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Robert A. Beeler* (rbeeler@clermson.edu), 150 Ligon St. #1002, Clemson, SC 29631.

Intersection Graphs Generated By An Edge Decomposition.

A *decomposition* \mathcal{D} of a graph H by a graph G 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 G . The intersection graph generated by the decomposition, denoted $I(\mathcal{D})$ has a vertex for each part of the partition, and an edge if the parts of the partition share a common vertex in H . We will discuss several results and open questions regarding the structure of $I(\mathcal{D})$. (Received September 26, 2006)