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ON THE INTEGRITY OF CARTESIAN PRODUCTS OF GRAPHS

Vertex integrity and edge integrity are classical graph vulnerability parameters. While they have been extensively studied for various graph classes, relatively little is known about their behavior on Cartesian products. Benko, Ernst, and Lanphier established asymptotic bounds on the vertex integrity of planar graphs in terms of graph order. Motivated by their work, this talk presents recent results on the vertex and edge integrity of Cartesian products of graphs, including grid graphs, products involving paths and cycles, and several other families of Cartesian products.

This is joint work with Andrzej Żak.