Transverse knots and knot homologies

Lenhard Ng

Duke University

Thursday, May 1, 2008

007 Kemeny Hall, 4:00 pm

(Tea 3:30 pm 300 Kemeny Hall)

Abstract

Transverse knots play an important role in knot theory, braid theory, and symplectic geometry, but their classification is surprisingly poorly understood. I'll introduce transverse knots combinatorially via braids and grid diagrams, and I'll survey recent progress in classifying them, thanks to input from an unexpected direction: new topological invariants such as Khovanov homology and knot Floer homology. No real background will be assumed.

This talk should be accessible to graduate students.