1067-11-11 **Akshay Venkatesh***, Department of Mathematics, Stanford University, Stanford, CA. *Modular forms and the topology of certain hyperbolic 3-manifolds.*

I'll discuss questions, suggested by modular forms, about the topology of certain ("arithmetic") hyperbolic 3-manifolds. The questions will mainly relate to the first homology group, and in particular its torsion part; I will give lots of examples. Results presented are from joint works with Nicolas Bergeron and Frank Calegari. (Received September 23, 2010)