

CIMPA BOGOTÁ 2019

Research School on

QUANTUM SYMMETRIES

June 24 - July 5, 2019.

Universidad de los Andes - Bogotá D.C., Colombia.

matematicas.uniandes.edu.co/quantum_school

About this meeting

The notion of a group describes symmetry in mathematics. In recent decades, certain quantum mathematical objects have appeared whose symmetries are better described by group-like objects called tensor categories. Examples of areas of mathematics where tensor categories play a key role include subfactors, quantum groups, Hopf algebras, quantum topology and topological quantum computation. The aim of the school is to introduce graduate students to tensor category theory and their applications to Topological Quantum Field theory, Subfactor theory, and Hopf algebras. We will bring together a wide variety of senior experts, postdocs, and graduate students from mathematics and physics. This mix of people will provide young researchers an opportunity to interact with experts, develop connections, and increase their exposure.

Courses

- *Tensor Categories*
Victor Ostrik
University of Oregon
- *Hopf Algebras and Their Generalizations from a Categorical Point of View*
Gabriella Böhm
Wigner Research Centre for Physics of the Hungarian Academy of Sciences
- *On finite-dimensional Hopf Algebras and their Representations*
Siu-Hung Ng
Louisiana State University
- *The Mathematics of Topological Quantum Computing*
Eric Rowell
Texas A&M University
- *Topological Quantum Field Theory*
Noah Snyder
Indiana University, Bloomington
- *Subfactors, Fusion Categories, and Planar Algebras*
Scott Morrison
Australian National University

Scientific committee

- **Alain Bruguières**
Université de Montpellier
- **Pavel Etingof**
Massachusetts Institute of Technology
- **Eric Rowell**
Texas A&M University
- **Andrea Solotar**
Universidad de Buenos Aires
- **Chelsea Walton**
The University of Illinois at Urbana-Champaign
- **Zhenghan Wang**
University of California at Santa Barbara

Organizing committee

- **Carolina Benedetti**
Universidad de los Andes
- **Alain Bruguières**
Université de Montpellier
- **César Galindo**
Universidad de los Andes
- **Monique Müller**
University of Minas Gerais
- **Julia Plavnik**
Indiana University, Bloomington



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