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Graphs and Gromov Hyperbolicity*. Preliminary report.

The Gordian graph is a construction for organizing the set of knots, in which each vertex represents the isotopy type of a knot, and two vertices are connected by an edge whenever the corresponding knots are related by a crossing change. This a countably infinite graph and every vertex has infinite valence. Other variants of this graph (for example, the $H(2)$ -Gordian graph) can be defined in a similar manner, and capture information about other local moves on knots. The broad structure of such knot graphs is not well-understood. We'll discuss some results in this area, and in particular, prove that many knot graphs are not Gromov hyperbolic. (Received September 17, 2019)