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

Tuesday, October 7, 2014, 1:00 pm, 243 Altgeld Hall

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Effective separability for hyperbolic surface and 3-manifold groups

Abstract: The fundamental groups of hyperbolic surfaces and 3-manifolds, referred to as surface groups and 3-manifold groups, respectively, have various algebraic finiteness properties. Two of these properties, residual finiteness and subgroup separability, have played an important role in the recent resolution of some outstanding conjectures in 3-manifold theory. To begin this talk, we will define residual finiteness and subgroup separability. We will then explain how effective proofs of these properties can help us "quantify" separability and discuss the topological implications of such quantifications. We focus on the surface case and discuss related work on lifting geodesics in hyperbolic surfaces to embedded ones in finite covers.

Video