06 Friday 11:10~12:46
Room: 10
좌장 : 양희준 성균관대학교
Chair : YANG Heejun (Sungkyunkwan University)

G10.01 [11:10 - 11:22]
Epitaxial Growth of Single-Crystalline Metal Films on Black Phosphorus / LEE Yang-jin[1,2], KIM Han-gyu[1], YUN Tae Keun[1], KIM Jong Chan[3], LEE Sol[1,2], YANG Sung Jin[1], JANG Myeongjin[1,2], KIM Donggyu[1], RYU Huije[4], LEE Gwan-Hyoung[4,5], IM Seongil[1], JEONG Hu Young[3,6], CHOI Hyoung Joon[1], KIM Kwanpyo*[1,2] ([1]Physics, Yonsei University, [2]Center for Nanomedicine, Institute for Basic Science, [3]School of Materials Science and Engineering, UNIST, [4]Materials Science and Engineering, Seoul National University, [5]Research Institute of Advanced Materials (RIAM), Institute of Engineering Research, Institute of Applied Physics, Seoul National University, [6]UNIST Central Research Facilities, UNIST)

G10.02 [11:22 - 11:34]
Nonvolatile tuning of the spin-orbit coupling in graphene by a ferroelectric dipole / JO Young Hun*[1], PARK Jungmin[1], CHOI Jeonghyeon[3], OH Inseon[3], LEE Ah-Yeon[2], AHN Chang-Won[4], KOO Seulgi[5], YOO Jung-Woo[3] ([1]Center for Scientific Instrumentation, KBSI, [2]Center for Research Equipment, KBSI, [3]School of Materials Science and Engineering, UNIST, [4]Department of Physics , University of Ulsan, [5]Department of Research , RNDWARE Co., Ltd)

G10.03 [11:34 - 11:46]
High thermoelectric performance of two-dimensional α-GeTe bilayer / HONG Ji Sang *[1], MARFOUA Brahim[1] ([1]Physics, Pukyong National University)

G10.05 [11:46 - 11:58]
Out of plane growth of Bi_2O_2Se thin film for constructing functional van der Waals

heterostructures / HONG Chengyun[2,1,3], LIU Xiaolong3, KIM Ji-Hee*[2,1] ([1]Center for Integrated Nanostructure Physicsol of New Energy, Institute for Basic Science, [2]Department of Energy Science, Sungkyunkwan University, [3]School of New Energy, North China Electric Power University)

G10.06 [11:58 - 12:10]

Mass prediction of materials using artificial intelligence in noisy environment / SEO Miri[1], YANG Eun-Seo[2], LEE Sang-Wook*[1] ([1]Department of Physics, Ewha Womans University, [2]Department of Computer Engineering, Ewha Womans University)

G10.07 [12:10 - 12:22]

Valley acoustoelectric effect in two dimensional Dirac materials exposed to Rayleigh surface acoustic waves. / SONOWAL Kabyashree*[1,4], KALAMEITSEV A.V[2], KOVALEV Vadim[2,3], SAVENKO Ivan[1,4] ([1]Theoretical physics of complex systems, IBS, [2]Physics, Rzhanov Institute of Semiconductor Physics,Russia, [3]Physics, Novosibirsk State Technical University, Russia, [4]Basic Science, UST)

G10.08 [12:22 - 12:34]

Improving shielding effectiveness by designing of multiple porous thin metal layers at X-band frequency wave. / KWON Jisung[1], KIM Myung Ki*[1] ([1]Korea University)

[G11] No session

[G12-st] Granular systems, Soft matters, and biophysics

2020. 11. 06 Friday 11:10~12:46

Room: 12

좌장 : 이남경 세종대학교

Chair : LEE Nam Kyung (Sejong University)

G12.01 [11:10 - 11:22]

Layering Transition and Novel Topological Defects of Chiral Nematic Liquid Crystals Confined in a Cylinder / EUN Jonghee[1], KIM Sung-Jo[1], JEONG Joonwoo*[1] ([1]Physics, UNIST)

G12.02 [11:22 - 11:34]

Solvent Isotopic Effect on the Phase Transition of Lyotropic Chromonic Liquid Crystals: Possible Roles of Electrostatic Interactions / CHEON Jiyong[1], JEONG Joonwoo*[1] ([1]Physics, UNIST)

G12.03 [11:34 - 11:46]

Pair Potential between Topological Defects of Spontaneously Twisted Liquid Crystals in a Cylindrical Cavity / ALMUKAMBETOVA Madina[1], JAVADI Arman[1], EUN Jonghee[1], JEONG Joonwoo[*1] ([1]Physics, UNIST)

G12.04 [11:46 - 11:58]

Diabetes prediction with KoGES data using Machine Learning / KIM Young Jin[1], SONG Harksoo[1], KANG Hyuk[*1], KIM Sang Soo[2,3], KIM Jeong Mi[2,3], JANG Min Hee[2,3], YI Wook[2,3], RYANG Soree[2,3], KIM Minsoo[2,3], KIM In Joo[2,3], KIM Jinmi[4] ([1]NIMS, [2]Division of Endocrinology and Metabolism, Department of Internal Medicine, Pusan National University Hospital, [3]Biomedical Research Institute, Pusan National University Hospital, [4]Department of Biostatistics, Clinical Trial Center, Biomedical Research Institute, Pusan National University Hospital)

G12.05 [11:58 - 12:10]

Effect of various recoding of granule cells on Pavlovian eyeblink conditioning in a cerebellar network / KIM Sang-Yoon[1], LIM Woochang[*1] ([1]Daegu National University Of Education)

G12.06 [12:10 - 12:22]

Human blood glucose modulation via insulin secretion adjustment / KANG Hyuk[*1], YOO Minha[1], KIM Jong-Ho[1], KIM Sang Soo[2,3], KIM Jeong Mi[2,3], JANG Min Hee[2,3], YI Wook[2,3], RYANG Soree[2,3], KIM Minsoo[2], KIM In Joo[2,3], KIM Jinmi[4] ([1]NIMS, [2]Division of Endocrinology and Metabolism, Department of Internal Medicine, Pusan National University Hospital, [3]Biomedical Research Institute, Pusan National University Hospital, [4]Department of Biostatistics, Clinical Trial Center, Biomedical Research Institute, Pusan National University Hospital)

G12.07 [12:22 - 12:34]

Two kinds of stochastic resonance in an ecological community / PARK Jong Il[*1], KIM Beom Jun[1], PARK Hye Jin[2] ([1]Department of Physics, Sungkyunkwan University, [2]Statistical physics of ecology and evolution group, APCTP)

G12.08 [12:34 - 12:46]

Competition between cells in a hierarchical tissue can suppress the accumulation of mutations / PARK Hye Jin[*1], ZHOU Da[2], TRAULSEN Arne[3] ([1]APCTP, [2]School of Mathematical Sciences, Xiamen University, [3]Department of Evolutionary Theory, Max Planck Institute for Evolutionary Biology)

[G13-te] [F] Changes in physics education due to IT technology

2020. 11. 06 Friday 11:10~12:10

Room: 13

좌장 : 정용욱 경상대학교

Chair : CHEONG Yong Wook (Gyeongsang National University)

G13.01 [11:10 - 11:22]

IT 융합과 STEM 기반 물리교육의 확대 / OH Won Kun*1 ([1]Dept. Physics Education, Chungbuk National University)

G13.02 [11:22 - 11:46]

마이크로비트를 이용한 무센센서네트워크 구축 및 과학탐구활동에의 활용방안 탐색 / CHEONG Yong Wook*1 ([1]physics education, Gyeongsang National University)

G13.03 [11:46 - 12:10]

가상/증강 현실을 활용한 교육의 현황과 성과 / JHO Hunkoog*1 ([1]Graduate school of education, Dankook University)

[G14-pl] [F] Symposium for the Basic Fusion R&D Program II

2020. 11. 06 Friday 11:10~12:22

Room: 14

좌장 : 최원호 한국과학기술원

Chair : CHOE Wonho (KAIST)

G14.01 [11:10 - 11:46]

MHD-stabilized reactor-relevant fusion plasmas (with full integration of edge, divertor and core) / IN Yongkyoon*1, YUN Gunsu S[2], YOON Eisung[3], KIM Kang-wook[4] ([1]Physics Department, UNIST, [2]Physics Department, POSTECH, [3]Nuclear Engineering Department, UNIST, [4]Electronics Engineering Department, Kyungpook National University)

G14.02 [11:46 - 12:22]

핵융합 재료-플라즈마 반응 연구센터 소개 (Center for Interaction of Materials with Plasmas: cimpl) / CHUNG Kyu-Sun[1], LEE MyungJae[2], JUNG YoungDae[2], KIM Jaeyong[2], CHUNG Bohyun[3], PARK Insun*1, KIM Gon-Ho[4], SHIM HyungJin[4], NAM JunSeok[5], RHO Ki-Baek[4] ([1]Department of electrical engineering, Hanyang University, [2]Department of Physics, Hanyang University, [3]Physico Technology Laboratory, Korea Accelerator and Plasma Research Assoiation, [4]Department of Nuclear Engineering, Seoul National University, [5]Department of Quantum System Engineering, Jeonbuk National University)

[G15-op] [F] Special approaches in integrated photonics II

2020. 11. 06 Friday 11:10~12:22

Room: 15

좌장 : 한상윤 대구경북과학기술원

Chair : HAN Sangyoon (DGIST)

G15.01 [11:10 - 11:34]

Mechano-optic devices for large-scale photonic integration / HAN Sangyoon*1 ([1]Robotics Engineering, DGIST)

G15.02 [11:34 - 11:58]

Monolithic integration of efficient InAs quantum dot laser onto Si by direct epitaxy / JUNG Daehwan*1 ([1]Korea Institute of Science and Technology (KIST))

G15.03 [11:58 - 12:22]

Extreme nanophotonics based on surface polaritons in 2D materials / LEE In-Ho*1 ([1]Korea Institute of Science and Technology (KIST))

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[G16-at] Atomic, Molecular and Optical Physics II

2020. 11. 06 Friday 11:10~12:34

Room: 16

좌장 : 안재욱 한국과학기술원

Chair : AHN Jaewook (KAIST)

G16.01 [11:10 - 11:22]

광통신 대역에 맞는 광자 생성을 위한 사광파 혼합 / MOON Han Seb*1, JEONG Han Sol[1], PARK Jiho[1] ([1]Pusan National University)

G16.02 [11:22 - 11:34]

마이크로 세슘 증기 셀에서 사광파조합 / MOON Han Seb*1, PARK JiHo[1], HWANG Jong Min[1], KIM HeeWoo[1] ([1]Pusan National University)

G16.03 [11:34 - 11:46]

Simulation and fabrication of a linear Paul trap with segmented blades(분할된 날을 이용한 선형 폴 이온트랩의 개발) / HONG JungSoo[1], KIM Myunghun[1], SEO Taehyun[1], LEE Dowon[1], LEE Moonjoo*1 ([1]Electric Engineering, POSTECH)

G16.04 [11:46 - 11:58]

Genuinely tripartite Bell inequality using a quasi-distance / LEE Daemin[1], RYU Junghee[2,3], KURZYŃSKI Paweł[3,4], KASZLIKOWSKI Dagomir[3,5], LEE Jinhyoung*1 ([1]Physics, Hanyang University, [2]National Institute of Supercomputing Division, Korea Institute of Science and Technology Information, [3]Centre for Quantum Technologies, National University of Sin-

gapore, [4]Faculty of Physics, Adam Mickiewicz University, [5]Department of Physics, National University of Singapore)

G16.05 [11:58 - 12:10]
Rydberg-atom quantum simulator measures quantum-Ising eigenspectra of non-isomorphic graphs of up to six qubits / KIM Minhyuk[1], SONG Yunheung[1], KIM Jaewan[2], AHN Jaewook*[1] ([1]Physics, KAIST, [2]Physics, Myongji University)

G16.06 [12:10 - 12:22]
Development of asymmetric optical cavity in strong atom-cavity coupling regime 원자-공진기 강결합 영역에서 비대칭 공진기의 개발 / LEE Dowon*[1], KIM Myunghun[1], HONG JungSoo[1], SEO Taehyun[1], LEE Moonjoo[1] ([1]Electrical Engineering, POSTECH)

G16.07 [12:22 - 12:34]
원자 앙상블을 이용한 4-광자 Greenberger-Horne-Zeilinger(GHZ) 상태 구현과 특성 분석 / MOON Han Seb*[1], PARK Jiho[1] ([1]Pusan National University)

[G17-se] [F] Nano-optical characterizations of semiconducting materials II
2020. 11. 06 Friday 11:10~12:22
Room: 17
좌장 : **박경덕** 울산과학기술원
Chair : PARK Kyoung-Duck (UNIST)

G17.01 [11:10 - 11:34]
Nanoscale Hyperspectral Mapping by using Photo-induced Force Microscopy / JAHNG Junghoon*[1] ([1]Hyperspectral Nano-imaging Lab, Korea Research Institute of Standards and Science (KRISS))

G17.02 [11:34 - 11:58]
THz near-field spectroscopy of single coaxial aperture / KIM Teun-Teun*[1] ([1]Physics, University of Ulsan)

G17.03 [11:58 - 12:22]
Investigation of Chemical Origin of White-Light Emission in Two-Dimensional $(C_4H_9NH_3)_2PbBr_4$ via Infrared Nanoscopy / PARK Dae Young[1], AN Sung-Jin[1], JEONG Mun Seok*[1] ([1]Department of Energy Science, Sungkyunkwan University)

[G18-se] Semiconductor growth, transport & optical properties

2020. 11. 06 Friday 11:10~12:34

Room: 18

좌장 : 김광석 부산대학교

Chair : KYHM kwangseuk (Pusan National University)

G18.01 [11:10 - 11:22]

이중 페로브스카이트 Mn^{4+} 첨가된 Ba_2YTaO_6 형광체의 합성 및 특성 / HARISHKUMARREDDY Patnam[2], YU Jae Su*[1,2] ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Engineering, Kyung Hee University)

G18.02 [11:22 - 11:34]

Drain Induced Fermi Energy Shift in ReS_2 Multilayers / JOO Min-Kyu*[1], KIM Soo Yeon[1] ([1]Department of Applied Physics, Sookmyung Women's University)

G18.03 [11:34 - 11:46]

Coherent polarizaion of micro-photoluminescence in an anisotropic single quantum ring / KIM Minju[2], KYHM Kwangseuk*[1,2] ([1]Pusan National University, [2]cogno-mechatronics engineering, Pusan National University)

G18.04 [11:46 - 11:58]

InAs/AlSb 초격자 구조의 광학적 특성 연구 / KIM Jong Su*[1], KIM Sung yeop[1], JO Hyun-Jun[1], LEE SeungHyun[2], KRISHNA Sanjay[2], LEE Sang Jun[3] ([1]Yeungnam University, [2]Department of Physics, The Ohio State University, [3]Micro & Smart Devices Team, KRISS)

G18.05 [11:58 - 12:10]

The optical properties of PIN-AlGaAsSb Random alloy and Digital alloy on InP by Photoluminescence and Photoreflectance Spectroscopy / KIM Jong Su*[1], HA Jae Du[1], JO Hyun-Jun[1], LEE Seung Hyun[2], KRISHNA Sanjay[2], LEE Sang Jun[3] ([1]Yeungnam University, [2]Department of Electrical and Computer Engineering, The Ohio State University, [3]Micro & Smart Device Team, KRISS)

G18.06 [12:10 - 12:22]

Evaluation of the electric field of $In_{0.25}Ga_{0.75}As_{0.3}Sb_{0.7}$ nBn detector by using the photoreflectance spectroscopy. / KIM Jong Su*[1], SAEID NAHAEI Sanam[1], JO Hyun Jun[1], KWAK Minsoo[1], MORE Vivek mohan[2], LEE Sang Jun[2] ([1]Yeungnam University, [2]Physics department, Korea Research Institute of Standards and Science,Daejeon)

G18.07 [12:22 - 12:34]

Improving the optical properties of droplet-epitaxy-grown GaAs/AlGaAs quantum dots by thermal annealing / KIM Jong Su*[2], SEO Youryang[2,3], JO Hyeonjun[4], KIM Yeongho[3] ([1]Yeungnam University, [2]Department of Physics, Yeungnam University, [3]Micro & Smart Device, KRISS, [4]Department of Physics, Yeungnam University)

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[G19-bp] [F] Frontiers in Computational Biophysics

2020. 11. 06 Friday 11:10~12:46

Room: 19

좌장 : **전재형** 포항공과대학교

Chair : JEON Jae-Hyung (POSTECH)

G19.01 [11:10 - 11:34]

The packaging process of a DNA into a viral capsid determines how the DNA exits the capsid / SUNG Bong June*1 ([1]Department of Chemistry, Sogang University)

G19.02 [11:34 - 11:58]

Super-accuracy molecular dynamics simulations of proteins / YOO Jejoong*1 ([1]Sungkyunkwan University)

G19.03 [11:58 - 12:22]

New trends in computational biophysics / WU Sangwook*1,2 ([1]Department of Physics, Pukyong National University, [2]R & D center, PharmCADD)

G19.04 [12:22 - 12:46]

θ-chain in confined space and its implication to biopolymers / HYEON Chang Bong*1 ([1]KIAS)

Session H

2020 November 6(Fri) 15:00~16:48

[H1-pa] Non-accelerator III

2020. 11. 06 Friday 15:00~16:36

Room: 01

좌장 : 서선희 기초과학연구원

Chair : SEO Seon Hee (IBS)

H1.01 [15:00 - 15:12]

Development of low threshold detector to search for light dark matter / KIM Yong-Hamb[*1,2], KWON Dohyung[1,2], KIM Hyelim[1], KIM Sora[1], LEE Hyejin[1], JEON Jin-A[1], KIM Sang Goon[1], WOO GyungRae[1,2], KIM Hanbeom[1], LEE YongChang[1] ([1]Center for Underground Physics, IBS, [2]Basic Science, UST)

H1.02 [15:12 - 15:24]

Background modeling and Threshold study for Neutrino Elastic-scattering Observation with NaI(Tl)(NEON) experiment / PARK ByungJu[*1,2] ([1]Center for Underground Physics, IBS, [2]IBS school, UST)

H1.03 [15:24 - 15:36]

NaI(Tl) temperature-dependent responses measurement at -35℃ / LEE Seo Hyun[*1] ([1]Basic Science, UST)

H1.04 [15:36 - 15:48]

Improved intensities for the gamma transitions with Eγ〉 3 MeV from 208Tl decay / KIM Yeongduk[*1,6,8], KIM Gowoon[1], LEONARD Douglas[1], HAHN Insik[2,3], KANG Woongu[1], KAZALOV Vladimir[7], LEE Eunkyung[1], PARK Suyeon[1,4] ([1]IBS Center for Underground Physics, IBS, [2]IBS Center for Exotic Nuclear Studies, Institute for Basic Science (IBS), [3]Science Education, Ewha Womans University, [4]Physics, Ewha Wmans University, [5]IBS School, University of Science and Technology (UST), [6]Physics and Astronomy, Sejong University, [7]Baksan Neutrino Observatory, Institute for Nuclear Research of the Russian Academy of Science, [8]IBS School, University of Science and Technology (UST))

H1.05 [15:48 - 16:00]

Measurement of cosmogenic Li/He production rate at RENO / KIM Soo-Bong[*5], KIM Wooyoung[2], PAC Myoung Youl[3], CHOI Juneho[3], JANG Hanil[4], KWON Eunhyang[5], KIM Sang Yong[1], SEO Hyunkwan[1], LEE Hyungi[1], KIM Jonggun[5], SEO Jiwoong[5], YU Intae[5], JEON Sanghoon[5], JUNG Daeun[5] ([1]Seoul National University, [2]Department of Physics, Kyungpook National University, [3]Department of Radiology, Dongshin University, [4]Department of Fire

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Safety, Seoyeong Univsersity, [5]Department of Physics, Sungkyunkwan University)

H1.06 [16:00 - 16:12]

Updated RENO results on reactor antineutrino oscillation amplitude and frequency / KIM Soo-Bong*[2], KIM Wooyoung[3], PAC Myoung Youl[5], CHOI Juneho[5], JANG Hanil[4], KWON Eunhyang[2], KIM Sang yong[1], SEO Hyunkwan[1], LEE Hyungi[1], KIM Jonggun[2], SEO Jiwoong[2], YU Intae[2], JEON Sanghoon[2], JUNG Daeun[2], KIM Jaeyool[8], MOON Dongho[8], SHIN Changdong[8], JOO Kyungkwang[8], JOHAAIB Atif[8], LIM Intaek[8], JANG Jeeseung[6], YOO Jonghee[7], YOON Seok-Gyeong[7] ([1]Seoul National University, [2]Department of Physics, Sungkyunkwan University, [3]Department of Physics, Kyungpook National University, [4]Department of Fire Safety, Seoyeong Univsersity, [5]Department of Radiology, Dongshin University, [6]Department of Physics, GIST, [7]Department of Physics, KAIST, [8]Department of Physics, Chonnam National University)

H1.07 [16:12 - 16:24]

Measurement of reactor neutrino flux and spectrum at RENO / YOON Seok-Gyeong[1], YOO Jonghee*[1], YANG Byeongsu[1], JANG Jeeseung[2], LIM Intaek[4], KIM Baro[3], JOO Kyungkwang[3], KIM Jaeyool[3], MOON Dongho[3], JOHAAIB Atif[3], SHIN Changdong[3], KIM Soo-Bong[5], YU Intae[5], KWON Eunhyang[5], JUNG Daeun[5], SEO Jiwoong[5], JEON Sanghoon[5], KIM Jonggun[5], KIM Sangyong[6], SEO Hyunkwan[6], LEE Hyungi[6], JANG Hanil[7], PARK Myoung-Youl[8], CHOI Juneho[8], KIM Wooyoung[9] ([1]Physics, KAIST, [2]GIST College, GIST, [3]Department of Physics, Chonnam National University, [4]Department of Physics Education, Chonnam National University, [5]Department of Physics, Sungkyunkwan University, [6]Department of Physics and Astronomy, Seoul National University, [7]Department of Fire Safety, Seoyeong Univsersity, [8]Department of Radiology, Dongshin University, [9]Department of Physics, Kyungpook National University)

H1.08 [16:24 - 16:36]

Study of accidental background using machine learning at RENO / KWON Eun Hyang*[1], KIM Wooyoung[2], PAC Myoungyul[3], CHOI Junho[3], JANG Hanil[4], KIM Sangyong[5], SEO Hyunkwan[5], LEE Hyungi[5], KIM Soobong[1], KIM Jonggeon[1], SEO Jiwoong[1], YU Intae[1], JEON Sanghoon[1], JUNG Daeun[1], KIM Baro[6], KIM Jaeyool[6], MOON Dongho[6], SHIN Changdong[6], LIM Intaek[6], JOO Kyungkwang[6], ZOHAIB Atif[6], JANG Jeeseung[7], YOO Jonghee[8], YANG Byeongsu[8], YOUN Seokkyoung[8] ([1]Department of Physics, Sungkyunkwan University, [2]Department of Physics, Kyungpook National University, [3]Department of Physics, Dongshin University, [4]Department of Physics, Seoyeong Univsersity, [5]Department of Physics, Seoul National University, [6]Department of Physics, Chonnam National University, [7]Department of Physics, GIST, [8]Department of Physics, KAIST)

[H2-pa] Accelerator V

2020. 11. 06 Friday 15:00~17:12

Room: 02

좌장 : **하창현** 중앙대학교

Chair : HA Chang Hyon (Chung-ang University)

H2.01 [15:00 - 15:12]

Current status of JSNS^2 experiment / PARK Jungsic*[1], KIM E. J.[2], KIM J. Y.[3], LIM I. T.[3], JOO K. K.[3], MOON D. H.[3], SHIN C. D.[3], ZOHAIB A.[3], JANG M. C.[3], CHOI J. W.[3], CHOI J. H.[4], PAC M. Y.[4], JANG H. I.[5], YEO I. S.[5], JANG J. S.[6], KIM W.[7], KIM S. B.[8], YU I. T.[8], ROTT C.[8], JEON H.[8], JEON S.[8], JUNG D. E.[8], ROEIILINGHOFF G.[8], GOH J. H.[9], YU C.[9], LEE S.[9], KANG S. K.[10], CHEOUN M. K.[11] ([1]Institute of Particle and Nuclear Studies, High Energy Accelerator Research Organization, KEK, [2]Division of Science Education, Physics major, Jeonbuk National University, [3]Department of Physics, Chonnam National University, [4]Department of Radiology, Dongshin University, [5]Department of Fire Safety, Seoyeong University, [6]Division of liberal art and science, GIST, [7]Department of Physics, Kyungpook National University, [8]Department of Physics, Sungkyunkwan University, [9]Department of Physics, Kyung Hee University, [10]School of Liberal Arts, Seoul National University of Science and Technology, [11]Department of Physics, Soongsil University)

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H2.02 [15:12 - 15:24]

Background study status of JSNS^2 experiment / LEE Dong Ha*[1], KIM E. J.[2], KIM J. Y.[3], LIM I. T.[3], JOO K. K.[3], MOON D. H.[3], SHIN C. D.[3], ZOHAIB A.[3], JANG M. C.[3], CHOI J. W.[3], CHOI J. H.[4], PAC M. Y.[4], JANG H. I.[5], YEO I. S.[5], JANG J. S.[6], KIM W.[7], KIM S. B.[8], YU I. T.[8], ROTT C.[8], JEON H.[8], JEON S.[8], JUNG D. E.[8], ROEIILINGHOFF G.[8], GOH J. H.[9], YU C.[9], LEE S.[9], KANG S. K.[10], CHEOUN M. K.[11] ([1]Institute of Particle and Nuclear Studies, KEK, [2]Division of Science Education, Jeonbuk National University, [3]Department of Physics, Chonnam National University, [4]Department of Radiology, Dongshin University, [5]Department of Fire Safety, Seoyeong University, [6]Division of liberal art and science, GIST, [7]Department of Physics, Kyungpook National University, [8]Department of Physics, Sungkyunkwan University, [9]Department of Physics, Kyung Hee University, [10]School of Liberal Arts, Seoul National University of Science and Technology, [11]Department of Physics, Soongsil University)

H2.03 [15:24 - 15:36]

The slow control and monitor system of JSNS^2 Experiment / CHOI June Ho*[1], PAC M. Y.[1], KIM E. J.[2], KIM J. Y.[3], LIM I. T.[3], JOO K. K.[3], MOON D. H.[3], SHIN C. D.[3], ATIF Zohaib[3], JANG M. C.[3], CHOI J. W.[3], JANG H. I.[4], YEO I. S.[4], JANG J. S.[5], KIM W.[6], KIM S. B.[7], YU I. T.[7], ROTT C.[7], JEON H.[7], JEON S.[7], JUNG D. E.[7], ROEIILINGHOFF G.[7], GOH J. H.[8], YU C.[8], LEE S.[8], KANG S. K.[9], CHEOUN M. K.[10] ([1]Dongshin University, [2]Division of Science Education, Jeonbuk National University, [3]Department of Physics, Chonnam National University, [4]Department of Fire Safety, Seoyeong Univsersity, [5]Division of liberal art and science, GIST, [6]Department of Physics, Kyungpook National University, [7]Department of Physics, Sungkyunkwan University, [8]Department of Physics, Kyung Hee University, [9]School of Liberal Arts, Seoul National University of Science and Technology, [10]Department of Physics, Soongsil University)

H2.04 [15:36 - 15:48]

PSD study of Gd-loaded liquid scintillator with DIN / SHIN Chang Dong*[1], KIM J. Y.[1], LIM I. T.[1], JOO K. K.[1], MOON D. H.[1], ATIF Zohaib[1], JANG M. C.[1], CHOI J. W.[1], KIM E. J.[2], CHOI J. H.[3], PAC M. Y.[3], JANG H. I.[4], YEO I. S.[4], JANG J. S.[5], KIM W.[6], KIM S. B.[7], YU I. T.[7], ROTT C.[7], JEON H.[7], JEON S.[7], JUNG D. E.[7], ROEIILINGHOFF G.[7], GOH J. H.[8], YU C.[8], LEE S.[8], KANG S. K.[9], CHEOUN M. K.[10] ([1]Chonnam National University, [2]Division of Science Education, Jeonbuk National University, [3]Department of Radiology, Dongshin University, [4]Department of Fire Safety, Seoyeong Univsersity, [5]Division of liberal art and science, GIST, [6]Department of Physics, Kyungpook National University, [7]Department of Physics, Sungkyunkwan University, [8]Department of Physics, Kyung Hee University, [9]School of Liberal Arts, Seoul National University, [10]Department of Physics, Soongsil University)

H2.05 [15:48 - 16:00]

Progress and plans of DUNE / CHEON Yoolim[5], CHO Kihyeon[3], CHUNG Moses[5], GWON Sunwoo[1], HA Changhyon[1], KWAK Donghyun[5], LEE Soo Yeon[2], SHIN Seodong[2], SIYEON Kim*[1], YOON Young-Soo[4], MOON Seok Ho[5] ([1]Physics, Chung-Ang University, [2]Physics, Jeonbuk National University, [3]High-Energy Physics, KISTI, [4]Center for Ionizing Radiation, KRISS, [5]Physics, UNIST)

H2.06 [16:00 - 16:12]

The DUNE Near Detector / HA Chang Hyon*[1] ([1]Department of Physics, Chung-Ang University)

H2.07 [16:12 - 16:24]

Neutron detection of 3DST in the DUNE near detector / GWON Sunwoo*[1] ([1]Physics, Chung-Ang University)

H2.08 [16:24 - 16:36]

Search for sub-millicharged particles at J-PARC / YOO Jae Hyeok*[1], KIM Jeong Hwa[1] ([1]Physics, Korea University)

H2.09 [16:36 - 16:48]

Data analysis on axion EDM experiment at COSY / SEMERTZIDIS Yannis Kyriakos*[1,2], CHANG Seungpyo[1] ([1]Physics, KAIST, [2]CAPP, IBS)

H2.10 [16:48 - 17:00]

The status of the GBAR experiment / KIM Bongho*[1], CHOI Jaejin[1], CHUNG Moses[3], KIM Eunsan[2], KIM Sunkee[1], KO Youngju[4], LEE Byungchan[1], LEE Hobin[1], LEE Jaison[4], IM Eunhoon[2], PARK Kwanhyung[1], WON Donghwan[1], YOO Kyounghoon[3] ([1]department of physics and astronomy, Seoul National University, [2]department of accelerator science, Korea University, [3]department of physics, UNIST, [4]center for underground physics, IBS)

H2.11 [17:00 - 17:12]

Dark Photon Search at Yemilab, Korea / SEO Seon Hee*[1], KIM Yeongduk[1] ([1]Center for Underground Physics, Institute for Basic Science)

[H3-H8] No session

[H9-ap] [F] The 100th anniversary of ferroelectricity : achievement and future

2020. 11. 06 Friday 15:00~16:36

Room: 09

좌장 : **양찬호** 한국과학기술원

Chair : YANG Chan-Ho (KAIST)

H9.01 [15:00 - 15:24]

Miscroscopic structrue and roles of defects and impurities in perovskite ferroelectric oxides / PARK Chul Hong*1, KIM Dokyun[2] ([1]Department of Physics Education, Pusan National University, [2]Department of Physics, Pusan National University)

H9.02 [15:24 - 15:48]

Atomistic visualization of ferroelectricity via Scanning Transmission Electron Microscopy / CHOI Si-Young*1 ([1]Department of Materials Science & Engineering, POSTECH)

H9.03 [15:48 - 16:12]

Unit-cell-scale ferroelectricity : Flat band breaks the 100-years myth of necessitating domains / LEE Jun Hee*1 ([1]School of Energy and Chemical Engineering, UNIST)

H9.04 [16:12 - 16:36]

Beginning of ferroelectric thin film researches in Korea and the following developments / NOH Tae Won*1,2 ([1]Center for Correlated Electron Systems, Institute for Basic Science, [2]Department of Physics and Astronomy, Seoul National University)

[H10-H11] No session

[H12-st] Econophysics

2020. 11. 06 Friday 15:00~15:36

Room: 12

좌장 : **육순형** 경희대학교

Chair : YOOK Soon-Hyung (Kyung Hee University)

H12.01 [15:00 - 15:12]

하드포크 그 이후: 비트코인과 비트코인 파생 코인들 간의 정보 흐름 실증 분석 / AHN Kwangwon*2, CHO Yerim[3], YI Eojin[1], SOHN Sungbin[4] ([1]Moon Soul Graduate School of Future Strategy, KAIST, [2]Future Strategy, Yonsei University, [3]Department of Industrial Engineering, Yonsei University, [4]HSBC Business School, Peking University)

H12.02 [15:12 - 15:24]
보이는 것이 다가 아니다: 비트코인과 비트코인 캐시 시장 사례 분석 연구 / KIM Hyeonoh[1], JEON Jooyoung[1], AHN Kwangwon*[2] ([1]Graduate School of Future Strategy, KAIST, [2]Future Strategy, Yonsei University)

H12.03 [15:24 - 15:36]
신종 코로나바이러스(COVID-19) 국면의 유가 폭락 예측 : 시장 속성을 중심으로 / AHN Kwangwon*[1], YI Eojin[2], KIM Duyoung[3] ([1]Future Strategy, Yonsei University, [2]Moon Soul Graduate School of Future Strategy, KAIST, [3]Department of Investment Information Engineering, Yonsei University)

[H13-te] Physics Education in Diverse Setting
2020. 11. 06 Friday 15:00~15:48
Room: 13
좌장 : 정용욱 경상대학교
Chair : CHEONG Yong Wook (Gyeongsang National University)

H13.01 [15:00 - 15:12]
과학 교사의 제안에서 시작된 과정중심평가 기반 수업 및 평가 실행 분석 / JI Young rae*[1], KIM Donggeon[2] ([1]Department of Physics education, Sunchon National University, [2]Department of Educational Technology, Changdeok Girls' Middle School)

H13.02 [15:12 - 15:24]
Bra-Ket Representation of Inertia Tensor / KIM U-Rae[2], KIM Dohyeon[2], LEE Jungil*[2] ([1]Korea University, [2]Department of Physics, Korea University)

H13.03 [15:24 - 15:36]
Relativistic Analogue Hidden in a Projectile Motion / LIM Jae Hoon[2], JUNG Dong-Won[2], KIM U-Rae[2], CHO Sungwoong[2], LEE Jungil*[2] ([1]Korea University, [2]Department of Physics, Korea University)

H13.04 [15:36 - 15:48]
Understanding the Theory of Special Relativity Based on Einstein's Exploration Process for Science Education / OH Jun Young*[1], SON Yeon-A[2] ([1]Hanyang University, [2]Institute for Integrated Science Education, Dankook University)

[H14] No session

[H15-op] Optics II

2020. 11. 06 Friday 15:00~16:36

Room: 15

좌장 : 한상윤 대구경북과학기술원

Chair : HAN Sangyoon (DGIST)

H15.01 [15:00 - 15:12]

Atomically flat single-crystalline copper films for plasmonics / CHEW Soo Hoon[1,2,3], GLISERIN Alexander[1,2,3], CHOI Sungho[2,3], KIM Sujae[4], KIM Dong Eon[2,3], JEONG Se Young[*1,4], KIM Seungchul[1,5] ([1]Dept. of Optics and Mechatronics engineering, Pusan National University, [2]Department of Physics, Center for Attosecond Science and Technology, POSTECH, [3]Max Planck Center for Attosecond Science, Max Planck POSTECH/Korea Research Initiative, [4]Crystal Bank Research Institute, Pusan National University, [5]Department of Cogno-Mechatronics Engineering, College of Nanoscience and Nanotechnology, Pusan National University)

H15.02 [15:12 - 15:24]

Emerging unnatural optical magnetism from DNA-guided metamolecules / HUH Ji-Hyeok[1], WANG Pengfei[2], LEE Jaewon[1], KIM Kwangjin[1], KE Yonggang[3], LEE Seungwoo[*1,4] ([1]Graduate School of Converging Sci & Tech & Dept. of Integrative Energy Engineering, Korea University, [2]Institute of Molecular Medicine (IMM), Renji Hospital, Shanghai Jiao Tong University School of Medicine, [3]Wallace H. Coulter Department of Biomedical Engineering, Georgia Institute of Technology and Emory University, [4]Department of Integrative Energy Engineering, Department of Biomicrosystem Technology, and KU Photonics Center, Korea University)

H15.03 [15:24 - 15:36]

Transformable gratings for seamless and large-scale integration of multiple diffractive optical elements / LIM Yongjun[1], LEE Seungwoo[*2,1] ([1]Department of Biomicrosystem Technology, Korea University, [2]Graduate School of Converging Sci & Tech & Dept. of Integrative Energy Engineering, Korea University)

H15.04 [15:36 - 15:48]

루비듐 원자에서 생성된 안정된 편광 얽힘 양자광원 / BAE Jinhyuk[1], PARK Jiho[1], MOON Han Seb[*1] ([1]Pusan National University)

H15.05 [15:48 - 16:00]

Sum frequency generation using fiber mode-locked pulse laser and CW laser diode / KIM Hyunhak[1], PARK Nam Hun[2,3], YEOM Dong-Il[2], CHA Myoungsik[1], MOON Han Seb[*1] ([1]Pusan National University, [2]Department of Physics, Ajou University, [3]Quantum Technology Institute, KRISS)

H15.06 [16:00 - 16:12]

Simultaneous multi-particle tracking by dynamic holographic 3D imaging / BYUN Andrew[1], SUN Haeun[1], AHN Jaewook[*1] ([1]Physics, KAIST)

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H15.07 [16:12 - 16:24]
딥러닝 기법을 이용한 레이저 공간 모드의 고분해능 인식 High-resolution recognition of laser spatial modes using deep-learning technique / KO Do-Kyeong*[1], NA Youngbin[1] ([1]Dept. of Physics and Photon Science, GIST)

H15.08 [16:24 - 16:36]
THz 메타구조를 이용한 페로브스카이트 포논-폴래리톤 관측 / KIM Hwan Sik[1], HA Na Young[1], PARK Ji-Yong[1], LEE Soonil[1], KIM DaiSik[2] , AHN Yeong Hwan*[1] ([1]Ajou University, [2]Department of Physics, UNIST)

[H16-H18] No session

[H19-bp] [F] Dynamic Processes in the Cells
2020. 11. 06 Friday 15:00~16:12
Room: 19
좌장 : 김하진 울산과학기술원
Chair : KIM Hajin (UNIST)

H19.01 [15:00 - 15:24]
Higher-order chromatin structure in gene regulation / JUNG Inkyung*[1] ([1]Department of Biological Sciences, KAIST)

H19.02 [15:24 - 15:48]
The Stickers and Spacers Framework: Understanding Biomolecular Phase Separation Behaviors / CHOI Jeong-Mo*[1] ([1]Department of Chemistry, Pusan National University)

H19.03 [15:48 - 16:12]
Nuclear Mechanobiology: Biological interpretation of subcellular nuclear mechanics / KIM Dong-Hwee*[1] ([1]KU-KIST Grad Sch Converging Sci & Tech, Korea University)

[H20-or] [E] [APCTP-KPS-JPS Meeting] Distinguished Lectures
2020. 11. 06 Friday 15:00~18:00
Room: 20
Chair 1: ISHIBASHI Nobuyuki (Tokyo Institute of Technology)
Chair 2: KIM Changyoung (Seoul National University)
Chair 3: SIN Sang-Jin (Hanyang University)
Chair 4: TAJIMA Setsuko (JPS)

[15:00 - 15:15]
Opening Remark / BANG Yunkyu (APCTP), NAGAE Tomofumi (JPS), SUGAWARA Hirotaka (OIST)

H20.01 [15:15 - 15:55]
Chair 1: ISHIBASHI Nobuyuki (Tokyo Institute of Technology)
Quantum chaos and black holes / HASHIMOTO Koji*1 ([1]Osaka Univ.)

H20.02 [15:55 - 16:35]
Chair 2: KIM Changyoung (Seoul National University)
Towards room-temperature T_c in van der Waals layered magnetic semiconductors / LEE Young Hee*1 ([1]Sungkyunkwan Univ., IBS)

H20.03 [16:35~17:15]
Chair 3: SIN Sang-Jin (Hanyang University)
Recent advances with neutrino program in Korea / KIM Yeongduk*1 ([1]IBS)

H20.04 [17:20~17:55]
Chair 4: TAJIMA Setsuko (JPS)
Emergent electromagnetic phenomena from topological magnets / TOKURA Yoshinori*1 ([1]RIKEN, Univ. of Tokyo)

[17:55~18:00]
Closing Remark / LEE Bum-Hoon (KPS)

포스터발표논문 시간표

Poster session schedule

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
Room: Virtual poster room

P1-ap.101
그래핀/그래핀 산화물 접합 소자에서의 전자기적 특성 연구 / KEE Eun Hee[1], HAIDARI Mohd Musaib[1], JEON Ji Hoon[1], LEE Ji Hye[2], KIM Jin Hong[1], CHOI Jin Sik[1], PARK Bae Ho[*1] ([1]Department of Physics, Konkuk University, [2]Center for Correlated Electron Systems (CCES), Imstitute of Basic Science (IBS), Department of Physics and Astronomy, Seoul National University)

P1-ap.102
Experimental band structure of group-IV monochalcogenides / AN Gijeong[1], SOHN Yeongsup[1,2], KIM Minsu[1], HUH Minjae[1,2], NAM Gi hwan[1], KIM Keun su[*1] ([1]Department of Physics, Yonsei University, [2]Department of Physics, POSTECH)

P1-ap.103
Observation of the Dirac nodal surface in black phosphorus / KIM Keun Su[*1], PARK Do Yun[1], HUH Minjae[1,2], RYU Sae Hee[1,2] ([1]Department of Physics, Yonsei University, [2]Department f Physics, POSTECH)

P1-ap.104
Theoretical Investigations of Graphene/Y_2C van der Waals Heterostructures / HONG SukLyun[*1], CHOI Chang-Gyu[1], KIM Junghwan[1], CHA Janghwan[1] ([1]Sejong University)

P1-ap.105
용액 공정 기반으로 합성된 $W_xMo_{1-x}S_2$ 합금 박막의 열분해 성장 온도에 따른 구조적 특성 분석 / KIM Bohyeon[1], BU Sang-Don[*1] ([1]Department of Physics, Jeonbuk National University)

P1-ap.106
다층 a-MoO_3 기반 전계 효과 트랜지스터의 산소 결함 유도에 의한 전도도 특성 향상 및 게이트 전압 의존 특성 연구 / 윤유주[1], 유다희[1], 서승희[1], 허윤석[1], 진형진[1], KANG Haeyong[*1] ([1]Department of Physics, Pusan National University)

P1-ap.107
Graphene nano-electro-mechanical resonator arrays; physical properties and application to radio / JE Yugyeong[1], SHIN DongHoon[2], LEE Sang-Wook[*1] ([1]Department of Physics, Ewha Womans University, [2]Kavli Institute of Nanoscience, Delft University of Technology)

P1-ap.108

Monolithic Interface Contact Engineering to Boost Optoelectronic Performances of 2D Semiconductor Photovoltaic Heterojunctions / YANG Seunghoon[1], CHA Janghwan[2], KIM Jong Chan[3], HUH Woong[1], LEE Donghun[1], KIM Yoon Seok[1], LEE Seong Won[6], PARK Hong-Gyu[6], JEONG Hu Young[4], HONG Suklyun[2], LEE Gwan-Hyoung[5], LEE Chul-Ho[*1] ([1]Korea University, [2]Department of Physics, Sejong University, [3]School of Materials Science and Engineering, UNIST, [4]UNIST Central Research Facilities, UNIST, [5]Department of Materials Science and Engineering, Seoul National University, [6]Department of Physics, Korea University)

P1-ap.109

Experimental Band Structure of Black-arsenic Studied by Angle-resolved Photoemission Spectroscopy / KANG Changmo[1], RYU Sae Hee[1], HUH Minjae[1,2], KIM Keun Su[*1] ([1]Department of Physics, Yonsei University, [2]Department of Physics, POSTECH)

P1-ap.111

Electrical and optical properties of large-area MoS_2 layers synthesized on silicon substrates / KIM Yoon Sok[1], KIM Taeyoung[1], KIM Eun Kyu[*1] ([1]Department of Physics, Hanyang University)

P1-ap.112

Water-assisted Layer Transfer of Large-scale Molybdenum Disulfifide Onto Arbitrary Substrates for Flexible Electronics / LYU Zhiyi[1], QIAN Yongteng[1], IM Jae Min[1], KANG Dae Joon[*1] ([1]Sungkyunkwan University)

P1-ap.114

Enhanced Raman spectra in WS_2/ReS_2 heterostructure / CHEONG Hyeonsik[*1], NA Woongki[1], KWON Yongjae[1] ([1]Department of Physics, Sogang University)

P1-ap.115

화학기상증착법의 제어를 통한 그래핀 일함수의 조절 (Direct tuning of graphene work function via chemical vapor deposition control) / CHA YUNMI[*1] ([1]physics, Myongji University)

P1-ap.116

Vertically Stacked Two-dimensional Layered Double Hydroxide based Transparent Unipolar Switching Memory / CHO Haein[1], JEON Chan-Woo[2], PARK Il-Kyu[2], CHOI Sanghyeon[1], JANG Jingon[1], WANG Gunuk[*1] ([1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Department of Materials Science and Engineering, Seoul National University of Science and Technology)

P1-ap.117

Optical spectroscopy of van der Waals material Nb_3I_8 / KIM Jangwon[1], LEE Youjin[2,3], SON Suhan[2,3], PARK Je-Geun[2,3], KIM Jae Hoon[*1] ([1]Department of Physics, Yonsei University,

[2]Department of Physics and Astronomy, Seoul National University, [3]Center for Quantum Materials, Seoul National University)

P1-ap.118

X-ray Spectroscopy Study of Atomic-Layer-Deposited MoS_2 Monolayer on SiO_2 / KIM Yejin[1], LEE Minji[1], MOHAMED Ahmed Yousef[1], CHO Deok-Yong[*1] ([1]Department of Physics, Jeonbuk National University)

P1-ap.119

Intra-layer exciton energy shifts in TMD heterostructure / KIM Jungcheol[1], CHEONG Hyeonsik[*1] ([1]Department of Physics, Sogang University)

P1-ap.120

Piezo/triboelectric energy harvester using two-dimensional In_2Se_3 flakes / CHO Samyeon[1], RANI Adila[1], PARK Jiseul[2], HAN Seunghun[1], LIM Seongvin[2], JEONG Chang Kyu[2], BU Sang-Don[*1] ([1]Department of Physics, Jeonbuk National University, [2]Division of Advanced Materials Engineering, Jeonbuk National University)

P1-ap.121

Interlayer Vibration Modes of Monolayer-Bilayer MoS_2/WSe_2 Heterostructure / CHEONG Hyeonsik[*1], OH Siwon[1], KIM Jungcheol[1] ([1]Department of Physics, Sogang University)

P1-ap.122

Chemically Cleavable Two-Dimensional Ruddlesden-Pooper Organic-Inorganic Hybrid van der Waals Magnets / KIM Ki-Yeon[*1], PARK Garam[2], CHO Jaehun[3], KIM Joonwoo[3], KIM June-Seo[3], JUNG Jinyong[4], PARK Kwonjin[4], YOU Chun-Yeol[4], OH In-Hwan[1] ([1]Quantum Beam Science Center, KAERI, [2]Nuclear Chemistry Research Team, KAERI, [3]Division of Nanotechnology, DGIST, [4]Department of Emerging Materials Science, DGIST)

P1-ap.123

Domain structure and birefringence of few-layer ReS_2 / PARK Je Myoung[1], NA Woongki[1], CHOI Yun[1], LEE Sol[2], KIM Kwanpyo[2], CHEONG Hyeonsik[*1] ([1]Department of Physics, Sogang University, [2]Department of Physics, Yonsei University)

P1-ap.124

Electrical Characteristics of Field Effect Transistors Based on MoS_2 Monolayer Grown by Chemical Vapor Deposition / LEE Sang-Kwon[*1], PARK No-Won[1], CHOI Jae-Won[1], KIM Yun-Ho[1] ([1]Physics, Chung-ang University)

P1-ap.125

Interlayer modes in 2H-$MoTe_2$/hBN heterostructure / NGUYEN Manh Hong[1], LIM Soo Yeon[1], CHEONG Hyeonsik[*1] ([1]Department of Physics, Sogang University)

P1-ap.126

Photoinduced topological phase transition and optical conductivity of black phosphorene / MOON Kyungsun[*1], KANG Yousung[1] ([1]Department of Physics, Yonsei University)

P1-ap.127

Scanning Probe Microscopy Studies of Photon-Plasmon-Exciton Coupling in MoS_2/Au-Nanogratings / KWON Soyeong[1], LEE Seong-Yeon[2], CHOI Soo Ho[3], KANG Jang-Won[4], LEE Taejin[5], SONG Jungeun[1], LEE Sang Wook[1], CHO Chang-Hee[5], KIM Ki Kang[3], YEE Ki-Ju[2], KIM Dong-Wook[*1] ([1]Department of Physics, Ewha Womans University, [2]Department of Physics, Chungnam National University, [3]Center for Integrated Nanostructure Physics, Sungkyunkwan University, [4]Department of Physics, Mokpo National University, [5]Department of Emerging Materials Science, DGIST)

P1-ap.128

Spin Seebeck Effect in the 2D Ferromagnetic $CrPbTe_3$ / HONG Ji Sang[*1], MARFOUA Brahim[1] ([1]Physics, Pukyong National University)

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
Room: Virtual poster room

P1-ap.201
그래핀과 강유전체 물질을 이용한 FET 소자의 전기적 특성 분석 및 개선 / LEE Kyungmin[1], SEO Seunghee[1], KANG Haeyong[*1] ([1]Department of Physics, Pusan National University)

P1-ap.202
다공성 실리콘을 감지부로 이용한 정전형 센서의 습도 감응 특성 / PARK Jongha[1], KIM Sohee[1], CHO Joonghyun[1], LEE Kiwon[*1], HONG Sayong[1], KIM Yong-gi[1] ([1]Kongju National University)

P1-ap.203
Double-layer Deposition Method for Enhancement Surface and Magnetic Properties of Amorphous $CoFe_2O_4$ Thin Film / LEE Hyunkyung[1], KIM BYEONGWAN[1], KANG Haeyong[*1] ([1]Department of Physics, Pusan National University)

P1-ap.204
Spontaneous van der Waals epitaxy of chalcogenide thin film by pulsed laser deposition / LEE Sang A[1], HWANG Jae-Yeol[*1] ([1]Department of Physics, Pukyong National University)

P1-ap.205
음향 센서를 이용한 DED 방식 금속 3D 프린팅의 공정 모니터링 / JANG Yea Sol[1], YOON Hyung-Do[1], KANG Chang Koo[2], KIM Young Soo[2], LEE Kyung Ha[2], SEO Yong Gon[*1] ([1]Nano Convergence Technology Research Center, KETI, [2]DENT R&D Center, DE&T Co., Ltd)

P1-ap.206
Chemical growth of PbS directly on large-area graphene for photovoltaic infrared high performance photo-detectors / OH Eunsoon[*1], AMPADU EMMANUEL KWAME[1], KIM Jungdong[1], KIM KeunSoo[2], LEE Dongyun[2] ([1]Department of Physics, Chungnam National University, [2]Department of Physics and Graphene Research Institute-Texas Photonics Center International Research Center (GRI-TPC IRC), Sejong University)

P1-ap.207
Surface Raman enhancement of Vertically-Oriented WS_2 nanosheets with a few layers / KIM Jayeong[1], SHIN Yukyung[2], JANG Yujin[1], KO Eunji[1], LEE Nam-Suk[3], KIM Myung Hwa[2], YOON Seokhyun[*1] ([1]Department of Physics, Ewha Womans University, [2]Department of Chemistry & Nanoscience, Ewha Womans University, [3]National Institute for Nanomaterials Technology (NINT), POSTECH)

P1-ap.208

Curing of Moisture Sensitive Polymers Based Microstructures Using Freeze-Drying Method / HWANG Jaeseok[2], JEON Tae Hyun[1], KANG Dae Joon[*1] ([1]Sungkyunkwan University,2Energy Science, Sungkyunkwan University)

P1-ap.209

Charge transport study of lead halide perovskite and oxide layer interface / YOUN Sarah Su-O[1], JO William[1], KIM Gee Yeong[*2] ([1]Department of Physics, Ewha Womans University, [2]Advanced Photovoltaics Research Center, Korea Institute of Science and Technology)

P1-ap.210

Identification and Classification of Defects in STEM images of MoS_2 using Deep Learning / CHOI Soyeon[1], LEE Yangjin[1], KIM Kwanpyo[*1] ([1]Physics, Yonsei University)

P1-ap.211

Improving thermoelectric performance of silicon nanowires by heat dissipation and energy filtering through gold nanoparticles / JEON Gi Wan[1], JANG Jae Won[*1] ([1]Division of Physics and Semiconductor Science, Dongguk University)

P1-ap.212

Nanostructure CuO application for hydrogen gas sensor / LEE Gun Hee[1], UMESH Nakate Tukaram[1], HONG Chang-Hee[1], SUH Eunkyung[*1] ([1]School of semiconductor and Chemical Engineering, Jeonbuk National University)

P1-ap.213

수성 폴리우레탄 아크릴레이트와 BNNT 충진 복합재의 성능향상에 효율적인 BNNT의 함유량 연구 / LEE Yong Joon[1], LEE Hak Ji[1], SONG Jun Yong[1], YOO Young Joon[1], LA Yunju[1], PARK Sang Yoon[*1] ([1]Advanced institutes of convergence technology)

P1-ap.214

Laser Scribed Carbon Nanomaterials for Gas Sensor based on Polyimide-Copper composite / KO Yong-il[1], KIM Min Jae[1], LEE Gil Yong[1], JANG A-Rang[2], KIM Keun Soo[*1] ([1]Department of Physics & Astronomy, Sejong University, [2]Department of Electrical Engineering, Semyung University)

P1-ap.215

Dynamic modification changes on graphene surface observed by in-situ TEM / JEONG HyunJeong[1], JE Yugyeong[1], SHIN DongHoon[3], INANI Heena[2], MUSTONEN Kimmo[2], MANGLER Clemens[2], KOTAKOSKI Jani[2], LEE Sang-Wook[*1] ([1]Department of Physics, Ewha Womans University, [2]Kavli Institute of Nanoscience, Delft University of Technology, [3]Faculty of physics, University of Vienna)

P1-ap.216
Synthesis of Ti^{3+} Self-doped Blue TiO_2 for Enhanced Photocatalytic Performance under Visible Light / YANG Hao[1], LEE Taehyeong[1], KANG Dae Joon[*1] ([1]Sungkyunkwan University)

P1-ap.217
Plasma-synthesized gold nanoparticles for optical sensing applications / LEE GeonJoon[*1], NGUYEN Linh Nhat[1], CHOI Eun Ha[1] ([1]Kwangwoon University)

P1-ap.218
Magneto-Plasmonic Nanoparticles assembly on Nickel metasurface for Terahertz sensing. / LEE Jaebeom[*1,2], KIM Youngmi[2] ([1]Chemistry, Chungnam National University, [2]chemical Engineering and Applied Chemistry, Chungnam National University)

P1-ap.219
ReS_2 based pn Heterojunction Device / RYU Eui-Hyoun[2,3], LEE Sang-Wook[3], KIM Gyu-Tae[*1] ([1]School of Electrical Engineering, Korea University, [2]Department of micro/nano system, Korea University, [3]Department of physics, Ewha Womans University)

P1-ap.220
Correlation between magnetothermopower and magnetoresistance in topological insulator / KWON Du Hyuk[1,2], DOH Yong-Joo[3], SONG Jong Hyun[*1], BAE Myung-Ho[*2] ([1]Chungnam National University, [2]Electromagnetic Standard Group, KRISS, [3]Department of Physics and Photon Science, GIST)

P1-ap.221
Analysis of electromagnetic field distribution around metal nanostructures based on finite difference time domain method / CHOI Sung Woo[*1] ([1]Hallym University)

P1-ap.222
Research of near-field distribution and transmission properties of single metal nanoplasmon structures / HONG Se-Lim[*1] ([1]School of Nano Convergence Technology, Hallym University)

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
Room: Virtual poster room

P1-ap.301

Parametric spin wave modes in rectangular-shaped permalloy building block / HWANG Seong[1], YOON Seungha[2], HAN Songhee[3], CHO Beong Ki[*1] ([1]School of Materials Science and Engineering, GIST, [2]Nano Photonics Group, KITECH, [3]Division of Navigation Science, Mokpo National Maritime University)

P1-ap.302

Residual stress effect on the Ni_xFe_{1-x} thin film / YANG Yeonhee[1], YOON Seungha[2], CHO Beong Ki[*1] ([1]School of Materials Science and Engineering, GIST, [2]Nano Photonics Group, KITECH)

P1-ap.303

Charge-to-spin conversion in HM/FM/perovskite trilayers / JEONG Se Yeob[1], LEE Jongmin[2], JANG Heechan[1], PARK Eunkang[1], LEE Nyun Jong[1], KIM Tae Heon[1], KIM Sanghoon[*1] ([1]Department of physics, University of Ulsan, [2]School of Materials Science & Engineering, GIST)

P1-ap.304

Enhanced Magnon-Photon Coupling at the Angular Momentum Compensation Point of Ferrimagnets / SHIM Jaechul[1], KIM Seok-Jong[2], KIM Se Kwon[*1], LEE Kyung-Jin[*2,3] ([1]Department of Physics, KAIST, [2]KU-KIST Graduate School of Converging Science and Technology, Korea University, [3]Department of Materials Science and Engineering, Korea University)

P1-ap.305

Role of orbital hybridization in anisotropic magnetoresistance / KO Hye-Won[1], PARK Hyeon-Jong[2], GO Gyungchoon[3], OH Jung Hyun[3], KIM Kyoung-Whan[4], LEE Kyung-Jin[*2,3] ([1]Department of Physics, KAIST, [2]KU-KIST Graduate School of Converging Science and Technology, Korea University, [3]Department of Materials Science and Engineering, Korea University, [4]Center for Spintronics, KIST)

P1-ap.306

Controlling threshold current of auto -oscillation using cobalt co-sputtering in nano-wire structure. / KIM Byung ro[1], YOON Seungha[2], HAN Songhee[3], CHO Beong Ki[*1] ([1]School of Materials Science and Engineering, GIST, [2]Nano Photonics Group, KITECH, [3]Division of Navigation Science, Mokpo National Maritime University)

P1-ap.307

Observation of the spin-Seebeck effect in a WS_2/NiFe bilayer by the inverse spin Hall effect. / NOH Hwayong[*1], SHARMA Pradeep Raj[2], GAUTAM Praveen[3] ([1]Sejong University, [2]Department of Physics, Sejong University, [3]Department of Physics, Sejong University)

P1-ap.308

Synaptic Performance with Improved Linearity and Endurance by modulating $Pb(Zr_{0.52}Ti_{0.48})O_3$/Nb doped $SrTiO_3$ Interface Barrier. / KIM Sohwi[1], YOON Chansoo[1], JEON Jihoon[1], LEE Ji Hye[1], PARK Bae Ho[*1] ([1]Department of Physics, Konkuk University)

P1-ap.309

UV-Ozone Treated Growth of Highly Conducting SnO_2 Thin Films for Various Device Applications / KIM JIhyun[1], KIM Yeon Soo[1], JUNG Hye Ri[1], JO William[*1] ([1]Department of Physics, Ewha Womans University)

P1-ap.310

Collective electromigration offers an alternative method for determining ionic conductivity / SUH Jeonghun[1,2], LIM Ji Soo[1,2], PARK Heung-Sik[1,2], YANG Chan-Ho[*1,2] ([1]Physics, KAIST, [2]Center for Latttice Defectronics, KAIST)

P1-ap.311

The relationship between Al and the unnatural negative Threshold voltage shift of solution processed Induim Gallium Zinc Oxide TFTs / KIM BYEONGWAN[1], LEE Hyunkyung[1], KIM Kanghyun[2], KANG Haeyong[*1] ([1]Department of Physics, Pusan National University, [2]Displaly, Samsung)

P1-ap.312

테이프캐스팅을 이용한 Flexible YSZ Thin film 제조 연구 / PARK Yong Yeol[1], LEE Hak Ji[1], JEON Ok Sung[1], YOO Young Joon[1], PARK Sang Yoon[*1] ([1]Advanced institutes of convergence technology)

P1-ap.313

Local magnetization control through reduction of CoO_x thin films / KIM Jisu[1], PARK Eunkang[1], LEE Nyun Jong[1,3], LEE Taekhyeon[2], YANG Ji-Seok[2], PARK Seongboo[1], SHIN Young-Han[1], LEE Ki-Seung[3], YOU Chun-Yeol[3], KIM Kab-Jin[2], KIM Sanghoon[*1] ([1]Department of physics, University of Ulsan, [2]Department of Emerging Materials Science, KAIST, [3]Department of Physics, DGIST)

P1-ap.314

Achieving atomically flat and single-terminated layered perovskite substrate surfaces / KIM Jinkwon[1,2], KIM Jeong Rae[1,2], HAHN Sungsoo[1,2], KIM Youngdo[1,2], KIM Changyoung[1,2], NOH Tae Won[*1,2] ([1]Center for Correlated Electron Systems, Institute for Basic Science, [2]Department of Physics and Astronomy, Seoul National University)

P1-ap.315

Enhancement of Output Performance in relaxor ferroelectric $Bi_{0.5}(Na_{1-x}K_x)_{0.5}TiO_3$ piezoelectric nanogenerator / BU Sang-Don[*1], KIM Eun-Young[1] ([1]Department of Physics, Jeonbuk National University)

P1-ap.316

Photogenerated characteristic of Na passivated $Cu_2ZnSn(S,Se)_4$ thin-film solar cells by Kelvin probe force microscopy / PARK Ha Kyung[1], CHO Yunae[1], KIM Juran[1], JEONG Woo-Lim[2], KIM Kyung-Pil[2], LEE Dong-Seon[2], JO William[*1] ([1]Department of Physics, Ewha Womans University, [2]School of Electrical Engineering and Computer Science, Gwangju Institute of Science and Technology (GIST))

P1-ap.317

A membraneless nonenzymatic fiber-shaped glucose fuel cell based on multiwall carbon nanotube yarn electrode / SUH Dongseok[*1], LE Suong Thi[1] ([1]Department of Energy Science, Sungkyunkwan University)

P1-ap.318

Analysis of Helical-type Electromagnetic Pump for Lithium Charge Stripper / LEE GeunHyeong[*1], KIM HeeReyoung[1] ([1]Department of Nuclear Engineering, UNIST)

P1-ap.319

메타소재 기반의 THz 투과체 및 조절장치 / YOO Young Joon[*1], LEE Yong Joon[1], LA Yunju[1], PARK Sang Yoon[*1] ([1]Advanced institutes of convergence technology)

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
Room: Virtual poster room

P1-ap.401
유기물 반도체 TMTSF의 전하수송 특성 연구 / LEE In Jae[*1], BAE Junwan[1] ([1]Department of Physics, Chonbuk National University)

P1-ap.402
The tunability of energy levels in the highly ordered conjugated polymer system / KIM Kitae[1,2], JEONG Junkyeong[1], YANG Jaehyun[1], YOO Jisu[1], PARK Soohyung[2], LEE Hyunbok[3], YI Yeonjin[*1] ([1]Department of Physics, Yonsei University, [2]Advanced Analysis Center, KIST, [3]Department of Physics, Kangwon National University)

P1-ap.403
Optoelectronic Responses in $CH_3NH_3PbCl_3$ Perovskite Crystals with of Excitonic Behavior / JUNG Hye Ri[1], BARI Maryam[2], JO Young Chan[3], KIM Jae Hoon[3], YULDASHEV Shavkat[4], NGUYEN Trang Thi Thu Nguyen[1], KIM Yejin[1], YOON Seokhyun[1], YE Zuo-Guang[2], JO William[*1] ([1]Department of Physics, Ewha Womans University, [2]Department of Chemistry, Simon Fraser University, [3]Department of Physics, Yonsei University, [4]Quantum Functional Semiconductor Research Center, Dongguk University)

P1-ap.404
Increasing electrical efficiency of MFC with synechococcus sp. / LIM EunJu[*1], KIM Seonghyun[1] ([1]integrative systems engineering, Dankook University)

P1-ap.405
Study on the charge transfer characteristics of organic semiconductor devices with controlled crystal properties by heat and nanoparticles / LIM EunJu[*1], CHO SeongJib[1] ([1]Convergent Systems Engineering, Dankook University)

P1-ap.406
Effect of temperature during stirring of P3HT:PCBM solution on organic photovoltaics / KIM Wonsik[1,2], OH Jaewon[1], CHOI Seungsun[1,2], SHIN Woojin[1,2], OH Hyesung[1], JUNG Sehyun[1], RYU Mee-Yi[1], LEE Hyun Bok[*1,2] ([1]Department of Physics, Kangwon National University, [2]Institute for Accelerator Science, Kangwon National University)

P1-ap.407
Variation in optical and electronic properties of polymeric thin films by ultraviolet-ozone treatment / LEE Hyun Bok[*1,2], CHOI Seungsun[1,2], KIM Wonsik[1,2], SHIN Woojin[1,2], OH

Jeawon[1], JIN Sila[2,3], JUNG Young Mee[2,3], RYU Mee-Yi[1] ([1]Department of Physics, Kangwon National University, [2]Accelerator Science, Kangwon National University, [3]Department of Chemistry, Kangwon National University)

P1-ap.408

Structural and Optical Characterization of Mechanochemically Synthesized Cs-based Perovskites / BAEK Kyeong-Yoon[1], LEE Woocheol[1], LEE Jeongjae[2], LEE Jonghoon[1], AHN Heebeom[1], KIM Junwoo[1], KANG Keehoon[*1], LEE Takhee[*1] ([1]Department of Physics and Astronomy, Seoul National University, [2]School of Earth and Environmental Sciences, Seoul National University)

P1-ap.409

Improving electron injection with nucleoside cytidine in organic light-emitting diode / LEE Hyun Bok[*1], SHIN Woojin[1], KIM Wonsik[1], CHOI Senugsun[1], OH Hyesung[1], JUNG Sehyun[1], KIM Boyoung[1] ([1]Department of Physics, Kangwon National University)

P1-ap.410

Antisolvent-mixed perovskite precursor for high-performance perovskite solar cells / LIU Xuewen[1], XU Chongyang[1], LEE Eun-Cheol[*1] ([1]Gachon University)

P1-ap.411

development of a single device-based organic tactile synapse for artificial learning skin applications / JANG Seonghoon[1], LEE Kyuho[2], KIM KangLib[2], KOO Min[2], PARK Chanho[2], LEE Seokyeong[2], LEE Junseok[2], PARK Cheolmin[2], WANG Gunuk[*1] ([1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Department of Materials Science and Engineering, Yonsei University)

P1-ap.412

Fiber-shaped multi-synapses based on the organic ferroelectric transistor for wearable neuromorphic applications / WANG Gunuk[*1], HAM Seonggil[1], KANG Minji[2], JANG Seonghoon[1], JANG Jingon[1], CHOI Sanghyeon[1], KIM Tae-Wook[2] ([1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Department of Flexible and Printable Electronics, Jeonbuk National University)

P1-ap.413

Highly Tunable Molecular Rectifier Realized by Interfacial Design in Molecular Heterojunction with Two-Dimensional Materials / SHIN Jaeho[1], YANG Seunghoon[1], JANG Yeonsik[2], EO Jung Sun[1], KIM Tae-Wook[3], LEE Takhee[2], LEE Chul-Ho[1], WANG Gunuk[*1] ([1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Department of Physics and Astronomy, and Institute of Applied Physics, Seoul National University, [3]Department of Flexible and Printable Electronics, Jeonbuk National University)

P1-ap.414

Realization of Sub-2nm Molecular Selector for Next-generation Memory Application

/ EO Jung Sun[1], SHIN Jaeho[1], WANG Gunuk*[1] ([1]KU-KIST Graduate School of Converging Science and Technology, Korea University)

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
Room: Virtual poster room

P1-ap.501
Structural phase transition behavior of methylammonium lead halide perovskite single crystals studied by Raman scattering spectroscopy / YOON Seokhyun[*1], NGUYEN Trang Thi Thu[1], KIM Yejin[1], PARK Joohee[1], JUNG Hye-Ri[1], JO William[1], BAE Soungmin[2], KIM Yong-Hoon[2], BARI Maryam[3], YE Zuo-Guang[3] ([1]Department of Physics, Ewha Womans University, [2]Depeartment of Physics, KAIST, [3]Department of Chemistry, Simon Fraser university)

P1-ap.502
PEDOT:PSS mixed with inorganic V_2O_5 as hole injection layer for efficient quantum-dot light-emitting diodes / SHIN Jae Seung[1], KIM Tae Yeon[1], HEO Su Been[1], HONG Jong-Am[2], PARK Yongsup[2], KANG Seong Jun[*1] ([1]정보전자신소재공학과, Kyung Hee University, [2]Department of Physics, Kyung Hee University)

P1-ap.504
근적외선 영역에서의 광섬유 기반 선형 위상 제어 Fiber-based Linear Phase Change in the Near-Infrared Range / KIM Eun Sun[1], LEE Seung Seok[1], CHOI Eun Seo[*1] ([1]Chosun University)

P1-ap.505
Versatile red emitting $Mg_2TiO_4:Mn^{4+}$ phosphors for solid state lighting and forensic science / PARK Jin Young[1], HONG Woo Tae[2], YANG Hyun Kyoung[*1,2], JE Jae-Yong[3] ([1]Department of Electrical, Electronics and Software Engineering, Pukyong National University, [2]Interdisciplinary Program of LED and Solid State Lighting Engineering, Pukyong National University, [3]Department of Radiological Technology, dong-eui institute of technology)

P1-ap.506
Color-tuning behavior of $K_3YB_6O_{12}:Er^{3+}$, Tm^{3+}, Eu^{3+} phosphor for each activator ions various concentrations / CHUNG Jong Won[1], PARK Sung Jun[2], YANG Hyun Kyoung[*1,2], MOON Byung Kee[3] ([1]Department of Electrical, Electronics and Software Engineering, Pukyong National University, [2]Interdisciplinary Graduate Program of Artificial Inteligence on Computer, Electronic and Mechanical Engineering, Pukyong National University, [3]Departme of Physics, Pukyong National University)

P1-ap.508

Fast synthesis of carbon dots by using coffee residue / PARK Sung Jun[1], PARK Jin Young[2], YANG Hyun Kyoung[*1,2], JE Jae-Yong[3] ([1]Interdisciplinary Graduate Program of Artificial Inteligence on Computer, Electronic and Mechanical Engineering, Pukyong National University, [2]Department of Electrical, Electronics and Software Engineering, Pukyong National University, [3]Department of Radiological Technology, dong-eui institute of technology)

P1-ap.509

Microwave synthesis and latent fingerprint detection of $Ca_2MgSi_2O_7:Eu^{2+}$ phosphor / HONG Woo Tae[1], YANG Hyun Kyoung[*1,2], MOON Byung Kee[3] ([1]Interdisciplinary Program of LED and Solid State Lighting Engineering, Pukyong National University, [2]Department of Electrical, Electronics and Software Engineering, Pukyong National University, [3]Department of Physics, Pukyong National University)

P1-ap.510

Effect of mistracked principal state of polarization on measurement of optical signal to noise ratio using optical power / HAN Ki Ho[*1] ([1]Department of Optical Engineering, Kongju National University)

P1-ap.511

Responsivity of arranged fiber optic sensors using Sagnac interferometers / HAN Ki Ho[*1] ([1]Department of Optical Engineering, Kongju National University)

P1-ap.512

Structural and Optical Properties of Tris- (8-hydroxyquinoline) Aluminum Doped ZnO Nanoparticle for Organic Light Emitting Diode Applications / MAKKI Aya Hekmet[1], ZOUBI Wail Al[1], LEE Young-Woong[1], KIM Bo-myung[1], KIM Huijin[1], SON Boseong[1], SUNG Jiwon[1], SONG Yeonghak[1], KO Young Gun[1], PARK Si Hyun[*1] ([1]Yeungnam University)

P1-ap.513

Hybrid quantum system employing a nano-mechanical oscillator and a superconducting microwave resonator / CHOI Gahyun[*1], CHONG Yonuk[2], KIM Junhyung[3], KIM Duk Young[4], KIM Dong Kyu[4], JO Yonggi[4], PARK Kibog[3,5], LEE Donghun[6], KIM Zaeill[*4] ([1]Quantum Technology Institute, KRISS, [2]SKKU Advanced Institute of Nanotechnology, Sungkyunkwan University, [3]Department of Electrical Engineering, UNIST, [4]Quantum Physics Directorate, Agency for Defense Development, [5]Department of Physics, UNIST,6Department of Physics, Korea University)

P1-ap.514

Low noise telecom-band single-photon detector via frequency up-conversion / CHAE Jin-Woo[*1], KIM Jin-Hun[1], JEONG Youn-Chang[2], KIM Yoon-Ho[1] ([1]Physics, POSTECH, [2]연구부서, The affiliated institute of ETRI)

P1-ap.515

Observation of second-order interference beyond the coherence time with true thermal photons / LEE Gyu-Hyeok[*1], IHN Dong-Gil[1], KIM Yosep[1], KIM U-Shin[1], KIM Yoon-Ho[1] ([1]Physics, POSTECH)

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
Room: Virtual poster room

P1-as.001
A cosmic cloud system for the ISS-CREAM data analysis / KIM Hong Joo[*1], SEO Eun Suk[2], JEGAL Jin[1], JEONG Dong Woo[1], KANG Sin Chul[1] ([1]Department of Physics, Kyungpook National University, [2]Department of Physics, University of Maryland)

P1-as.002
Properties of AdS black hole in dilatonic Einstein-Gauss-Bonnet theory / LEE Hochoel[*1], LEE Bum-Hoon[1], LEE Wonwoo[2] ([1]Department of Physics, Sogang University, [2]CQUeST, Sogang University)

P1-as.003
천구기준계와 지구기준계에서의 지구자전축의 섭동에 대한 분석 / NA Sung-Ho[*1] ([1]Geological Sciences, Gyeongsang National University)

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
Room: Virtual poster room

P1-at.001
Comparison of Polarization Spectroscopy on Pump Beam Intensity and Cell Temperature for the ^{85}Rb F_g=3 → F_e=4 and ^{87}Rb F_g=2 → F_e=3 / JEONG Jeongyoun[1], LEE Sanglok[1], MOON Geol[*1] ([1]Department of Physics, Chonnam National University)

P1-at.002
Polarization dependence of sub-Doppler spectral resolution for four-level coherent medium in ^{85}Rb / YANG Somyeong[1], JEONG Jeongyoun[1], MOON Geol[*1] ([1]Department of Physics, Chonnam National University)

P1-at.003
Detection of the ion pair channels for collision of 4 kev hydrocarbon ion beam with helium atom / KIM Hyun[*2], CHUNG Yang Soo[*1,2] ([1]Dept. of Physics, Chungnam National University, [2]Institute of Quantum Systems (IQS), Chungnam National University)

P1-at.004
MTS를 이용한 양자중력계용 다이오드 레이저의 주파수 고안정화 / 이상록[1,2], 이상범[1], 박상언[1], 홍현규[1], 서상원[1], 허명선[1], 문 걸[*2], KWON Taeg Yong[*1] ([1]Division of Physical Metrology, KRISS, [2]Department of Physics, Chonnam National University)

P1-at.005
Single-site Resolving ^{7}Li Quantum Gas Microscope / CHOI Jae Yoon[*1], KWON Kiryang[1], KIM Kyungtae[1], HUH SeungJung[1], HUR Junhyeok[1] ([1]Physics Department, KAIST)

P1-at.006
Mechanism of HHG from solids based on Houston states / BYUN Chang Woo[1], LEE Min-Ho[*1], CHOI NarkNyul[*1] ([1]School of Liberal Arts and Teacher Training, Kumoh National Institute of Technology)

P1-at.007
Test of quantum search algorithm / CHOI Nark Nyul[*1], LEE Min-Ho[1], BYUN Chang Woo[1] ([1]School of Liberal Arts and Teacher Training, Kumoh National Institute of Technology)

P1-at.008
Higher order multiphoton frequency mixing effects on coherent electromagnetically induced absorption spectra of ^{85}Rb atoms / JADOON Zeeshan Ali Safdar[1], HASSAN

Aisar Ul[1], NOH Heung-Ryoul[2], KIM Jin-Tae[*1] ([1]Dept. of Photonic Eng., Chosun University, [2]Dept. of Physics, Chonnam National University)

P1-at.009

Development of helical resonator for trapping ytterbium ions Yb 이온 포획을 위한 나선형 공진기의 개발 / SEO Taehyun[*1], KIM Myunghun[1], HONG Jung Soo, LEE Dowon, LEE Moonjoo ([1]Electrical engineering, POSTECH)

P1-at.010

Entropic nonclassicality and quantum non-Gaussianity tests using homodyne detection with beam splitting operation / PARK Jiyong[*1], LEE Jaehak[2], NHA Hyunchul[3] ([1]School of Basic Sciences, Hanbat National University, [2]School of Computational Sciences, Korea Institute for Advanced Study, [3]Department of Physics, Texas A&M University at Qatar)

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P1-bp.001
A model of artificial chaotic 1/f noise generation / KIM Hyung-Rae*1 ([1]School of Basic Sciences, Hannam University)

P1-bp.002
A database of behavioral phenotypes of C. elegans / LEE Kyung Suk*1 ([1]Department of Physics Education, Kongju National University)

P1-bp.003
A simple, scalable imaging platform for behavioral analysis of C. elegans / LWIN Eaindra Moh Moh[1], PAHLEVI Sahreza[1], LEE Kyung Suk*1 ([1]Department of Physics Education, Kongju National University)

P1-bp.004
Recovery of fatty acid monolayers by divalent salts investigated by sum-frequency generation spectroscopy / KIM Doseok*1, SAM Sokhouy[1], KREM Sona[1] ([1]Physics, Sogang University)

P1-bp.005
Optimization of osteoblasts culture in PLCL scaffolds through electrical stimulation / LIM EunJu*1, LEE Dongkyu[1], LEE Wookul[1] ([1]integrative systems engineering, Dankook University)

P1-bp.006
Nondestructive tumor monitoring using radiation-guided targeting system / LIM Sa Hoe*1, JUNG Shin[1] ([1]Department of Neurosurgery, Chonnam National University Hospital)

P1-bp.008
Single molecule biophysical studies of chromatin-targeting anti-cancer agent Curaxin / JEON Jin-Won[1,2], MOON Hyeon-Min[1], PARK Jin-Sung[1], HONG Seok-Cheol*1,2 ([1]Center for Molecular Spectroscopy and Dynamics, Institute for Basic Science (IBS), [2]Physics, Korea University)

P1-bp.009
Exonuclease-independent mismatch repair in a cell free system / YANG KeunSang[1], LEE

Ryanggeun[2], LEE Jong-Bong[*1,2] ([1]School of Interdisciplinary Bioscience and Bioengineering, POSTECH, [2]Physics, POSTECH)

P1-bp.010

Single-molecule visualization of mismatch repair components using DNA skybridge / YANG InHo[1], LOPEZ Juani Martin[2], TAKAHASHI Masateru[3], HANDAN Samir[3], FISHEL Richard[2], LEE Jong-Bong[*1,4] ([1]Physics, POSTECH, [2]Cancer Biology and Genetics, The Ohio State University, [3]Division od Biological and Environmental Sciences and Engineering, King Abdullah University of Science and Technology, [4]Bioscience and Bioengineering, POSTECH)

P1-bp.011

Single-molecule cryo-fluorescence microscopy / YU Phil-Sang[1], LIM Seon-Woo[2], KIM Chae-Un[2], LEE Jong-Bong[*1,3] ([1]Physics, POSTECH, [2]Physics, UNIST,3School of Interdisciplinary Bioscience and Bioengineering, POSTECH)

P1-bp.012

The role of beta-actin mRNA localization in single dendritic spines studied by two-photon glutamate uncaging / SHIM Jae Yoon[1], LEE Byung Hun[1], MOON Hyungseok C.[1], PARK Hyeyoon[*1] ([1]Department of Physics and Astronomy, Seoul National University)

P1-bp.013

Transcription of Arc mRNA induced by electrical burst stimulation / KIM Dongwook[1], PARK Hyeyoon[*1], MOON Hyungseok Chad[1], CHOI Hongyoung[1], LEE Byung Hun[1], SHIM Jae Youn[1] ([1]Department of Physics and Astronomy, Seoul National University)

P1-bp.014

Fluctuation analysis of transcription in live mammalian cells / PARK Hyeyoon[*1], CHOI Hongyoung[1] ([1]Department of Physics and Astronomy, Seoul National University)

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Room: Virtual poster room

P1-co.101
Momentum dependent $d_{xz/yz}$ band splitting in LaFeAsO / HUH Soonsang[1], KIM Younsik[1], KIM Changyoung[*1] ([1]Department of Physics and Astronomy, Seoul National University)

P1-co.102
Finding the electron-boson spectral density functions with machine learning / PARK Hwiwoo[1], HWANG Jungseek[*1], PARK Jun H.[1] ([1]Department of Physics, Sungkyunkwan University)

P1-co.103
Analysis of magnetic properties in GdBCO rings with narrow paths / RI H.-C.[*1], KIM Y.-K.[1], KIM C.[1] ([1]Kyungpook National University)

P1-co.104
Interval and stacking number dependence of AC loss in GdBCO coated conductor / RI H.-C.[*1], KIM Chan[1], KIM Young-Kyoung[1], JEON Sung-min[1] ([1]Kyungpook National University)

P1-co.105
Linear Proportionality of Creep Scaling Constant on Co-Layer Thickness / LEE Seong Hyub[1], MOON Joon[1], YU Ji-Sung[1], CHOE Sug Bong[*1] ([1]Department of Physics, Seoul National University)

P1-co.106
Domain-wall-roughness-based determination scheme for Dzyaloshinskii-Moriya interaction / YU Ji-Sung[1], KIM Dae-Yun[1], MOON Joon[1], LEE Seong-Hyub[1], CHANG Jun-Young[1,2], KIM Duck-Ho[2], CHOE Sug Bong[*1] ([1]Department of Physics, Seoul National University, [2]Spin Convergence Research Center, Korea Institute of Science and Technology)

P1-co.107
Cr 기반의 이종박막 내에서 발생하는 스핀-홀 자기저항에 대한 연구 / PARK Eunkang[1], LEE Soogil[2], KANG Min-Gu[2], PARK Byong-Guk[2], KIM Sanghoon[*1] ([1]Department of physics, University of Ulsan, [2]Materials Science and Engineering, KAIST)

P1-co.108
Thickness dependent magnetic transition in vdW layered $MnPS_3$ / LIM Soo Yeon[1], KIM Kangwon[1], LEE Sungmin[2], PARK Je-Geun[2], CHEONG Hyeonsik[*1] ([1]Department of Physics,

Sogang University, [2]Department of Physics and Astronomy, Seoul National University)

P1-co.109

Two-dimensional Fe_3GeTe_2: strain effect on magneto-crystalline anisotropy / KIM G. Hye[1], AIN Qurat Ul[1], HONG SoonCheol[1], RHIM Sonny[*1] ([1]Department of Physics, University of Ulsan)

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Spin Current Generation in a Single Fe_5GeTe_2 Layer / KIM Kwangsu[1,2], ANH Hyo-bin[3], JEONG Seyeob[1], PARK Jungmin[4], LEE Nyun Jong[1], LY Trinh Thi[1], SONG Kyung Mee[2], KIM Jung Dae[1], LEE Changgu[3], PARK Tae-Eon[2], KIM Sanghoon[*1] ([1]Department of physics, University of Ulsan, [2]Center for spintronics, KIST, [3]School of mechanical engineering, Sungkyunkwan University, [4]Center for scientific instrumentation, KBSI)

P1-co.111

Non-vanishing Anomalous Hall Effect in nearly Compensated Ferrimagnet Mn_3Al / HAN Guihyun[1], PARK Minkyu[2], AN Su Yeon[1], HONG Soon Cheol[1,3], RHIM Sonny[*1,3] ([1]Department of Physics, University of Ulsan, [2]Research Institute of Basic Sciences, University of Ulsan, [3]Energy Harvest-Storage Research Center, University of Ulsan)

P1-co.112

Unidirectional spin Hall magnetoresistance현상에서 마그논 기여에 관한 연구 / JANG HeeChan[1], PARK Eunkang[1], LEE NyunJong[1,2], LEE Ki-Seung[2], YOU Chun-Yeol[2], KIM Sanghoon[*1] ([1]Department of physics, University of Ulsan, [2]Emerging Materials Science, DGIST)

P1-co.113

Temperature-dependent ARPES Study of CeRhAs / SEONG Seungho[1], DENLINGER J. D.[2], KIM Kyoo[3], MIN B. I.[4], TAKABATAKE T.[5], KANG Jeongsoo[*1] ([1]Physics, The Catholic University of Korea, [2]ALS, Lawrence Berkeley National Lab, [3]Advacned Materials Research Division, Korea Atomic Energy Research Institute, [4]Department of Physics, POSTECH, [5]Graduate School of Advanced Sciences of Matter, Hiroshima University)

P1-co.114

Successive magnetic transitions in the trimer-based triangular lattice $Ba_4NbMn_3O_{12}$ / LEE Suheon[1,2], SANNIGRAHI Jhuma[2], BERLIE Adam[2], HILLIER Adrian[2], KHALYAVIN Dmitry[2], KIM Heung-Sik[3], ADROJA Devashibhai[2], CHOI Kwang Yong[*1,2] ([1]Department of Physics, Chung-ang University, [2]ISIS Neutron and Muon Source, Rutherford Appleton Laboratory, [3]Department of Physics, Kangwon National University)

P1-co.115

Giant and highly anisotropic magnetocaloric effects in single crystals of disordered-perovskite $RCr_{0.5}Fe_{0.5}O_3$(R= Gd, Er) / SHIN Hyunjun[1], KIM Jinseok[1], KIM Jonghyuk[1], OH Donggun[1], LEE Nara[1], CHOI Young Jai[*1] ([1]Department of Physics, Yonsei University)

P1-co.116

Anisotropic and nonlinear magnetodielectric effects in orthoferrite $ErFeO_3$ single crystals / OH Dong Gun[1], KIM Jong Hyuk[1], SHIN Hyun Jun[1], CHOI Young Jai[*1], LEE Nara[1] ([1]Department of Physics, Yonsei University)

P1-co.117

Oxygen Vacancy Engineering for Highly Tunable Ferromagnetic Properties: A Case of $SrTiO_3$ Ultrathin Film with a $SrTiO_3$ Capping Layer / KO Eun Kyo[1,2], MUN Junsik[3], LEE Han Gyeol[1,2], KIM Jinkwon[1,2], SONG Jeongkeun[1,2], CHANG Seo Hyoung[4], KIM Tae Heon[5], CHUNG Suk Bum [6,7,8], KIM Miyoung[3], WANG Lingfei[1,2,9], NOH Tae Won[*1,2] ([1]Department of Physics and Astronomy, Seoul National University, [2]Center for Correlated Electron Systems, Institute for Basic Science (IBS), [3]Department of Materials Science and Engineering and Research Institute of Advanced Materials, Seoul National University, [4]Department of Physics, Chung-Ang University, [5]Department of Physics and Energy Harvest Storage Research Center (EHSRC), University of Ulsan, [6]Department of Physics, University of Seoul, [7]Natural Science Research Institute, University of Seoul, [8]School of Physics, Korea Institute for Advanced Study, [9]Hefei National Laboratory for Physical Sciences at Microscale, University of Science and Technology of China)

P1-co.118

Coupling magnon modes with microwave-cavity modes at low temperature below 20 mK / KIM Duk Y.[*1], KIM Dong Kyu[1], IHN Yong Sup[1], LEE Su-Yong[1], KIM Zaeil[1] ([1]Agency for Defense Development)

P1-co.119

Torque magnetometry using circuit change of membrane-type surface stress sensor / ABDALLAH Mariam Omran[1], CHOI Joonyoung[1], JO Youn Jung[*1] ([1]Physics, Kyungpook National University)

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P1-co.201

Controlling anomalous Hall effect and hump structure in $SrRuO_3$ ultra-thin film by tuning inversion symmetry breaking / KIM Donghan[1,2], SOHN Byungmin[1,2], KIM Minsoo[1,2], HAHN Sungsoo[1,2], KIM Youngdo[1,2], KIM Jong Hyuk[3], CHOI Young Jai[3], KIM Changyoung[*1,2] ([1]CCES (IBS), CCES (IBS), [2]Department of Physics and Astronomy, Seoul National University, [3]Department of Physics, Yonsei University)

P1-co.202

Strain-dependent electronic properties of $SrRuO_3$ thin film / HAHN Sungsoo[1,2], RYU Hanyoung[1,2], SOHN Byungmin[1,2], KIM Jeongrae[1,2], DAS Saikat[1,2], KIM Changyoung[*1,2] ([1]Department of Physics and Astronomy, Seoul National University, [2]Center for Correlated Electron Systems, Institute for Basic Science, CCES (IBS))

P1-co.203

Electronic structures and magnetic properties of ruthenate thin films / LEE SANG A[1], LEE JEGON[2], BAE JONG-SEONG[3], SONG SEHWAN[4], PARK SUNGKYUN[4], CHOI WOO SEOK[2], HWANG JAE-YEOL[*1] ([1]Pukyong National University, [2]Department of Physics, Sungkyunkwan University, [3]Busan Center, KBSI, [4]Department of Physics, Pusan National University)

P1-co.204

Observation of Kondo hybridization with an orbital-selective Mott phase in 4d $Ca_{2-x}Sr_xRuO_4$ / KIM Minsoo[1,2], KIM Changyoung[*1,2], KYUNG Wonshik[*1,2] ([1]Center for correlated electron systems, Institute for basic science, [2]Department of Physics and Astronomy, Seoul National University)

P1-co.205

Variety of resistance properties and lattice parameters of $SrIrO_3$ films according to growth conditions / LEE DooPyo[3], MAENG JinYoung[2], SONG Jong Hyun[*2], PARK JaeHoon[3] ([1]Chungnam National University, [2]Department of Physics, Chungnam National University, [3]Department of Physics, POSTECH)

P1-co.206

Unconventional superconducting properties in one-unit cell $LaAlO_3$ capped with $SrTiO_3$ / KWAK Yongsu[1], HAN Woojoo[2], LEE Joon Sung[4], KIM Jinhee[3], SONG Jong Hyun[*1] (1Chungnam National University, [2]Department of Nanoscience, UST, [3]플랑크상수질량팀, KRISS, [4]Display and Semiconductor Physics, Korea University)

P1-co.207

Observation of Kondo lattice behavior in an antiferromagnetic metal FeTe / KIM Younsik[1,2], HUH Soonsang[1,2], KIM Jong Hyuk[3], CHOI Young Jae[3], KIM Changyoung[*1,2] ([1]Center for Correlated Electron Systems, Institute for Basic Science, [2]Department of Physics and Astronomy, Seoul National University, [3]Department of Physics, Yonsei University)

P1-co.208

Temperature dependent anomalous Hall effect in (Co, Ni)S_2 single crystals / CHOI Joonyoung[1], SALAWU Yusuff[4], KIM Mi Kyung[2,3], KIM Changyoung[2,3], KIM Heon-Jung[4], JO Youn Jung[*1] ([1]Physics, Kyungpook National University, [2]Center for Correlated Electron Systems, IBS, [3]Department of Physics and Astronomy, Seoul National University, [4]Department of Materials-Energy Science and Engineering, Daegu University)

P1-co.209

Control of Photothermoelectric Effect in Topological Insulator / PARK Soohyun[1], LEE Jekwan[2], YU Ki Jun[1], CHOI Hyunyong[*2] ([1]Electrical and Electronic Engineering, Yonsei University, [2]Physics and Astronomy, Seoul National University)

P1-co.210

Electronic band structure of Cu_3TeO_6 via visible-UV Spectroscopy / KIM Jae Ha[1], SIM Kyung Ik[1,2], TIRTHANKAR Chakraborty[3,4], PARK Je Geun[4], KIM Jae Hoon[*1] ([1]Department of Physics, Yonsei University, [2]Center for Integrated Nanostructure Physics, IBS, [3]Center for Quantum Materials, Seoul National University, [4]Chemical Physics of Solids, Max Planck Institute)

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Growth optimization and characterization of ferroelectric properties in Bi_2WO_6 thin films / JEONG Jihwan[1,2], MUN Junsik[1,3], KIM Jinkwon[1,2], KIM Jeong Rae[1,2], PENG Wei[1,2], DAS Saikat[1,2], KIM Miyoung[1,3], NOH Tae Won[*1,2] ([1]Department of Physics and Astronomy, Seoul National University, [2]Center for Correlated Electron Systems, Institute for Basic Science (IBS), [3]Department of Materials Science and Engineering and Research Institute of Advanced Materials, Seoul National University)

P1-co.212

Temperature Dependent Raman Spectroscopic Study of Lead Halide Perovskite $MaPbCl_3$ Single Crystals / NAQVI Syed Furqan Ul Hassan[1], KO Jaehyeon[*1], AHN Changwon[2], KIM Taeheon[2] ([1]School of Nano Convergence, Hallym University, [2]Department of Physics and Energy Harvest Storage Research Center, University of Ulsan)

P1-co.213

Optical and electrical properties of $La_{1-x}Sr_xVO_3$ films and Schottky diodes of $La_{1-x}Sr_xVO_3$ /$SrVO_3$ ($x \leq 0.15$) / LEE Ho Sun[*1], OH Ye Jin[1], JUNG Dae Ho[1], PARK Woo Sung[1] ([1]Applied Physics, Kyung Hee University)

P1-co.214

Chemical control of dielectric permittivity in Ni-doped $BaTiO_3$ ceramics / DUONG Nguyen Xuan[1], LEE Soonil[2], BAE Jong-Seong[3], IHM Kyuwook[4], KIM Gyehyeon[5], LIM So Yeon[6], LEE Jongmin[7], LEE Sanghan[7], YANG Sang Mo[8], SOHN Changhee[5], KIM Ill Won[1], AHN Chang Won[1], KIM Tae Heon[*1] ([1]Department of Physics, University of Ulsan, [2]School of Materials Science and Engineering, Changwon National University, [3]Busan Center, Korea Basic Science Institute, [4]Pohang, Pohang Accelerator Laboratory, [5]Department of Physics, UNIST, [6]Department of Physics, Sookmyung Women's University, [7]School of Materials Science and Engineering, GIST, [8]Department of Physics, Sogang University)

P1-co.215

Impact of growth temperatures on ferroelectric hysteresis in epitaxial $Bi_{1/2}(Na_{0.82}K_{0.18})_{1/2}TiO_3$ thin films / JO Yong Jin[1], SHEERAZ Muhammad[1], DUONG Nguyen Xuan[1], KIM Gyehyeon[2], SOHN Changhee[2], KIM Ill Won[1], AHN Chang Won[1], KIM Tae Heon[*1] ([1]Department of Physics, University of Ulsan, [2]Department of Physics, UNIST)

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P1-co.301
Superconducting proximity effect and Aharonov–Bohm oscillations in Josephson junctions made of topological insulator nanoribbons. / KIM Rak-Hee[1], HOU Yasen[2], YU Dong[2], DOH Yong-Joo[*1] ([1]Department of Physics and Photon Science, GIST, [2]Department of Physics and Astronomy, University of California Davis)

P1-co.302
Theoretical Investigations of Graphene/Y_2C van der Waals Heterostructures / CHOI Chang-Gyu[1], KIM Junghwan[1], CHA Janghwan[1], HONG SukLyun[*1] ([1]Sejong University)

P1-co.303
Ab initio study of electric field effect on p–n junctions based on 2D van der Waals heterostructures / KIM Junghwan[1], HONG SukLyun[*1] ([1]Sejong University)

P1-co.304
Theoretical study of adsorption of acetonitrile molecules on Si(111)-(7x7) / HONG SukLyun[*1], PARK Jinwoo[1] ([1]Sejong University)

P1-co.305
Electron–phonon interaction on topological insulators / LEE Bumjoo[1,2], IN Chihun[2], NOH Tae Won[*1,2], CHOI Hyunyong[*2] ([1]Institute for Basic Science, Center for Correlated Electrons Systems, [2]Department of Physics and Astronomy, Seoul National University)

P1-co.306
Revivable vertical graphene resistive strain sensor for in vivo biocompatible application / NA Hong Ryeol[1], LEE Sunghun[*1] ([1]Department of Physics, Sejong University)

P1-co.307
The Morphological Characterization Study of Proton Exchange Membrane through Local Charge Density Measurement by EFM / KWON Osung[*1] ([1]Keimyung University)

P1-co.308
Effect of the sample work function on alkali metal dosing induced electronic structure change / JUNG Saegyeol[1,2], HUH Soonsang[1,2], KIM Changyoung[*1,2] ([1]Department of Physics and Astronomy, Seoul National University, [2]Center for Correlated Electron Systems, Institute for Basic Science)

P1-co.309

Bimodal switching current distribution and fractional Josephson effect in topological Josephson junctions / HWANG Tae-Ha[1], KIM Nam-Hee[1], KIM Hong-Seok[1], HOU Yasen[2], YU Dong[2], DOH Yong-Joo[*1] ([1]Department of Physics and Photon Science, GIST, [2]Department of Physics, UC Davis)

P1-co.310

Semiclassical Broadening in Quantum Dot Thermometry / KIM Uhjin[1], PARK Dongsung T.[2], CHOI Hyungkook[*1] ([1]Physics, Jeonbuk National University, [2]Physics, KAIST)

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P1-co.401
Magnetism of Heusler Compound $Mn_{3-x}Co_xGa$ ($0 \le x \le 1$) in Cubic and Tetragonal Phases / NGUYEN Quynh Anh Thi[1], HO Thi Huynh[1], HONG Soon Cheol[1], RHIM Sonny[*1] ([1]Department of Physics, University of Ulsan)

P1-co.402
First-principles study of two-dimensional Gd_2C electride / CHAE Jinwoong[1], KIM Gunn[*2] ([1]Department of Physics, Sejong University, [2]Department of Physics and Astronomy, Sejong University)

P1-co.403
Variations in Electronic Properties due to Defects in Monolayer GeS / CHOI Hyeongkyu[1], CHA Janghwan[1], HONG SukLyun[*1] ([1]Sejong University)

P1-co.404
Emergence of anomalous Hall effect from a compensated collinear ferrimagnetism / PARK Minkyu[1], HAN Guihyun[2], RHIM Sonny[*2] ([1]Research Institute of Basic Sciences, University of Ulsan, [2]Department of Physics, University of Ulsan)

P1-co.405
Very Strong Lithium-Polysulfide Anchoring Effect of Amorphous Carbon for Lithium-Sulfur Batteries / LEE Yong Chul[1], JUNG Sung Chul[*1] ([1]Pukyong National University)

P1-co.406
First Principle Study of the groove smoothing mechanism on a Cu(111) surface / LEE Hyung-June[1], KWON Young-Kyun[*1] ([1]Department of Physics, Kyung Hee University)

P1-co.407
Hydrogen evolution reaction of AgTe / KIM Heeju[1], KIM Gunn[*2] ([1]Department of Physics, Sejong University, [2]Department of Physics and Astronomy, Sejong University)

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P1-co.501
Double-well potential of hydrogen bonds revealed by NMR / KIM Se Hun[*1] ([1]Jeju National University)

P1-co.502
Observation of the back-donation pi-bonding states near the Fermi level with angle-resolved photoemission / JUNG Jongkeun[1], KIM Changyoung[*1], MUN Bongjin Simon[2] ([1]Department of Physics and Astronomy, Seoul National University, [2]Department of Physics and Photon Science, GIST)

P1-co.503
Design of frequency conversion device using 'membrane-in-the-middle' cavity optomechanics / PARK Chanhu[1], IHN Yong Sup[2], LEE Donghun[*1] ([1]Physics, Korea University, [2]Quantum Physics Technology Directorate, Agency for Defense Development)

P1-co.504
각분해 광전자 분광학을 이용한 $PbSb_2$ 전자구조 연구 / NOH Han-Jin[*1], JU Woo-Ri[*1] ([1]department of physics, Chonnam National University)

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
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P1-nu.001
Detailed study of string shoving model in PYTHIA8 / JI SuJeong[*1], LIM Sanghoon[1], KIM Eun-Joo[2], KIM Junlee[2] ([1]Department of Physics, Pusan National University, [2]Department of Physics, Jeonbuk National University)

P1-nu.002
Development of the prototype of Active Target Time Projection Chamber / KIM Yongsun[*1], KIM Geunwoo[1] ([1]Department of Physics, Sejong University)

P1-nu.003
Status report of a prototype BDC for the LAMPS system at the RAON / MOON Dong Ho[*1], HWANG Jaein[2], GWAK Piljun[1], KIM Hyunchul[1], HWANG Sanghoon[3], SEO Junhu[1] ([1]Physics Department, Chonnam National University, [2]Department of Physics, Korea University, [3]Department of Physics, KRISS)

P1-nu.004
The Data aquastion development of LAMPS starting counter / KWEON Min Jung[*1], DO Jaehyeon[1], LEE Hyungjun[1] ([1]Inha University)

P1-nu.005
Comparison of radio-photoluminescence with silver doped phosphate glass with different composition / KIM Hong Joo[*1], CHO Jaeyoung[1], ARYAL Pabitra[1] ([1]Department of Physics, Kyungpook National University)

P1-nu.006
Crystal Structure and Luminescence Study of Lithium Scandium Borate $Li_3Sc(BO_3)_2$ Phosphors / SAHA Sudipta[1], KIM Hong Joo[*1] ([1]Department of Physics, Kyungpook National University)

P1-nu.007
Investigation of ^{22}Mg levels by resonant scattering of ^{18}Ne+α / CHAE Kyung Yuk[*1], CHA S. M.[1], ABE K.[2], BAE S. H.[3], BINH D. N.[4], CHOI S. H.[3], DUY N. N.[1,5], GE Z.[6], HAHN K. I.[7,8], HAYAKAWA S.[2], HONG B.[9], IWASA N.[6,10], KAHL D.[11], KHIEM L. H.[12,13], KIM A.[14], KIM D.[7], KIM E. J.[15], KIM G. W.[14], KIM M. J.[1], KWAK K.[16], KWAG M. S.[1], LEE E. J.[1], LIM S. I.[14], MOON B.[9], MOON J. Y.[17], PARK S. Y.[14], PHONG V. H.[6], SHIMIZU H.[2], YAMAGUCHI H.[2], YANG L.[2] ([1]Physics Department, Sungkyunkwan University, [2]University of Tokyo, Center for

Nuclear Study, [3]Department of Physics and Astronomy, Seoul National University, [4]30 MeV Cyclotron Center, Tran Hung Dao Hospital, [5]Department of Physics, Dong Nai University, [6]Nishina Center, RIKEN, [7]Center for Exotic Nuclear Studies, Institute for Basic Science, [8]Department of Science Education, Ewha Womans University, [9]Department of Physics, Korea University, [10]Department of Physics, Tohoku University, [11]School of Physics and Astronomy, University of Edinburgh, [12]Institute of Physics, Vietnam Academy of Science and Technology, [13]Graduate University of Science and Technology, Vietnam Academy of Science and Technology, [14]Department of Physics, Ewha Womans University, [15]Division of Science Education, Chonbuk National University, [16]Department of Physics, Ulsan National Institute of Science and Technology (UNIST), [17]Rare Isotope Science Project, Institute for Basic Science)

P1-nu.008

Simulation study for quasi-mono energetic neutron source based on p^+ ^{9}Be/C using the GEANT4 / KIM Gui Nyun[*1], LEE Changhui[1] ([1]Department of Physics, Kyungpook National University)

P1-nu.009

Measurement of Gamma-ray Energy Spectrum of ^{176}Re and ^{180}Re isotopes produced from ^{nat}W(p,x) Reaction by 100-MeV Proton Accelerator / LEE Samyol[*1,3], YOON Jungran[2,3] ([1]Department of Radiological Science, Dongseo University, [2]Department of New Material Physics, Dong-A University, [3]Center of Radiological Environment & Health Science, Dongseo University)

P1-nu.010

Calculation of nuclear structure lying in the transition path between dynamic symmetries / LEE Su-youn[*1], LEE J.H.[1], LEE Young-jun[1] ([1]Division of Basic Sciences, Dong-Eui University)

P1-nu.012

The Comparison Study of Dose Distribution for 6He and ^{4}He Ion Beams / LIU Dong[*1], WOO Jong-Kwan[2], YANG Ji hae[2] ([1]BK21+, Jeju National University, [2]Physics Department, Jeju National University)

P1-nu.013

$Na_2(Mo_{1-x}W_x)_2O_7$scintillation crystal: Crystal growth, luminescence and scintillation properties / NGUYEN Luan Thanh[1], KHAN Arshad[1], KIM Hong Joo[*1,2] ([1]Department of Physics, Kyungpook National University, [2]The Center for High Energy Physics, Kyungpook National University)

P1-nu.014

Calculation of beam quality correction factor for different depths of SOBP using Monte Carlo simulations /권용철[1,2], JO Hyon-Suk[*1], 이세병[*2], 신욱근[3,4] ([1]Department of Physics, Kyungpook National University, [2]양성자치료센터, National Cancer Center, [3]방사선학과, Yonsei University, [4]., Université Bordeaux 1)

P1-nu.015

Synthesis and luminescence properties of Ce^{3+} doped $CsBaYB_6O_{12}$ phosphor / NTARISA Amos Vincent[1], DANIEL D. Joseph[1], KIM Hong Joo[*1], NGUYEN Duy Quang[1]
([1]Department of Physics, Kyungpook National University)

P1-nu.016

외기빔 PIXE 시스템을 이용한 대기 시료 내 중금속 분석 실증 연구 / KIM Kye-Ryung[*1], CHO Yong-Sub[1], KWON Hyeok-Jung[1], KIM Kui-Young[1], KANG Nam-Woo[1], DANG Jeong-Jeung[1] ([1]Korea Multi-purpose Accelerator Complex, KAERI)

P1-nu.017

Development and Calibration of a BC501A Liquid Scintillator for Neutron Detection / NGUYEN Duy Quang[1], KIM Hong Joo[*1], NTARISA Amos Vincent[1], KIM Jae Hyeok[1]
([1]Department of Physics, Kyungpook National University)

Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
Room: Virtual poster room

P1-op.001
LED 광원을 이용한 항공장애등 프레넬 렌즈설계 (Design of Fresnel Lens for Aircraft Warning Light Using LED Light Source) / KIM Jong Tae*1 ([1]Pukyong National University)

P1-op.002
온도측정을 위한 적외선 광학계 설계에 관한 연구 (InfraRed Optical System Design for Temperature Measurements) / KIM Jong Tae*1 ([1]Pukyong National University)

P1-op.003
Few-femtosecond nanoplasmonic near-field dynamics studied by interferometric time- and energy-resolved photoemission electron microscopy / GLISERIN Alexander[2,3], CHEW Soo Hoon[2,3], CHOI Sungho[1,3], KIM Seungchul[2], KIM Dong Eon*[1,3] ([1]Physics Department, POSTECH, [2]Department of Optics and Mechatronics Engineering, Pusan National University, [3]Max Planck/POSTECH Korea Research Initiative, Max Planck Center for Attosecond Science)

P1-op.004
Temperature dependence of vermilion pigments in the terahertz region / LEE Ji Eun[1], KIM Jangwon[1], JUNG Taek Sun[1], KIM Jae Ha[1], KIM Jae Hoon*[1] ([1]Department of Physics, Yonsei University)

P1-op.005
Quantitative analysis of vermilion pigments using terahertz time-domain spectroscopy / JUNG Taek Sun[1], KIM Jangwon[1], LEE Ji Eun[1], KIM Jae Ha[1], KIM Jae Hoon*[1] ([1]Department of Physics, Yonsei University)

P1-op.006
Angle-insensitive reflective structural color filters creating additive colors / JUNG Incheol[1], KWAK Hojae[1], KIM Hyeonwoo[1], JEON Jisoo[1], LEE Kyu-Tae*[1] ([1]Department of Physics, Inha University)

P1-op.007
고출력 백색광원용 세라믹 형광체 플레이트의 기공 크기에 따른 발광 분포 및 효율 분석 / KIM Kyuheon[1], JUNG Gunwoo[1], JEONG Wonchae[1], JEON Boram[1], KIM Jaesun[1], SUNG Yujin[1], MOON Youngboo[2], SONG Jung Hoon*[1] ([1]Kongju National University, [2]UJL, (주)UJL)

P1-op.008

DED 방식 금속 3D 프린팅 공정에서의 멜트풀 파장 특성 분석 / JANG Yea Sol[1], YOON Hyung-Do[1], BANG Keon Hwan[2], KIM Young Soo[2], LEE Kyung Ha[2], SEO Yong Gon[*1] ([1]Nano Convergence Technology Research Center, KETI, [2]DENT R&D Center, DE&T Co., Ltd)

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On-line Discussion(mandatory): Nov. 5, 13:00-13:50 & Nov. 6, 14:00-14:50
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P1-pa.101
Search for Darck Sector with Belle Experiment / CHO Sungjin[1], KIM Yongkyu[1], KWON Youngjoon[*1] ([1]Physics, Yonsei University)

P1-pa.102
DAQ Archiver management for Belle II Detector Operation / KIM Yongkyu[1], CHO Sungjin[1], KWON Youngjoon[*1] ([1]Physics, Yonsei University)

P1-pa.103
Shielding configuration to reduce beam-related gamma backgrounds at JSNS^2 / JUNG Da Eun[*1], KIM S.B.[1], YU I.T.[1], ROTT C.[1], JEON H.[1], JEON S.[1], G. ROEIILINGHOFF G.[1], KIM E.J.[2], KIM J.Y.[3], LIM I.T.[3], JOO K.K.[3], MOON D.H.[3], SHIN C.D.[3], ZOHAIB A.[3], JANG M.C.[3], CHOI J.W.[3], CHOI J.H.[4], PAC M.Y.[4], JANG H.I.[5], YEO I.S.[5], JANG J.S.[6], KIM W.[7], GOH J.H.[8], YU C.[8], LEE S.[8], KANG S.K.[9], CHEOUN M.K.[10] ([1]physics, Sungkyunkwan University, [2]Division of Science Education, Physics major, Jeonbuk National University, [3]Department of Physics, Chonnam National University, [4]Department of Radiology, Dongshin University, [5]Department of Fire Safety, Seoyeong Univsersity, [6]Division of liberal art and science, GIST, [7]Department of Physics, Kyungpook National University, [8]Department of Physics, Kyung Hee University, [9]School of Liberal Arts, Seoul National University of Science and Technology,10Department of Physics, Soongsil University)

P1-pa.104
Report on an LED run of the JSNS^2 experiment / YU Intae[*1], JEON Sanghoon[1], KIM E J[2], KIM J Y[3], LIM I T[3], JOO K K[3], MOON D H[3], SHIN C D[3], ZOHAIB A[3], JANG M C[3], CHOI J W[3], CHOI J H[4], PAC M Y[4], JANG H I[5], YEO I S[5], JANG J S[6], KIM W[7], KIM S B[1], ROTT C[1], JEON H[1], JUNG D E[1], ROEIILINGHOFF G[1], GOH J[8], YOO C[8], LEE S[8], KANG S K[9], CHEOUN M K[10] ([1]Department of Physics, Sungkyunkwan University, [2]Division of Science Education, Physics Major, Jeonbuk National University, [3]Department of Physics, Chonnam National University, [4]Department of Radiology, Dongshin University, [5]Department of Fire Safety, Seoyeong Univsersity, [6]Division of liberal art and science, GIST, [7]Department of Physics, Kyungpook National University, [8]Department of Physics, Kyung Hee University, [9]School of Liberal Arts, Seoul National University of Science and Technology, [10]Department of Physics, Soongsil University)

P1-pa.105
A study of Dark Matter at e^+e^- collider using MadGraph / PARK Kihong[1], CHO Kihyeon[*1] ([1]UST, KISTI)

P1-pa.106

Cosmic gamma Background study at the JSNS[2] / JEON Hyoungku[*1], ROTT Carsten[*1], KIM E.J[2], KIM J.Y[3], LIME I.T[3], JOO K.K[3], MOON D.H[3], SHIN C.D[3], ZOHAIB A.[3], JANG M.C[3], CHOI J.W[3], CHOI J.H[4], PAC M.Y[4], JANG H.I[5], YEO I.S[5], JANG J.S[6], KIM W[7], KIM S.B[1], YU I.T[1], JEON S.H[1], JUNG D.E[1], ROEIILINGHOFF G[1], GOH J.H[8], YU C.[8], LEE S.[8], KANG S.K[9], CHEOUN M.K[10] ([1]department of physics, Sungkyunkwan University, [2]Division of Science Education, Jeonbuk National University, [3]Department of Physics, Chonnam National University, [4]Department of Radiology, Dongshin University, [5]Department of Fire Safety, Seoyeong Univsersity, [6]Division of liberal art and science, GIST, [7]Department of Physics, Kyungpook National University, [8]Department of Physics, Kyung Hee University, [9]School of Liberal arts, Seoul National University of Science and Technology, [10]Department of Physics, Soongsil University)

P1-pa.107

A Study on the Way to Build an Affordable Storage System in the Big Data Age with the Experience of Operating the WLCG CMS Tier-2/3 Center / RYU Geonmo[*1] ([1]Global Science Experimental Data Hub Center (GSDC), Korea Institute Science and Technology Information)

P1-pa.108

Study of MET Significance for the Phase-2 Upgrade of the CMS Level-1 Trigger / MOON Chang-Seong[*1], KIM Daekwon[1] ([1]Department of Physics, Kyungpook National University)

P1-pa.109

CMS RPC offline software development and quality monitoring / LEE YOUNGHOON[*1] ([1]DEPARTMENT OF PHYSICS, Sungkyunkwan University)

P1-pa.110

Sipm design optimization by TCAD simulation for the dual-readout calorimeter / SON Jonghui[1], KIM Bobae[*1], LEE Sehwook[1], LEE Junghyun[1], KO Sanghyun[2], KIM Doyeong[3], LEE Jason[3], LEE Yunjae[3], PARK Jongsuk[3], RYU Minsang[3], WATSON Ian[3], EO Yan[4], HA Seungkyu[4], HWANG Kyuyoung[4], KIM Minsoo[4], YOO Hwidong[4] ([1]Kyungpook National University, [2]Department of Physics, Seoul National University, [3]Department of Physics, University of Seoul, [4]Department of Physics, Yonsei University)

P1-pa.111

Unfolding Weyl invariants / KIM Yujin[*1] ([1]Kyung Hee University)

P1-pa.112

Asymptotic Symmetries of Conformal Gravity / KIM Sejin[*1], JOUNG Euihun[1] ([1]Physics, Kyung Hee University)

P1-pa.113

The higher spin operator product expansion in the N=3 Kazama-Suzuki Model / LEE Soa[*1] ([1]Physics, Kyungpook National University)

P1-pa.114
Higgs inflation as non-linear sigma models and its UV completion / LEE Hyun Min*[1], MENKARA Adriana Guerrero[1] ([1]Department of Physics, Chung-Ang University)

P1-pa.115
Light mediators for dark matter beyond Z^2 parity / LEE Hyun Min*[1], KIM Seongsik[1], KANG Yoo-Jin[1] ([1]Department of Physics, Chung-Ang University)

P1-pa.116
Four-form flux bridging between Higgs boson and dark matter / LEE Hyun Min*[1], SONG Ji Seon[1], KANG Yoo Jin[1], MENKARA Adriana Guerrero[1] ([1]Department of Physics, Chung-Ang University)

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P1-pa.201

Study of measured charge variation using radioactive sources at RENO / JOO Kyung Kwang[*1], KIM Ba-Ro[1], GWAK Piljun[1], KIM Jaeyool[1], MOON Dongho[1], SHIN Changdong[1], JOHAAIB Atif[1], KIM Wooyoung[2], PAC Myoung Youl[3], CHOI Juneho[3], JANG Hanil[4], KWON Eunhyang[5], KIM Sang yong[5], KIM Soo-Bong[5], SEO Hyunkwan[5], LEE Dongha[5], LEE Hyungi[5], KIM Jonggun[6], SEO Jiwoong[6], YU Intae[6], JEON Sanghoon[6], JUNG Daeun[6], LIM Intaek[7], JANG Jeeseung[8], YOO Jonghee[9], YANG Byeongsu[9], JU Kiwon[9], YU Minsang[9], YOON Seok-Gyeong[9] ([1]Department of Physics, Chonnam National University, [2]Department of Physics, Kyungpook National University, [3]Department of Radiology, Dongshin University, [4]Department of Fire Safety, Seoyeong University, [5]Department of Physics and Astronomy, Seoul National University, [6]Department of Physics, Sungkyunkwan University, [7]Department of Physics Education, Chonnam National University, [8]GIST College, Gwangju Institute of Science and Technology, [9]Department of Physics, Korea Advanced Institute of Science and Technology)

P1-pa.202

Deep Learning For Low Energy Noise Rejection From COSINE-100 Data / LEE Seung Mok[*1], KO Young Ju[2], LEE Hyun Su[2], KIM Kyoung Won[2], KIM Sun Kee[1], CHOI Jaejin[1], JOO Han Wool[1] ([1]Department of Physics & Astronomy, Seoul National University, [2]Center For Underground Physics, IBS)

P1-pa.203

The Camera System for the IceCube Upgrade / LEE Jiwoong[*1], ROELLINGHOFF Gerrit[1], KANG Woosik[1], TOENNIS Christoph[1], ROTT Carsten[1] ([1]Department of Physics, Sungkyunkwan University)

P1-pa.205

Design of target and background study for a magnetic monopole experiment / LEE Junghyun[*1], LEE Sehwook[1], HUH Changgi[1], YE Ryonghae[1] ([1]Kyungpook National University)

P1-pa.206

Photon propagation simulation in the crystal scintillator / KIM Jinyoung[*1], KAN Junho[1], HA Chang Hyon[1] ([1]Physics, Chung-Ang University)

P1-pa.207

A way to reduce the aging of a solid state scintillator / WOO Jong-Kwan[*1], LIU Dong[2], YANG Jihye[1] ([1]Department of Physics, Jeju National University, [2]Medical Physics Laboratory, Jeju National University)

P1-pa.208
Photon simulations for AMoRE-Pilot experiment / MAILYAN Bagrat[*1] ([1]Center for Ungerground Physics, IBS)

P1-pa.209
Energy resolution study for AMoRE-Pilot experiment / MAILYAN Bagrat[*1] ([1]Center for Ungerground Physics, IBS)

P1-pa.210
Rock gamma simulation for AMoRE / KIM Hong Joo[*1], HA Daehoon[1], JEON Eunjoo[2], OH Yo0min[2] ([1]Department of Physics, Kyungpook National University, [2]CUP, IBS)

P1-pa.211
Simulation study of calibration system for AMoRE-II experiment / LEE Moo Hyun[*1,2], SEO Jeewon[1,2], JEON Eunju[1] ([1]Center for Underground Physics (CUP), IBS, [2]IBS School, University of Science and Technology (UST))

P1-pa.212
Novel Silicon Photomultiplier Tube (SiPMT) for KNO / ANJUM Faizan[1], NASIR Hamza[1], LEE Jik[1], KIM Hong Joo[*1] ([1]Department of Physics, Kyungpook National University)

P1-pa.213
Development of vertex reconstruction and particle identification tool for KNO / SEO Jiwoong[*1], YU Intae[1], KWON Eunhyang[1], YU SeongHyeon[1], HONG JaeJin[1], KIM Hyunsoo[3], JANG JeeSeung[4], LEE Youngmin[2] ([1]Department of Physics, Sungkyunkwan University, [2]Department of Physics, KAIST, [3]Department of Physics and Astronomy, Sejong University, [4]Department of Physics and Photon Science, GIST)

P1-pa.214
Reconstruction of neutrino energy in the KNO detector / YU Intae[*1], YU SeongHyeon[1], KIM HyunSoo[2], JANG JeeSeung[3], KWON EunHyang[1], SEO JiWoong[1], LEE YoungMin[4], HONG JaeJin[1] ([1]Department of Physics, Sungkyunkwan University, [2]Department of Physics and Astronomy, Sejong University, [3]Department of Physics and Photon Science, GIST, [4]Department of Physics, KAIST)

P1-pa.215
Kovar Alloy Oxidation and Baking System for the Fabrication of the Photocathode and SiPMT Assembly. / NASIR Hamza[1], ANJUM Faizan[1], LEE Jik[1], KIM Hong Joo[*1] ([1]Department of Physics, Kyungpook National University)

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P1-pl.101
Optimization of external quadrupole field in free-electron laser / KIM Tae hoon[*1], KIM Ki-Bum[1] ([1]Kangwon National University)

P1-pl.102
레이저유도형광 진단을 이용한 홀추력기 플라즈마 내 Xe II 이온의 2차원 거동 연구 / DOH Guentae[1], LEE Dongho[1], KIM Youngho[2], CHOE Wonho[*1,3] ([1]Department of physics, KAIST, [2]Space Exploration Engineering Program, Department of Aerospace Engineering, KAIST, [3]KAIST)

P1-pl.103
Characterization of the plasma dipole oscillation in strongly magnetized plasmas / SONG HyungSeon[1], KANG Teyoun[1], KUMAR Manoj[1], PARK Dohyun[1], HUR Min Sup[*1] ([1]Physics, UNIST)

P1-pl.104
KOMAC 양성자가속기의 200 MeV 업그레이드를 위한 극저온 시스템 기초 설계 연구 / KIM Han Sung[*1], KWON Hyeok Jung[1], DANG Jeong Jeung[1], LEE Seung Hyun[1], KIM Kyung Hyun[1], JUNG Won Hyeok[1], CHO Yong Sub[1] ([1]KOMAC, KAERI)

P1-pl.105
Numerical Study on the residual gas molecules in KOMAC LEBT using Molflow+ / KIM DongHwan[1,2], DANG Jeongjeung[*1], KWON Hyeok-Jung[1], KIM Han-Sung[1], LEE Seung-Hyun[1], CHOE Kyumin[1], CHUNG Kyoung-Jae[2], HWANG Yong-Seok[2] ([1]KAERI, [2]Department of Nuclear Engineering, Seoul National University)

P1-pl.106
A new configuration for helium atmospheric pressure plasma jet / TRAN Tuyen Ngoc[1], KIM Bumsoo[1], LEE Wonwook[*1,2], OH Cha-Hwan[1] ([1]Department of Physics, Hanyang University, [2]Research Institute of Natural Science, Hanyang University)

P1-pl.107
Design and First Experimental Results of a Beam Extraction system of 2.45 GHz Electron Cyclotron Resonance Ion Source for Compact Neutron Generator / KIM Tae-Seong[*1], JEONG SeungHo[1], JO JongGab[1], KIM Sun-Ho[1], JUNG Bong-Ki[1], HUH Sung-Ryul[1], CHANG Doo-Hee[1], CHANG Dae-Sik[1] ([1]KAERI)

P1-pl.108

Gas cell development for laser plasma acceleration by using fs-laser machining / KIM Hyunil Benjamin[1], KIM JinJu[1], PHUNG LING JEN Vanessa[1], PARK JunGyu[1], ROH KyungMin[1], KANG KeeKon[1], SUK Hyyong[*1] ([1]Dept. of Physics and Photon Science, GIST)

P1-pl.109

유전장벽형 유연 플라즈마 파우치 개발 및 특성 조사 / KIM Jinwoo[1], PARK Sanghoo[2], CHOE Wonho[*1] ([1]KAIST, [2]Plasma Technology Research Center, NFRI)

P1-pl.110

Measuring electric fields between two conducting parallel plates using a linear electro-optic effect applicable to a plasma assisted combustion system / CHOI Seongmin[1], KYRITSIS Dimitrios[2], CHOE Wonho[1], GHIM Young Chul[*1] ([1]KAIST, [2]Department of Mechamical Engineering, Khalifa University)

P1-pl.111

Generation of laser induced helium plasma at atmospheric pressure / TRAN Tuyen Ngoc[1], KIM Bumsoo[1], LEE Wonwook[*1,2], OH Cha-Hwan[1] ([1]Department of Physics, Hanyang University, [2]Research Institute of Natural Science, Hanyang University)

P1-pl.112

Single Crystal Dispersion Interferometer 데이터의 베이지안 기반 해석을 위한 forward model 개발 / LEE Jaeseok[1], LEE Donggeun[1], LEE Kwan Chul[2], GHIM Young Chul[*1] ([1]KAIST, [2]플라즈마진단연구팀, NFRI)

P1-pl.113

Design and Evaluation of Impedance Transformer to Improve 2.45 GHz Microwave Coupling into Plasmas in Electron Cyclotron Resonance Ion Source (ECRIS) / JO Jong Gab[*1], JEONG Seung Ho[1], KIM Sun-Ho[1], KIM Tae-Seong[1] ([1]Nuclear Fusion Technology Development Division, KAERI)

P1-pl.114

Preliminary study of high energy beam transport for 200 MeV energy upgrade of KOMAC proton linac / LEE Seunghyun[*1], KWON Hyeok-Jung[1], DANG Jeong-Jeung[1], KIM Han-Sung[1], CHO Yong-Sub[2] ([1]KOMAC, KAERI, [2]Nuclear Physics Application Research Division, KAERI)

P1-pl.115

KOMAC 200 MeV 에너지 업그레이드를 위한 HWR 극저온 모듈 제작 일정 계획 / CHO Yong-Sub[*1], KWON Hyeok-Jung[2], KIM Han Sung[2], LEE Seunghyun[2], DANG Jeongjeung[2] ([1]Nuclear Physics Application Research Division, KAERI, [2]KOMAC, KAERI)

P1-pl.116
50 W급 저전력 홀추력기의 자기장 형상에 따른 성능 및 이온빔 특성 연구 / LEE Dongho[1], KIM Holak[2], DOH Guentae[1], KIM Youngho[3], PARK Jaehong[3], CHOE Wonho[*4] ([1]Department of Physics, KAIST, [2]Satellite Research Directorate, KARI, [3]Space Exploration Engineering Program, KAIST, [4]KAIST)

P1-pl.117
제한된 시선을 가진 ITER 분광계 시스템의 토카막 토모그래피 기법 개발 / HAN YoonSeong[2], HWANG Junghoo[2], CHOE Wonho[*1,2] ([1]KAIST, [2]Department of Nuclear and Quantum Engineering, KAIST)

P1-pl.118
하이브리드 Particle-In-Cell 전산모사를 통한 100 W급 이하 저전력 홀추력기의 채널 내외 플라즈마 특성 연구 / PARK Jaehong[1], LEE Dongho[2], DOH Guentae[2], KIM Youngho[1], RYU Kwangsun[4], CHOE Wonho[*3,5] ([1]Space Exploration Engineering Program, KAIST, [2]Department of Physics, KAIST, [3]Department of Nuclear and Quantum Engineering, KAIST, [4]Satellite Technology Research Center, KAIST, [5]KAIST)

P1-pl.119
저주파에서 발생되는 대기압 플라즈마 젯의 기초 진단 및 액체 내 활성 종들의 변화 / BAE JINHEE[1], LEE JAESUN[1], JEONG SOJEONG[1], JOH HEAMIN[*1], CHUNG TAEHUN[1] ([1]physics, Dong-A University)

P1-pl.120
지구 저궤도 플라즈마 환경모사를 위한 링-커스프 자기장 기반의 플라즈마 발생장치 개발 및 플라즈마 특성 조사 / KIM Youngho[4], DOH Guentae[2], LEE Dongho[2], RYU Kwangsun[3], CHOE Wonho[*1,4] ([1]KAIST, [2]Department of Physics, KAIST, [3]Satellite Technology Research Center, KAIST, [4]Department of Aerospace engineering, space exploration engineering program, KAIST)

P1-pl.121
200 MeV 에너지 업그레이드를 위한 초전도 저온용기의 자기차폐 설계 기초연구 / KWON Hyeok-Jung[*1], KIM Han-Sung[1], DANG Jeong-Jeung[1], LEE Seunghyun[1], CHO Yong-Sub[2] ([1]KOMAC, KAERI, [2]Nuclear Physics Application Research Division, KAERI)

P1-pl.122
Development of thin-foil based infrared bolometer system in KSTAR / BAE SEHYUN[1], LEE MIN UK[2], THATIPAMULA SHEKAR GOUD[2], KIM JAYHYUN[3], YUN GUNSU[*1,2] ([1]Department of Physics, POSTECH, [2]Division of Advanced Nuclear Engineering, POSTECH, [3]MHD Stability Research Team, NFRI)

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Room: Virtual poster room

P1-pl.201
유도 결합 플라즈마에서 He 2^3S 준 안정 상태 원자 밀도에 따른 E-H 모드 전이에 관한 연구 / SHIM Sungyong[1], OH Cha Hwan[1], LEE Wonwook[*1,2] ([1]Department of physics, Hanyang University, [2]Research Institute of Natural Science, Hanyang University)

P1-pl.202
제트 플라즈마 전산모사를 통한 전기풍(Electric wind) 발생 연구 / LEE Hyun Gyu[1], PARK Sanghoo[2], KIM Jinwoo[1], CHOE Wonho[*1] ([1]KAIST, [2]Plasma Technology Research Center, NFRI)

P1-pl.203
Al Hugoniot from model calculations including semicore electrons based on density functional theory / JEONG Inki[1], HAHN Sang June[1], YOON Young-Gui[*1] ([1]Chung-ang University)

P1-pl.204
Development of one dimensional full wave spectral code for the ICRF H&CD of a nuclear fusion reactor / KIM Sun Ho[*1], KWAK Jong Gu[2] ([1]Nuclear Physics Application Research Division, KAERI, [2]Department of Heating and Current Drive Research, NFRI)

P1-pl.205
Experimental Observations of Interaction between Runaway Electrons and Fast Waves in Versatile Experiment Spherical Torus (VEST) / JO Jong Gab[*1], LIM Soobin[2], KIM SeongCheol[2], LEE Soong-Hyeong[2], KIM Sun-Ho[1], HWANG Yong-Seok[2] ([1]Nuclear Fusion Technology Development Division, KAERI, [2]Department of Nuclear Engineering, Seoul National University)

P1-pl.206
인공신경망을 이용한 토카막 플라즈마 내 불순물 수송 코드 백워드 모델 개발 / YOON Junhyeok[1,2], SONG Inwoo[2,3], SHIN Haewon[1,2], HAN Yoonseong[1,2], HWANG Junghoo[1,2], CHOE Wonho[*1,2] ([1]Department of Nuclear and Quantum Engineering, KAIST, [2]Impurity and Edge plasma Research Center, KAIST, [3]Department of Physics, KAIST,4KAIST)

P1-pl.207
Development of 2D Plasma/Neutral Transport Simulation System from Core to Wall in KSTAR / LEE Jae Gon[1], PARK Jin Myung[2], LEE Chan Young[1], NA Yong Su[*1] ([1]Nuclear Engineering, Seoul National University, [2]Fusion Energy Division, Oak Ridge National Laboratory)

P1-pl.208
Disruption prediction in KSTAR using Neural Network / PARK J.K.[1], LEE Jeongwon[2], LEE Y.S.[1], NA Yong-Su[*1] ([1]Seoul National University, [2]National Fusion Research Institute)

P1-pl.209
The Cs-free Negative Hydrogen Ion Source Project at KAERI for Future N-NBI Systems / HUH Sung-Ryul[*1], JUNG Bong-Ki[1], PARK Min[1], JEONG Seung Ho[1], KIM Tae-Seong[1], CHANG Dae-Sik[1] ([1]Nuclear Physics Application Research Division, KAERI)

P1-pl.210
Comparison of KSTAR impurity measurements with neoclassical impurity transport theory / LEE Hyojong[*1] ([1]Hanyang University)

P1-pl.211
Study of Hydrogen-isotope permeation in Tungsten for fusion applications / SEO Hee Jeong[1,4], KIM Hee Soo[1], BYEON Woo Jun[2], CHUNG Bo-Hyun[3], NOH Seung Jeong[*1,4] ([1]Dankook University, [2]Center for Scientific Instrumentation, KBSI, [3]Department of R&D, KAPRA, [4]Department of Physics, Dankook University)

P1-pl.212
Investigation of the n=0 MHD resistive wall mode in a tokamak with the effects of a negative triangular plasma shape / SONG Junhyuk[*1], LEE Hyojong[1], LEE Jungpyo[1] ([1]Nuclear Engineering, Hanyang University)

P1-pl.213
Geometric effect on profile flattening of magnetic island in Tokamak / TAE Wonjun[2], YOON Eisung[*1], HUR Min Sup[2] ([1]Department of Nuclear Engineering, UNIST, [2]Department of Physics, UNIST)

P1-pl.214
KSTAR H-mode 플라즈마에서 D_2 연료개스 및 Ne 개스 주입에 의한 경계 플라즈마 물성 변화 분석 / HWANG Junghoo[1,2], PARK Jae-Sun[3], PITTS Richard[3], LEE Hyungho[4], HAN Yoon Seong[1,2], JUHN June-Woo[4], BAK Jun-Gyo[4], HONG Suk-Ho[4], CHOE Wonho[*1,2] ([1]Department of Nuclear and Quantum Engineering, KAIST, [2]Impurity and Edge plasma Research Center, KAIST, [3]Science division, ITER, [4]국가핵융합연구소, NFRI, [5]KAIST)

P1-pl.215
Development of a full-orbit plasma particle trajectory code for the wave-particle resonance of energetic ions in a tokamak / JIHEON Song[*1], JUNGPYO Lee[1] ([1]Nuclear Engineering, Hanyang University)

P1-pl.216

토카막 플라즈마 진단에 활용되는 분산간섭계의 광정렬 문제를 개선하는 Single Crystal Dispersion Interferometer(SCDI)의 개발 및 설치 / LEE Dong-Geun[1], LEE Jae-Seok[1], LEE K.C.[2], JUHN J.-W.[2], GHIM Young Chul[*1] ([1]KAIST, [2]Advanced Plasma Research Division, NFRI)

P1-pl.217

Introducing unstructured mesh support to a developing gyrokinetic code, gKPSP2 / YOON Eisung[*1], JO Gahyung[2], PARK Jae Yun[1], SEO Janghoon[2], KWON Jae-Min[2] ([1]Department of Nuclear Engineering, UNIST, [2]Advanced Physics Research Division, NFRI)

P1-pl.218

Development of a Fokker-Planck code with Rosenbluth potentials using MFEM library / LEE Hyeonjun[*1], YOON Eisung[2], LEE Jungpyo[1] ([1]Department of Nuclear Engineering, Hanyang University, [2]School of Mechanical, Aerospace, and Nuclear Engineering, UNIST)

P1-pl.219

Effects of target materials on the heat flux at divertors in KSTAR / KWON KyuBeen[1], RA Ookjoo[1], HUR Min Sup[*1] ([1]Physics, UNIST, [2]Divertor System, NFRI)

P1-pl.220

KSTAR 플라즈마에 주입한 크립톤 밀도에 따른 ELM 완화 및 내부수송장벽 생성 현상 연구 / CHOE Wonho[*2,3], SHIN Haewon[2,3], YOON Junhyeok[2,3], HWANG Junghoo[2,3], HAN Yoon Seong[2,3], JANG Juhyeok[4] ([1]KAIST, [2]Department of Nuclear and Quantum Engineering, KAIST, [3]Impurity and Edge plasma Research Center, KAIST, [4]Plasma Diagnostics Research Team, National Fusion Research Institute)

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P1-se.101
Magnetic field controlling of the thermoelectric efficiency under spin density waves / YUN Jae-Hyun[*1], RHYEE JongSoo[1] ([1]applied physics department, Kyung Hee University)

P1-se.102
에너지 수확을 위해 마찰전기 폴리머에 내장된 ZnO 나노 플레이크의 합성 및 특성 / MANCHI Punnarao[2], GRAHAM Sontyana Adonijah[2], HARISHKUMARREDDY Patnam[2], YU Jae Su[*1,2] ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Engineering, Kyung Hee University)

P1-se.103
A Highly Efficient Soot Based Bilayer Solar Vapor Generator / RASHID Mamoon Ur[1], TAHIR Zeeshan[1], KIM Sungdo[1], PARK Jongwoo[1], PARK Jin Jae[1], KIM Yong Soo[*1] ([1]physics / Semiconductor device Research, University of Ulsan)

P1-se.104
Simple and Facile Fabrication of Anion Vacancy Induced MoO_{3-x} Catalysts for Enhanced Hydrogen Evolution Activity / JO Seunghwan[1], HONG John[2], SOHN Junginn[*1] ([1]Dongguk University, [2]School of Materials Science and Engineering, Kookmin University)

P1-se.105
Electron beam engineered monolayer MoS_2 for an efficient hydrogen evolution reaction electrocatalyst / PARK Jongwoo[1], NGUYEN Duc Anh[1], KIM Sungdo[1], LE Tam Chinh[1], KIM Yongsoo[*1] ([1]Semiconductor Device/Physics Department, University of Ulsan)

P1-se.106
리튬 이온 배터리용 음극재로 Fe_2VO_4 나노 구 구조의 합성 및 특성 / ASHOK Kumar Kakarla[2], D. Narsimulu[1], ANKI Reddy Mule[2], YU Jae Su[*1,2] ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Engineering, Kyung Hee University)

P1-se.107
리튬 이온 배터리의 음극으로 바인더가 없는 3차원 Co_3O_4/Ni 복합 구조의 합성 및 특성 / ANKI Reddy Mule[2], D. Narsimulu[1], ASHOK Kumar Kakarla[2], YU Jae Su[*1,2] ([1]Department of Electronic Engineering, Kyung Hee University, [2]Department of Electronics and Information Convergence Engineering, Kyung Hee University)

P1-se.108

Cubic CdS 단결정 박막의 엘립소메트리 및 투과 측정 / LEE Jongwon[*2], KIM Daejung[1] ([1]Department of New Materials Engineering, Hanbat National University, [2]School of Basic Sciences, Hanbat National University)

P1-se.109

Characteristics of Ga_2O_3 solar-blind photodetector fabricated by pulsed laser deposition / JEONG Sangha[1], VU Oanh Thi Kim[1], KIM Eun Kyu[*1] ([1]Department of Physics, Hanyang University)

P1-se.110

Effect of internal electric field according to the strain of InAsSb/GaSb interface / KIM Jong Su[*1], KWAK Minsoo[1], JO Hyun-Jun[1], KIM Yeong ho[2], LEE Sang Jun[2] ([1]Yeungnam University, [2]크리스 Micro & Smart Devices Team)

P1-se.111

건식공정으로 합성한 $MaPbI_3$ 페로브스카이트 박막의 전기적 및 광학적 물성 / AHN Chang Wan[1], 김영환[2], 한일기[2], KIM Eun Kyu[*1] ([1]Department of Physics, Hanyang University, [2]나노포토닉스연구센터, KIST)

P1-se.112

디지털 합금 InGaAlAs 다중 양자 우물의 열처리 온도에 따른 광학적 특성 연구 / KIM Jong Su[*1], PARK Gyoung Du[1], JO Hyun Jun[1], RYU Mee Yi[2], SONG Jin Dong[3] ([1]Yeungnam University, [2]department of physics, Kangwon National University, [3]Center for Opto-Electronic Materials and Devices, KIST)

P1-se.113

Wafer-scale homogenous growth of high quality tungsten disulfides via surfactant-assisted metal-organic chemical vapor deposition / KOO Do Hyoung[1], KANG Hee Seong[1], LEE Chul-Ho[*1] ([1]Korea University)

P1-se.114

Optical and magnetic properties in Mn-doped layered 2D n-butylammonium bromide single crystals / BYUN Hye Ryung[1], SO Hyeon-Kyeong[1], LEE Sang-Eon[1], JUNG Myung-Haw[1], JANG Joon Ik[*1] ([1]Physics, Sogang University)

P1-se.115

Amplified spontaneous emission from a bulk $CsPbBr_3$ single crystal at Room temperature / JANG Joon Ik[*1], KIM Donggyu[1], RYU Hongsun[1], LIM Soo Yeon[1], MCCALL Kyle[2,3], KANATZIDIS Mecouri[2], CHEONG Hyeonsik[1] ([1]Physics, Sogang University, [2]Department of Chemistry, Northwestern University, [3]Department of Chemistry and applied biosciences, Laboratory of Inorganic chemistry)

P1-se.116
광섬유 통신용 파장의 단광자 생성을 위한 양자점 성장 / SONG JIN DONG*[1], PARK SUK IN[1] ([1]Center for Opto-Electronic Materials and Devices Research, KIST)

P1-se.117
Far-field Fluorescence Mapping Using a Home-made Single Laser Cantilever-type Near-field Scanning Optical Microscope / NG'ANG'A Douglas Kagoiya[1], ALI Luqman[1], LEE Yoong Joong[1], BYEON Clare Chisu*[1] ([1]School of Mechanical Engineering, Kyungpook National University)

P1-se.118
전력소자용 GaN on Si 과 SiC on SiC 반도체의 ex-situ 깊이 의존성 변형률 분포에 대한 분석 / JUNG Gunwoo[1], KIM Kyuheon[1], JEONG Wonchae[1], JEON Boram[1], KIM Jaesun[1], SUNG Yujin[1], MOON Youngboo[2], SONG Jung Hoon*[1] ([1]Kongju National University, [2]UJL, (주)UJL)

P1-se.119
Optical Characterization of InGaAsP/InGaAs tandem solar cells with excitation wavelength. / KIM Jong Su*[1], HEO Da young[1], JO Hyun Jun[1], KIM Yeong Ho[2], LEE Sang Jun[2] ([1]Yeungnam University, [2]Micro & Smart Devices Team, KRISS)

P1-se.120
Role of organic surfactant decomposition via O_2 pre-annealing in CVD-grown hexagonal WS_2 / AN GWANGHWI[1], LEE Hyun Seok*[1] ([1]Department of Physics, Chungbuk National University)

P1-se.121
Nonlinear optical properties of β-Ga_2O_3 as probed by wavelength-dependent optical excitation spectroscopy / CHO Jeong Bin[1], JUNG Gunwoo[2], KIM Kyuheon[2], KIM Ji Hoon[1], HONG Soon-Ku[3], SONG Jung-Hoon[2], JANG Joon Ik*[1] ([1]Physics, Sogang University, [2]Physics, Kongju National University, [3]Materials science and engineering, Chungnam National University)

P1-se.122
Enhancement of surface morphology and electrical properties of Cd_3As_2 via photo-assisted molecular beam epitaxy / PARK Kwangwook*[1], RICE Anthony D[2], ALBERI Kirsin[2] ([1]Advanced Materials Engineering, Jeonbuk National University, [2]Materials Physics Group, National Renewable Energy Laboratory)

P1-se.123
Dissimilarity in similarities between GaN nanorods grown on Si (111) and Si (100) substrates / PARK Kwangwook*[1], MIN Jung-Wook[2], KIM Jongmin[3], KANG Chul[4] ([1]Advanced Materials Engineering, Jeonbuk National University, [2]Photonics Laboratory, King Abdullah University of Science and Technology, [3]Device Technology Laboratory, Korea

Advanced Nano Fab Center, [4]Advanced Photonics Research Institute, Gwangju Institute of Science and Technology)

P1-se.124

Unusual optical phonon behaviors in $Ge_{1-x}Sn_x$ layers / KIM Young Chan[1], LEE Taegeon[1], RYU Mee-Yi[2], KOUVETAKIS John[3], RHO Heesuk[*1] ([1]Department of Physics, Jeonbuk National University, [2]Department of Physics, Kangwon National University, [3]School of Molecular Science, University of Arizona)

P1-se.125

Population dynamics of excitons and biexcitons in a 2D halide perovskite single crystal / NAM Seo hyun[1], YANG Jae hyun[2], YI Yeon jin[2], JANG Joon Ik[*1] ([1]Physics, Sogang University, [2]Department of physics, Yonsei University)

P1-se.126

Anomalous photoluminescence of CVD-grown $MoSe_2$ monolayer: role of residual promoters and surfactants / KIM Su Jin[1], LEE Hyun Seok[*1] ([1]Department of Physics, Chungbuk National University)

P1-se.127

Rashba and polaron effects in optical transitions of $MAPbX_3$ (X=Cl, Br, and I) under pulsed Magnetic fields / KIM Yongmin[*1], SHIN Y.[1], CHOI Halim[1], JEONG M. S.[2], PARK D. Y.[2] ([1]Physics, Dankook University, [2]Energy Science, Sungkyunkwan University)

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P1-se.201

Analysis of spin Hall effect of sputtered W_3 Ta thin film in a $W_3Ta/Co_{20}Fe_{60}B_{20}/MgO$ structure / SONG Sang youn[*1], KIM Hyeon jun[*1] ([1]electron engineering, Hanyang University)

P1-se.202

Dependence of Forming-free $GeSe_x$ based Conductive-Bridging Random-Access-Memory Characteristics on Thicknesses and Chemical Composition Ratio of $GeSe_x$ / PARK Sanghong[1,3], KIM Dongwon[2,3], KIM Heajee[2,3], JIN Soomin[2,3], WOO Daeseong[2,3], JUNG Sungmok[2,3], PARK Jeagun[*1,2,3] ([1]Department of Electronics and Computer Engineering, Hanyang University, [2]Department of Nanoscale Semiconductor Engineering, Hanyang University, [3]Ha nyang University)

P1-se.203

Dependency of Current Voltage Characteristics of IGZO TFT on 8-mercaptooctanoic acid Solution Concentration for Sensing Breast Cancer / LEE Wooguk[1], KWON Hyojun[2], SON Seunghan[3], KIM Chulgeun[3], SHIM Taehun[4], PARK Jeagun[*4] ([1]Department of Nanoscale Semiconductor Engineering, Hanyang University, [2]Deparment of Electronic and Computer Engineering, Hanyang University, [3]Department of Life Science and Research Institute for Natural Sciences, Hanyang University, [4]Hanyang University)

P1-se.204

Relaxation Frequency Variation in Blue Organic Light-Emitting Diodes / KIM Yeeun[1], NA Inyeob[2], SEO Youkyung[1], CHAE Heeyoung[2], OH Kilhwan[2], YANG Joonyoung[2], YOON Sooyoung[2], JOO Min-Kyu[*1,3] ([1]Department of Physics, Sookmyung Women's University, [2]LG Display research center, LG Display, [3]Department of Applied Physics, Sookmyung Women's University)

P1-se.205

Highly Reliable Contact Resistance and Characteristic Trap Energy Extraction Methods in Blue Organic Light-Emitting Diodes / JOO Min-Kyu[*1,2], SEO Youkyung[2], NA Inyeob[3], KIM Yeeun[2], CHAE Heeyoung[3], OH Kilhwan[3], YANG Joonyoung[3], YOON Sooyoung[3] ([1]Department of Applied Physics, Sookmyung Women's University, [2]Department of Physics, Sookmyung Women's University, [3]Display Research Center, LG Display)

P1-se.206

PbS 광전압 소자에서 광전류 과도 현상(transient)의 입사광 세기 의존성 / NOH DaeGwon[1], EMMANUEL Ampadu Kwame[1], OH Eunsoon[*1] ([1]Department of Physics, Chungnam National University)

P1-se.207

Investigation of charge transport properties in a ZnO nanowire field effect transistor / SHIN Ki Hoon[1], YOON Jongwon[2], SEO Min-Kyu[1], HONG Woong-Ki[2], SOHN Junginn[*1] ([1]Dongguk University, [2]Jeonju Center, KBSI)

P1-se.208

Vacuum deposition of organic-inorganic hybrid perovskite for the realization of red, green and blue light emitting diode / JUNG Na Eun[1], KANG Donghee[1], PARK Jeehong[1], LEE Hyunbok[*2], YI Yeonjin[*1] ([1]Department of Physics, Yonsei University, [2]Department of Physics, Kangwon National University)

P1-se.209

CdSe 양자점 / PbS 양자점 photodiode pixel array / CHANG Sehwan[1,3], KYHM Jihoon[2], PARK Hong-Gyu[3], SONG JIN DONG[*1] ([1]Center for Opto-Electronic Materials and Devices Research, KIST, [2]Quantum-Functional Semiconductor Research Center, Dongguk University, [3]Department of Physics, Korea University)

P1-se.210

Structure, optical and magnetic properties of yttrium iron garnet doped with erbium / CHO Suyeon[*1], CHO Yujin[1], LEE Sujin[1], KANG Seohui[1], BAE Dongyeon[1], KIM Dongkyu[2], KIM Zaeill[2] ([1]division of chemical engineering and materials science, Ewha Womans University, [2]Quantum Physics Technology Directorate, Agency for Defense Development)

P1-se.211

Noise analysis and optimization of vanadium pentoxide V_2O_5-based highly sensitive thermistor / LEE Wonhee[*1,2], CHAE Minho[1] ([1]Department of Physics, KAIST, [2]Department of Bio and Brain Engineering, KAIST)

P1-se.212

Resonant tunneling current in a $SrRuO_3/SrTiO_3$ superlattice / SUH Dongseok[*1], CHOI Woo Seok[*2], HONG Sung Ju[3], KIM Hyeonbeom[1], JEONG Seung Gyo[2] ([1]Department of Energy Science, Sungkyunkwan University, [2]Department of Physics, Sungkyunkwan University, [3]Division of Science Education, Kangwon National University)

P1-se.213

Environmental effects on optical properties and carrier dynamics of $CsPbBr_3$ nanocrystals with different reaction times / KIM Yong Bin[1,2], KIM Sung Hun[1], YIM Sang Youp[2], LEE Hong Seok[*1] ([1]Department of Physics, Jeonbuk National University, [2]Advanced Photonics Research Institute, GIST)

P1-se.214

MoS_2 전자 수송층을 이용한 페로브스카이트 광 다이오드/태양전지 나노 시스템 연구 / KO Jung Sun[1], LEE Won Jun[1], SHIN Dong Hee[2], KIM Sung[1], CHOI Suk-Ho[*1] ([1]Department of Applied Physics, Kyung Hee University, [2]Department of Physics, Andong National University)

P1-se.215

MoS_2를 중간층으로 사용한 그래핀/다공성 실리콘 태양전지의 효율 향상 / JANG Chan Wook[1], KO Jung Sun[1], LEE Won Jun[1], KIM Jae Kuk[1], KIM Sung[1], SHIN Dong Hee[2], CHOI Suk-Ho[*1] ([1]Department of Applied Physics, Kyung Hee University, [2]Department of Physics, Andong National University)

P1-se.216

Influence of dopant concentration on optical properties of Mn-doped ZnSe quantum dots / KIM Ju Seok[1], KIM Sung Hun[1], LEE Hong Seok[*1] ([1]Department of Physics, Jeonbuk National University)

P1-se.217

Biaxial strain engineering for exciton-polaritons in transition metal dichalcogenides / SHIN Dong-Jin[1], SUNG Jung-Hyun[1], GONG Su-Hyun[*1] ([1]Department of Physics, Korea University)

P1-se.218

Simultaneous Raman and photoluminescence studies of chemically doped two-dimensional MoS_2 layers / LEE Taegeon[1], KIM Hanul[1], KO Hayoung[2], KIM Soo Min[3], RHO Heesuk[*1] ([1]Department of Physics, Jeonbuk National University, [2]Department of Energy Science, Sungkyunkwan University, [3]Department of Chemistry, Sookmyung Women's University)

P1-se.219

Photocurrent study of bilayer-graphene systems / KIM Yeongjun[1], HUSSAIN Wajahat[1], JU Seoungmin[1], CHO Jongweon[*1] ([1]Department of Physics, Myongji University)

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Presentation: Nov. 2, 12:00 ~ Nov. 6, 18:00
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