SCGP Weekly Talk: Mikhail Khovanov

Tuesday, November 7·1:15 – 2:15pm

Title: Introduction to link homology and categorification.

Abstract: This talk will be an introduction to link homology theories and their connections to categorified representation theory. A link homology theory is a tensor functor from the category of link cobordisms in 4-space to the category of vector spaces or a similar category. We will discuss examples and applications of these homology theories and explain their relation to interesting triangulated categories, commonly seen in both geometry and representation theory. Studying commuting functors acting on these categories leads to categorified quantum groups and to interactions between the category of Soergel bimodules and link homology theories.