



## Colloquium

February 5, 3:00 p.m. (8<sup>th</sup> Period)  
(in the Atrium)

**Speaker:** Justin Young

**Title:** How to use Topology to Study Set Theory

### Abstract

Permutation models are a type of model of set theory that arise from studying group actions on a set. In this talk, we will focus on examples of permutation models when the group is the group of self-homeomorphisms of some topological space, acting by application, and see how trying to answer questions about permutation models raises questions about topology. In this way, we illustrate that the study of permutation models is linked to the study of geometric topology, as well as other fields of mathematics.