

Symmetry protected topological phases and generalized (co)homology theory

Tuesday, 15 December 2020 10:50 (1h 30m)

It is discussed that the symmetry protected topological phase (SPT phase) is well described by generalized cohomology theory. Identifying the classification of SPT phases on a real-space manifold X as a homology group on X offers a unified understanding of SPT phenomena through the axioms and general properties of the generalized (co)homology. In this talk, I will give a brief review of how the mathematical structure of generalized (co)homology theory can help us to consider SPT phases and quantum anomalies.

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Session Classification: Invited talks