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Xiaofeng Gu*, 1601 Maple St., Carrollton, GA 30118. *Sufficient conditions for graph rigidity.*

A bar-and-joint framework in Euclidean plane is a pair (G, p) , where G is a graph and p is a map from $V(G)$ to the Euclidean plane. Given a framework (G, p) , a natural question is to ask, is it rigid? This question has both combinatorial and geometric aspects. A combinatorial characterization of rigidity in the Euclidean plane has been obtained by Laman in 1970. It is interesting to discover sufficient conditions for graph rigidity. Old and new results will be presented in this talk. Some main results are joint work with Wei Meng, Martin Rolek, Yue Wang, and Gexin Yu. (Received January 16, 2021)