

## ***ACTIONS OF HOMEOMORPHISM AND DIFFEOMORPHISM GROUPS ON MANIFOLDS***

**Fudan Topology Seminar**

**Speaker: Lei Chen**

**University of Maryland**

**Time: Mon, Jan. 8th, 16:00 - 17:00**

**Venue: Room 102, SCMS**

**Abstract:** In this talk, I discuss the general question of how to obstruct and construct group actions on manifolds. I will focus on large groups like  $\text{Homeo}(M)$  and  $\text{Diff}(M)$  about how they can act on another manifold  $N$ . The main result is an orbit classification theorem, which fully classifies possible orbits. I will also talk about some low dimensional applications and open questions. This is a joint work with Kathryn Mann.