

**A CHARACTERIZATION OF GROMOV
HYPERBOLICITY OF SURFACES WITH VARIABLE
NEGATIVE CURVATURE**

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Abstract

In this paper we show that, in order to check Gromov hyperbolicity of any surface with curvature $K \leq -k^2 < 0$, we just need to verify the Rips condition on a very small class of triangles, namely, those contained in simple closed geodesics. This result is, in fact, a new characterization of Gromov hyperbolicity for this kind of surfaces.

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Key words. Gromov hyperbolicity, Riemannian surface, negatively curved Riemannian surface.

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