Abstract:
A triangulation of a topological space is a homeomorphism from this space to a simplicial complex. A famous problem in topology is whether all manifolds are triangulable. Surprisingly, the answer is no when dimension is at least 4. In this talk, I will explain the beautiful work of Galewski-Stern and Matumoto, which provides an obstruction theory for triangulating manifolds. I will also explain Manolescu’s disproof of triangulation conjecture in all dimensions greater than 4.