Meeting: 1001, Evanston, Illinois, SS 21A, Special Session on Low-Dimensional Topology and Kleinian Groups

1001-57-329 **Ben Klaff*** (klaff@math.utexas.edu), Ben Klaff, Department of Mathematics, 1 University Station C1200, Austin, TX 78712-0257. *Representation-volume rigidity for hyperbolic manifolds.*

Let r be a representation of the fundamental group of a finite-volume hyperbolic k-manifold M into the group of isometries of n-dimensional hyperbolic space H^n, $n \geq k \geq 3$. Then the representation-volume of r is less than or equal to the volume of M; moreover, equality holds if and only if r is discrete and faithful and its image is contained in the group of isometries of a k-dimensional hyperbolic subspace. Our proof uses the "natural map" technique developed by Besson, Courtois, and Gallot. (Joint with Stefano Francaviglia, Universita di Pisa.)

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