

“Ricci-Yang-Mills flows and the boundary of Anosov metrics”

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We show, with the help of the Ricci-Yang-Mills flow, that there exist compact surfaces without focal points and regions of positive curvature which are in the boundary of surfaces whose geodesic flows are Anosov. The Ricci flow theory already implies that compact surfaces of non-positive curvature are in the boundary of metrics of negative curvature, but the short term behavior of the geodesic flow of metrics without conjugate points and regions of positive curvature is very hard to control just using the Ricci flow theory. This is a joint work with Dan Jane.