

Departmental Colloquium

Dr. Mark Penney
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Friday, October 6, 2017
1:00p.m., HH-3017

Topological quantum field theory: A link between topology and algebra

Abstract:

Topological quantum field theories (TQFTs) originated in physics as a language to model quantum systems having no local degrees of freedom. In the hands of mathematicians, TQFTs form a bridge connecting manifold topology to topics in algebra. In this talk I will describe a classical story of how 2D gauge theory links together the topology of surfaces and the representation theory of finite groups.