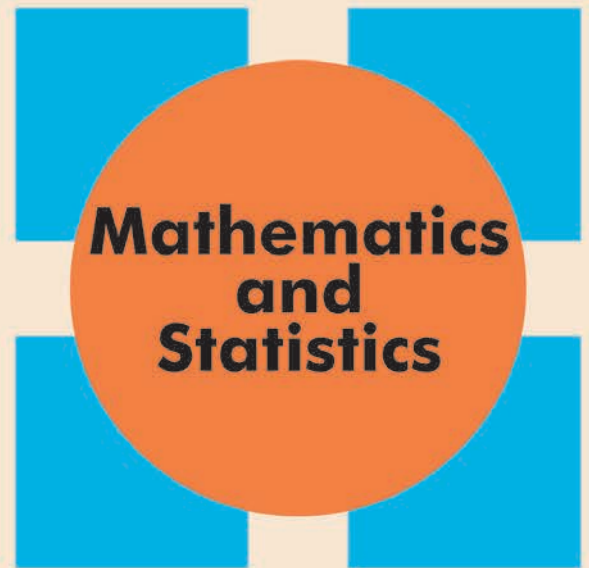


COLLOQUIUM

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The topology of collective completely integrable systems



Date: Friday, February 17, 2017

Time: 3:30 - 4:30 PM

Room: RI 209

Abstract: A completely integrable system on a symplectic manifold defines a singular foliation by Lagrangian submanifolds. Although this foliation can be quite pathological in general, under various mild topological assumptions much of the geometry of the symplectic manifold can be read from the base of this foliation (the image of the momentum map).

In this talk I will introduce completely integrable systems, Hamiltonian group actions and (time permitting) explain how they can be used to prove lower bounds for a symplectic invariant called 'Gromov width' of a large family of symplectic manifolds by studying the combinatorics of their classifying data (a polytope and a lattice). This builds on earlier work by [Pabiniak, 2012].