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For Favour of Posting

Department of Mathematics
The Chinese University of Hong Kong

數學系
香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk (Math. Dept.)
Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Seminar

Combinatorial invariants of transverse links via cyclic branched covers

Dr. Mike Wong

Louisiana State University

Abstract

Grid homology is a version of link Floer homology in the 3-sphere that is entirely combinatorial and simple to define. Exploiting this, Ozsvath, Szabo, and Thurston defined a combinatorial invariant of transverse links in the 3-sphere using grid homology, which was then used to show that certain knot types are transversely non-simple by Ng, Ozsvath, and Thurston. This is particularly interesting because there are few invariants well suited for such purpose. More generally, there is also an invariant for transverse links in an arbitrary 3-manifold defined by Lisca, Ozsvath, Stipsicz, and Szabo, using an open-book decomposition. However, this invariant is difficult to compute in general. In this talk, for a transverse link in the 3-sphere, we will define combinatorial invariants by considering its lifts in its cyclic branched covers, using Levine's grid-like diagrams for knot Floer homology, and show that they coincide with the LOSS invariants for the lifts. This is joint work with Shea Vela-Vick.

Date: 30 July 2018 (Monday)
Time: **1:00pm – 2:30pm**
Venue: Room 222, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin

All are Welcome