

Emergent Research:

The PIMS Postdoctoral Fellow Seminar



Pacific Institute *for the*
Mathematical Sciences

Feb 9, 2022 | 9:30am Pacific

Knot Floer Homology of

Satellite Knots

ABSTRACT:

Knot Floer homology is a package of widely-used knot invariants constructed via pseudo-holomorphic curves. In this talk, we will restrict our attention to the knot Floer homology of a class of knots called satellite knots; understanding these invariants figure prominently in studying 4-dimensional questions in knot theory, such as analyzing surfaces bounded by knots in 4-manifolds. However, previous methods of computing these invariants are rather involved. In this talk, I will present a new and more effective way to compute the knot Floer homology of satellite knots; our approach is built on the immersed-curve technique introduced by Hanselman-Rasmussen-Watson in bordered Heegaard Floer homology. This talk is based on joint work in progress with Jonathan Hanselman.

For more information and registration:

<https://www.pims.math.ca/seminars/PIMSPDF>



Wenzhao Chen

PIMS PDF, UBC

SPEAKER BIO:

Wenzhao Chen obtained his Ph.D. at Michigan State University in 2019, where he studied Heegaard Floer homology and low dimensional topology under the supervision of Dr. Matt Hedden. He was a postdoc in the Max Planck Institute for Mathematics in Bonn from 2019 to 2021. Currently, he is a PIMS Postdoctoral Fellow at the University of British Columbia. He is working with Dr. Liam Watson in low-dimensional topology.

ABOUT PIMS PDF SEMINARS:

PIMS ongoing lecture series featuring our Postdoctoral Fellows every three weeks. You will have the opportunity to connect with emerging research in the mathematical sciences from a PIMS Postdoctoral Fellow. PIMS PDFs are amongst the top young researchers in Canada, and this is an excellent opportunity to learn about them, and their work.

