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Tom Bohman* (tbohman@math.cmu.edu), Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, PA 15213, and **Lutz Warnke**. *Large girth approximate Steiner triple systems.*

One can define the girth of a graph to be the minimum k such that there is a set of k vertices that spans at least k edges. This definition can be extended to the setting of Steiner triple systems by defining the girth to be the smallest $k \geq 4$ for which there is a set of k vertices that spans at least $k - 2$ triples. In the 1970s Erdős conjectured the existence of Steiner triple systems with arbitrarily large girth. In this talk we discuss a randomized algorithm that produces an approximate triple Steiner system of arbitrarily large girth. (Received August 21, 2018)