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OKINAWA INSTITUTE OF SCIENCE AND TECHNOLOGY GRADUATE UNIVERSITY
沖縄科学技術大学院大学

THEORETICAL SCIENCES VISITING PROGRAM

TSVP TALK

FROM COFFEE CUPS TO CONDUCTIVITY:

TOPOLOGICAL PHASES OF MATTER AND BEYOND

2022

THU.

JUN. 16TH

16:00 - 17:00

HYBRID L4E48, ZOOM



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Electrons in materials can behave in an astonishing variety of ways – metals, insulators, magnets, and superconductors are just a few examples. Recently, a new set of these behaviors, which are intrinsically quantum mechanical, have been found; they go by the name “topological phases of matter.” These new phases exhibit amazing phenomena ranging from precisely quantized conductivities to (quasi-)particles that cannot move in certain directions, even in otherwise empty space. The mathematics of topology plays a key role in understanding these behaviors. This talk will give an overview of topological phases and highlight the ways they challenge our understanding in many areas of physics.

UNIVERSITY OF MARYLAND

DANIEL BULMASH

Dr. Danny Bulmash is a postdoctoral researcher in theoretical condensed matter physics at the University of Maryland, College Park. He received his Ph.D. in 2017 from Stanford University. His research interests are in proposing, classifying, and probing novel phases of matter, with particular expertise in topological phases.

CONTACT

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