BAY AREA DIFFERENTIAL GEOMETRY SEMINAR

SATURDAY, NOVEMBER 19, 2011

MSRI
BERKELEY CALIFORNIA

David Bao (San Francisco State University), Robert Bryant (Mathematical Sciences Research Institute), Joel Hass (University of California, Davis), David Hoffman (Stanford University), Rafe Mazzeo (Stanford University), Richard Montgomery (University of California, Santa Cruz)

The Bay Area Differential Geometry Seminar meets three times each year and is a one-day seminar on recent developments in differential geometry and global analysis, broadly interpreted. The November meeting at MSRI will conclude with a dinner at the home of David Hoffman. Please use the signup form (click on the words "signup form") to register for the seminar and to indicate whether or not you will attend the dinner. Spouses and significant others are invited to the dinner. Questions? Problems with this form? Email *hoffman@math.stanford.edu*.

10:00 AM ***Reception. Coffee and rolls***

11:00 AM **Andre´ Neves, Imperial College, London**

UNIQUENESS OF LAGRANGIAN SELF EXPANDERS

12:00 PM: ***Lunch (at MSRI)***

1:30 PM: ***Business meeting***

2:00 PM: **Assaf Naor, Courant Institute, NYU**

BI-LIPSCHITZ UNIFORM CONVEXITY

3:00 PM ***Afternoon Coffee and Cake***

3:45 PM **Tobias Colding, MIT**

MANIFOLDS WITH RICCI CURVATURE BOUNDS

5:45 PM ***Dinner***

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MSRI, BERKELEY, NOVEMBER 19TH 2011

André Neves, Imperial College, London

Uniqueness of Lagrangian Self-expanders

Abstract. Self-expanders are solutions to mean curvature flow which evolve by homotheties. Heuristically, they are the simplest solutions which start at a singular configuration and become instantaneously smooth. I will show that Lagrangian self-expanders which are asymptotic to two planes in C^2 are unique. This is a joint work with Jason Lotay.

Assaf Naor, Courant Institute

Bi-Lipschitz Uniform Convexity

Abstract. There are standard definitions of uniform convexity of a metric space that are widely used in metric geometry. These notions are isometric invariants. In this talk we will discuss a definition which is preserved under bi-Lipschitz mappings, i.e., we will present an intrinsically defined notion of when a metric space is bi-Lipschitz equivalent to a uniformly convex metric space. We will show that this definition, when restricted to Banach spaces, is equivalent to the classical notion of isomorphic uniform convexity of a norm, and we will present several applications of this notions to metric geometry.

Tobias Colding, MIT

Manifolds with Ricci Curvature Bounds

Abstract. I will describe some new estimates for manifolds with Ricci curvature bounds and some of their applications.