
NICHOLAS MILLER, UC Berkeley

Geodesic submanifolds of hyperbolic manifolds

It is a consequence of the Margulis dichotomy that when an arithmetic hyperbolic manifold contains one totally geodesic hypersurface, it contains infinitely many. Both Reid and McMullen have asked conversely whether the existence of infinitely many geodesic hypersurfaces implies arithmeticity of the corresponding real hyperbolic manifold. In this talk, I will discuss recent results answering this question in the affirmative. This is joint work with Bader, Fisher, and Stover.