

**Institute for Mathematics and its Applications**  
**2011 Seminar Series: 4**  
University of Wollongong

**Title:** Asymptotic Behaviour in Topological Dynamics

**Speaker:** Guo Hua Zhang (University of New South Wales and Fudan University)

**Time and Date:** 1:30pm, Friday May 13, 2011

**Location:** Room 24.204

**Abstract:** By a topological dynamical system (TDS) we mean a group of homeomorphisms over a compact metric space. Given a TDS, people are interested in the study of its complexity. In this talk, we focus on the study of asymptotic behaviour of pairs from the state space and its relationship with other dynamical properties (such as expansiveness, topological entropy and so on). Most of results are talked about for a TDS of a  $\mathbb{Z}$ -action. We also discuss briefly a TDS of a general group action.