

1109-05-209

Robert E. Jamison* (rejam@clemons.edu), 289 White Pine Drive, ASheville, NC 28805.

Geometric Decomposition Graphs.

A *decomposition* of a *host* graph H over a family of *prototype* graphs is a partition of the edge set of H such that the subgraph induced by the edges in each part of the partition is isomorphic to some prototype graph. The *intersection graph* of the decomposition has a vertex for each part of the partition and two parts A and B are adjacent iff they share a common node in H . A graph arising as the intersection graph of a decomposition is a *decomposition graph*. This talk will consider decompositions of a complete graph into parts that form the lines of a linear space. (Received February 01, 2015)