

Topology Seminar

Dan Berwick-Evans

of The University of Illinois Urbana-Champaign will be speaking on

Supersymmetric field theories and elliptic cohomology

on October 2 at 4:30 in
MIT Room 2-131

Since the mid 1980s, there have been hints of a deep connection between 2-dimensional field theories and elliptic cohomology. This led to Stolz and Teichner's conjectured geometric model for the universal elliptic cohomology theory of topological modular forms (TMF) in which cocycles are 2-dimensional supersymmetric field theories. Basic properties of these field theories lead to expected integrality and modularity properties, but the abundant torsion in TMF has always been mysterious. In this talk, I will describe deformation invariants of 2-dimensional field theories that realize some of the torsion in TMF.

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