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Gromov Hyperbolicity in Mycielskian Graphs

Since the characterization of Gromov hyperbolic graphs seems a too ambitious task, there are many papers studying the hyperbolicity of several classes of graphs. In this paper we show the Gromov hyperbolicity of every Mycielskian graph. Furthermore, we prove that the hyperbolicity constant of the Mycielskian G^M of any graph G verifies $5/4 \leq \delta(G^M) \leq 5/2$. Graphs whose Mycielskian have hyperbolicity constant $5/4$ or $5/2$ are characterized.