SwissMAP
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Skein modules for generic quantum parameters"

Tuesday 28 June 2022 15:00 (1 hour)

Skein modules were defined by Przytycki and Turaev as a way to generalize the Jones polynomial and the Kauffman bracket to links in manifolds other than the 3-sphere. In this talk I will review some recent structural results, such as the fact that the skein module of a closed 3-manifold is finite-dimensional for generic quantum parameters. I will also describe a work in progress joint with Gunningham which relates skein modules for generic quantum parameters to the cohomology of a certain perverse sheaf on the character stack of the 3-manifold. This allows one to generalize skein modules to finite 3-dimensional Poincare complexes and compute them for those with a finite fundamental group.

Presenter: SAFRONOV, Pavel