

## **HOMOMORPHISMS TO 3-MANIFOLD GROUPS**

### **Fudan Topology Seminar**

**Speaker: Hao Liang**  
**Sun Yat-sen University**

**Time: Thur, May. 19th, 15:00-17:00**

**Tencent Meeting ID: 861-8661-7196**

**Passcode: 123555**

**Abstract:** Following Sela's theory of limit groups (of free group), we define and study limit groups of compact 3-manifold groups. We show that the family of compact 3-manifold groups are equationally noetherian, which answers a question of Agol and Liu. The main application of our result is to give a positive answer to a question of Reid, Wang and Zhou about epimorphism sequence of closed orientable aspherical 3-manifold groups. This is joint work with Daniel Groves and Michael Hull.