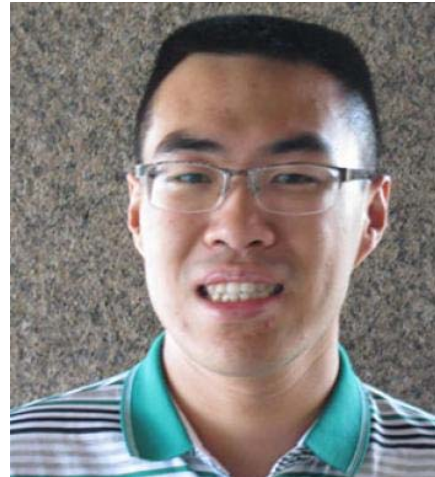


PDE, COMPLEX ANALYSIS AND DIFFERENTIAL GEOMETRY SEMINAR

Guest Speaker: Siyi Zhang
Princeton University



Date: Tuesday, October 30, 2018

Time: 11:00 AM

Location: 258 Hurley Hall

Lecture Title:

Some conformally invariant gap theorems for Bach-flat 4-manifolds

Abstract

A. Chang, J. Qing, and P. Yang proved a conformal gap theorem for Bach-flat metrics with round sphere as model case more than ten years ago. In this talk, we extend this result to prove conformally invariant gap theorems for Bach-flat 4-manifolds with Fubini-Study metric on complex projective space and product metric on the product of spheres as model cases. An iteration argument plays an important role in the case of complex projective space and the convergence theory of Bach-flat metrics is the main analytic tool in the case of the product of spheres.