Department of Mathematics

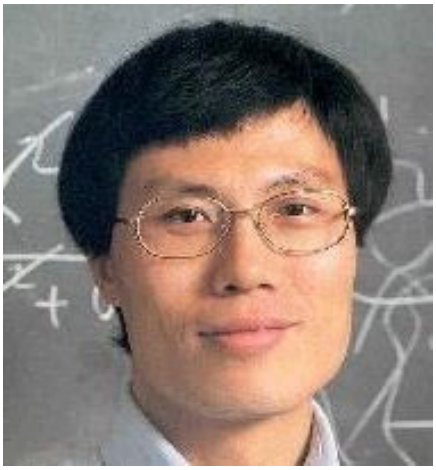
University of Notre Dame

Xiaobo Liu - Peking University

PDE, COMPLEX ANALYSIS AND DIFFERENTIAL GEOMETRY SEMINAR

Guest Speaker: Xiaobo Liu

Peking University



Date: Tuesday, January 28, 2020

Time: 11:00 AM

Location: 258 Hurley Hall

Lecture Title:

Ancient solutions to mean curvature flow of isoparametric submanifolds

Abstract

Ancient solutions are important in studying singularities of mean curvature flows (MCF). So far most rigidity results about ancient solutions are modeled on shrinking spheres or spherical caps. In this talk, I will describe the behavior of MCF for a class of submanifolds, called isoparametric submanifolds, which have more complicated topological type. We can show that all such solutions are in fact ancient solutions, i.e. they exist for all time which goes to negative infinity. This motivated us to propose conjectures about rigidity of ancient MCF for hypersurfaces in spheres. This talk is based on a joint work with Chuu-Lian Terng.