Meeting: 998, Houston, Texas, SS 7A, Special Session on Low Dimensional Topology

998-57-380 Lorena Armas-Sanabria* (larmas@math.unam.mx), Instituto de Matematicas, UNAM, Circuito Exterior, Ciudad Universitaria, 04510 Mexico D.F., Mexico. An example of a hyperbolic 3-manifold realizing a bound on Dehn fillings. Preliminary report.
Let $M$ be an irreducible 3-manifold with an incompressible torus boundary $T$ and $\gamma$ a longitudinal slope on $T$, which bounds an incompressible surface with genus 2. Suppose there exists a slope $r$ that produces an essential 2 -sphere by Dehn filling. Let $q$ be the minimal geometric intersection number between the essential 2 -sphere and the core of the Dehn filling. Matignon-Sayari proved that $q=2$ or the minimal geometric intersection number between $\gamma$ and $r$ is bounded by 3. In this talk we show an example that realizes that bound. (Received March 02, 2004)

