

Department of Mathematics

University of Houston

# Analysis Seminar

FRIDAY, November 16, 2018

13:00-14:00 – Room 646 PGH

**Speaker:** Jinmin Wang (Fudan University, China)

**Title:** Higher eta invariant and higher rho invariant

**Abstract:** The classical eta invariant is introduced by Atiyah, Patodi and Singer to study the index theory of manifold with boundary. And the higher version is introduced by Lott, which takes the fundamental group of the manifold into consideration. I will talk about our recent work showing that Lott's definition makes sense in a very general situation. Moreover, I will show the connections between higher eta invariant and Higson-Roe's higher rho invariant assuming that the fundamental group is hyperbolic. This indicates a bridge between two different approaches to the higher index theory of manifold with boundary. This is joint work with Xiaoman Chen, Zhizhang Xie and Guoliang Yu.