Daniel Groves, University of Illinois at Chicago

**Cube Complexes in Group Theory and Topology**

Cube complexes are spaces built by gluing cubes of various dimensions along faces. In recent years, the theory of cube complexes has seen some spectacular applications to problems in topology and group theory, especially Agol's resolution of the virtual Haken and virtual fibering conjectures. In this talk, I will introduce the main objects in the area, and explain how they fit together, ending with a result which generalizes Agol's main result about negatively curved cube complexes. This is joint work with Jason Manning.