Department of Mathematics
University of Notre Dame

FELIX KLEIN SEMINAR

Speaker: Francesco Panelli
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Date: Thursday, February 14, 2019
Time: 2:00 PM
Location: 258 Hurley Hall

Lecture Title:

Hermitian Curvature Flow on compact homogeneous spaces

Abstract
Hermitian Curvature Flows are a family of parabolic flows on a Hermitian manifold which was introduced by Jeffrey Streets and Gang Tian in order to generalize the classical Ricci flow in the non-Kähler setting. Recently Yury Ustinovskiy focused on a particular flow in this family, which we call HCF_o, showing that on a compact Hermitian manifold it preseves Griffiths non-negativity of the Chern curvature, thus generalizing the classical result that Kähler-Ricci flow preserves the positivity of the bisectional holomorphic curvature. In this talk we will study the HCF_o on compact homogeneous complex manifolds. In particular, we will see that it has a finite extinction time $T>0$ and we will analyze its behaviour when t approaches T. We will also determine its static metrics, and we will study the convergence of the normalized flow to one of them. This is a joint work with Fabio Podestà.

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