LIMIT SETS OF DEGENERATE COAFFINE SURFACE GROUPS

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Abstract

We are interested in surface subgroups of the 3-dimensional affine subgroup of GL(4,$\mathbb{R}$) via their actions on the projectivization of $(\mathbb{R}^4)^*$ (or dually, the action of the coaffine group on $\mathbb{RP}^3$). Many such surface subgroups are (projective)-Anosov and preserve a properly convex subset of projective space, on which they act with compact quotient a 3-manifold with surface boundary. In this talk, we explain how to identify the boundary of the locus of Anosov representations in terms of the shape of the unit ball for the "stable norm" on homology with respect to a the relevant asymmetric metric on the surface. We use this description and certain dual best Lipschitz maps to describe the structure of the limit sets for these degenerate surface groups. There is, in particular, an oriented geodesic lamination of maximal stretch whose endpoints are all crushed to the same point in the limit set. This is joint work with M. Bobb.