



THE UNIVERSITY OF CHICAGO

COMPUTATIONAL AND APPLIED MATHEMATICS COLLOQUIUM

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Columbia University

Mathematical Mysteries Behind Topological Insulators

THURSDAY, February 13, 2020, at 4:00 PM
Jones 226, 5747 South Ellis Avenue

ABSTRACT

Topological insulators are intriguing materials that block conduction in their interior (the bulk) but support robust asymmetric currents along their edges. This remarkable property -- along with its applications to quantum computing -- is the subject of intense research in condensed matter physics. This talk will be a mathematical overview of topological insulators. After reviewing the basics, I will discuss the bulk-edge correspondence; and the concentration of currents along "local topology" jumps.

Organizer:

Daniel Sanz-Alonso, Department of Statistics, sanzalonso@uchicago.edu
CAM Colloquium URL: <https://cam.uchicago.edu/events/cam-colloquium/>.

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