EXPONENTS AND DIAMETERS OF STRONG PRODUCTS OF DIGRAPHS

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Abstract. The exponent of the strong product of a digraph of order $m$ and a digraph of order $n$ is shown to be bounded above by $m + n - 2$, with equality for $\mathbb{Z}_m \boxtimes \mathbb{Z}_n$. The exponent and diameter of the strong product of a graph and a digraph are also investigated.

Key words. Strong product of digraphs, Exponent, Diameter.

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