

*Fall 2025*

# Geometry and Topology Seminar

Title

*Infinitely presented simple groups separated by homological finiteness properties*

Speaker: Xiaolei Wu, Shanghai Center for Mathematical Sciences of Fudan University  
Date: November 14, 2025  
Time: 10:30AM (China Standard Time)  
Tencent Meeting (VooV): 382 868 2051, Password: 202511

**Abstract:** I will first give an overview on the geometry and topology of infinite simple groups. Then I will talk about how Röwer–Nekrashevych groups can be used to produce simple groups with interesting finiteness properties. In particular, I will explain how one could produce infinitely presented groups that are type  $FP_n$  but not  $FP_{n+1}$  for any  $n$ , or even type  $FP_\infty$ . This is a joint work with Claudio Llosa Isenrich, Eduard Schesler.