

Hyperbolic groups that are indiscrete in rank one

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We discuss examples of Gromov-hyperbolic groups whose intrinsic negative curvature is witnessed by actions on higher-rank symmetric spaces, but not by actions on negatively curved symmetric spaces. More precisely, these groups admit Anosov (in particular, discrete) embeddings into higher-rank Lie groups, but no convex cocompact (indeed, no discrete) embeddings into rank-one Lie groups. Our examples contain free products of superrigid rank-one lattices where, crucially, at least one factor is octonionic.

(joint work with Konstantinos Tsouvalas)