

## Algebra/Topology Seminar

## Steven Plotnick

## THE VIRTUAL HAKEN CONJECTURE A TRIP THROUGH THREE-MANIFOLD TOPOLOGY

Thursday, May 3, 2012 1:15 p.m. in ES-143

ABSTRACT. Ian Agol has recently circulated a manuscript proving the Virtual Haken Conjecture and the Virtual Fibering Conjecture, two questions in three-manifold topology that had been open since the 60's and 70's. Although the statements of these conjectures are purely topological, the methods of proof are in the realm of geometric group theory. In this talk, I will lay out the basics of three-manifold topology so that we can see how these conjectures fit into the development of three-manifolds. No background in three-manifolds is assumed, although some algebraic topology would be nice.