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Catherine Lee* (catherine.lee@yale.edu). *Minimum coprime graph labelings.*

A coprime labeling of a graph G is a labeling of the vertices of G with distinct integers from 1 to k such that adjacent vertices have coprime labels. The minimum coprime number of G is the least k for which such a labeling exists. In this talk, we discuss the minimum coprime number for several well-studied classes of graphs, including the coronas of complete graphs with empty graphs, the joins of two paths, and prisms. In particular, we resolve a conjecture of Seoud, El Sonbaty, and Mahran and three conjectures of Asplund and Fox. We also provide bounds on the minimum coprime number of a random subgraph. (Received September 17, 2019)