



SEMINARIUM MATEMATYKA DYSKRETNA

wtorek, 18 października 2022 r., godz. 12:30, s. 304 A3-A4

The integrity of grids

Andrzej Żak
WMS AGH

The integrity $I(G)$ of a graph G is defined as follows

$$I(G) = \min\{m(G - S) + |S| : S \subset V(G)\},$$

where $m(H)$ denotes the order of a largest component of H .

This concept was introduced by Barefoot, Entringer, and Swart in 1987, inspired by the idea to measure a computer network's vulnerability. In particular, Baga et al. (1989) computed the integrity of $P_2 \square P_n$ and stated that it would be very interesting to learn the integrity of general products of paths $P_m \square P_n$. We give an approximate solution in the case where m and n are not too distant from each other.