Title: Sobolev Embeddings and application to problems in conformal geometry.

Talk by Alice Chang

**Abstract**:

In this talk, I will discuss a special case of the Sobolev embedding theorem, and describe a blow up sequence of functions which are extremals of the embedding. This sequence of functions plays an important role in PDE problems in conformal geometry (e.g the Yamabe problem); in particular, it tells us how to distinguish the standard spheres from any other compact manifolds. I will also discuss some higher order generalizations of such embeddings.