

Flatbands

August 16-20, 2021

Virtual Conference, Daejeon, Korea

About Conference

Systems with macroscopic degeneracies are natural testbeds for novel and interesting phases of matter when subject to perturbations. The degeneracies are typically fragile and any perturbation no matter how small is relevant. Flatbands – dispersionless bands in single particle systems – are one example of such macroscopic degeneracy. When analysing the degeneracies there are two major difficulties: how does one find the degeneracies – they are typically the result of finetuning and are hard to come by – and what happens when a perturbation is added – which usually has a non-perturbative effect making standard weak coupling methods unapplicable. Therefore devising new methods to obtain/find degeneracies and developing tools to understand the effect of various perturbations is of prime importance. The aim of this conference is to bring together experts in the field to get an overview of the current state and most recent results and advances in the field.

Invited Speakers

Amnon Aharony	Israel
Hideo Aoki	Japan
Tilen Cadez	Korea
Claudio Castelnovo	UK
Carlo Danieli	Germany
Christophe Delerue	France
Yasuhiro Hatsugai	Japan
Tero Heikkilä	Finland
Chisa Hotta	Japan
Daniel Leykam	Singapore
Jun-Won Rhim	Korea
Rudolf Roemer	UK
Dario Rosa	Korea
Peter Schmelcher	Germany
Liqin Tang	China
Hal Tasaki	Japan
Paivi Torma	Finland

Topics include

- Finetuning and perturbations of flatbands
- Effects of symmetries
- Many-body interactions
- Applications

To apply for participation in the Workshop, complete the online application form by July 31, 2021. This conference will be organized via virtual conference. For further information, see pcs.ibs.re.kr or contact the PCS Visitor Program at pcs@ibs.re.kr

Organizers

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