PATCH

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at Bryn Mawr College

Friday, March 25th, 2016
328 Park Science Building

John Etnyre – Georgia Tech and IAS
Genevieve Walsh – Tufts University

Morning Gatherings

10:00 **"Intro to hyperbolic groups and their boundaries" with Genevieve**
11:30 **"Transverse knots and the birth of 3D contact topology" with John**

Lunch at Wyndham   12:30 – 2

Afternoon Talks

2:00 Genevieve Walsh   "Boundary rigidity"

What does the boundary of a hyperbolic group specify about the group? For example, if two groups have the same boundary, are they quasi-isometric? Commensurable? Both quasi-isometric to groups of a particular type? We will also discuss algebraic information that can be deduced from only the topology of the group.

4:00 John Etnyre   "Embeddings of contact manifolds"

I will discuss recent results concerning embeddings and isotopies of one contact manifold into another. Such embeddings should be thought of as generalizations of transverse knots in 3-dimensional contact manifolds (where they have been instrumental in the development of our understanding of contact geometry). I will mainly focus on embeddings of contact 3-manifolds into contact 5-manifolds. In this talk I will discuss joint work with Ryo Furukawa aimed at using braiding techniques to study contact embeddings. Braided embeddings give an explicit way to represent some (maybe all) smooth embeddings and should be useful in computing various invariants. If time permits I will also discuss other methods for embedding and constructions one may perform on contact submanifolds.

Dinner   5:30 – 7