

INSTITUT D'ETUDES SCIENTIFIQUES DE CARGÈSE

Cargèse International School 2018

Topological Phases in Condensed Matter and Ultracold Atoms Systems

October 02 - 12, 2018

Web site

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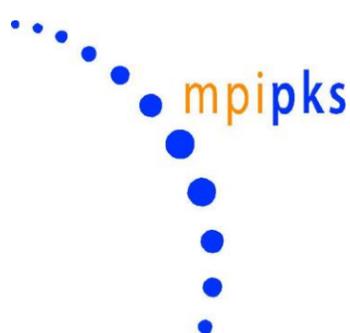
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The 2016 Nobel Prize in Physics was awarded to pioneering work opening the field of topological phases of matter. This field has matured later on in the study of the fractional quantum Hall effect, which continues to deliver exciting physics, in the form of non-abelian excitations and the observation of neutral edge modes. Inspired by the quantum Hall effect, the study of non-abelian particles has branched into different topics, such as the study of topological phases emerging in (spin) lattice models and recently topological insulators and superconductors. During recent years, the field of topological phases has been boosted by the possible application to quantum computing. Implementing topological quantum computation in realistic experimental systems is one of the holy grails of the community.

Main topics will include

- Topological phases & Quantum Simulations
- Strongly Correlated Electrons & Cold Atoms
- Machine Learning & Quantum Computation
- Non-equilibrium Physics

Eminent scientists will animate the workshop. These include (tentative):

Maissam Barkeshli (Maryland Univ.), Federico Becca (SISSA), Emil Bergholtz (Univ. Stockholm), Philippe Corboz (Amsterdam Univ.), Benoit Douçot (LPTHE Paris), Matthew Fisher (UCSB), Tarun Grover (KITP UCSB), Markus Heyl (MPI-PKS Dresden), Johannes Knolle (Cambridge), Dima Kovrizhin (Oxford), Andreas Laeuchli (Univ. Innsbruck), David Luitz (MPI-PKS Dresden), Roger Melko (Univ. Waterloo), Frédéric Mila (EPFL, Lausanne), Adam Nahum (Oxford), Titus Neupert (Univ. of Zurich), Masaki Oshikawa (ISSP, Tokyo), Zlatko Papić (Dresden), Sid Parameswaran (Oxford), K. Penc (Univ. of Budapest), Norbert Schuch (MPI-Garching), Adiel Stern (Weizmann).

Organization Committee and Scientific Committee

Roderich Moessner (Max Plank Inst. Dresden DE), Didier Poilblanc (IRSAMC Toulouse, FR), Nicolas Regnault (LPA ENS Paris, FR)

Application and registration

<https://www.azur-colloque.fr/DR14/inscription/preinscription/108>

Contact and organization : Malika Bentour, topo2018@irsamc.ups-tlse.fr

Deadline Application : 31/08/2018

Registration Fees (includes lodging, lunches, breakfasts and coffee breaks) : 750 euros
(free for invited speakers and CNRS PhD/post-docs)

Updated informations on CECAM website ("File" section)

<https://www.cecama.org/workshop-1596.html> & <https://www.cecama.org/workshop-5-1596.html>