Geometry, Groups and Dynamics/GEAR Seminar (held at the Illinois hub of GEAR)

12:00 pm, Thursday, September 8, 2016, 243 Altgeld Hall

Nathan Dunfield (Illinois)

Floer homology, group orders, and taut foliations of hyperbolic 3-manifolds

Abstract: A bold conjecture of Boyer-Gorden-Watson and others posit that for any irreducible rational homology 3-sphere M the following three conditions are equivalent: (1) the fundamental group of M is left-orderable, (2) M has non-minimal Heegaard Floer homology, and (3) M admits a co-orientable taut foliation. Very recently, this conjecture was established for all graph manifolds by the combined work of Boyer-Clay and Hanselman-Rasmussen-Rasmussen-Watson. I will discuss a computational survey of these properties involving several hundred thousand hyperbolic 3-manifolds.

<u>Video</u>