

Colloquium

University of Notre Dame
Department of Mathematics

Hannah Alpert - University of British Columbia

Speaker: Hannah Alpert

University of British Columbia

Will give a lecture entitled
Homology crowding in configuration spaces of disks

Date: Thursday, December 17, 2020

Time: 3:00 PM

Location: Zoom

Zoom URL: [notredame.zoom.us/j/99777128549?
pwd=MVJDSGdJdmsvVm16akZjQ0gxTXZpUT09](https://notredame.zoom.us/j/99777128549?pwd=MVJDSGdJdmsvVm16akZjQ0gxTXZpUT09)



Abstract:

Configuration spaces of disks in a region of the plane vary according to the radius of the disks, and their topological invariants such as homology also vary. Realizing a given homology class means coordinating the motion of several disks, and if there is not enough space for the disks to move, the homology class vanishes. We explore how clusters of orbiting disks can get too crowded, some topological conjectures that describe this behavior, and some progress toward those conjectures.