A NEW CHARACTERIZATION OF GROMOV HYPERBOLICITY FOR NEGATIVELY CURVED SURFACES

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Abstract

In this paper we show that to check Gromov hyperbolicity of any surface of constant negative curvature, or, Riemann surface, we only need to verify the Rips condition on a very small class of triangles, namely, those obtained by marking three points in a simple closed geodesic. This result is, in fact, a new characterization of Gromov hyperbolicity for Riemann surfaces.