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TOTAL MAGIC LABELLINGS

Given a finite Abelian group $(A, +)$, consider a graph G . Let labelling

$$f : V \cup E \rightarrow A \setminus \{0\}$$

induce labellings in G with general definition

$$S_x = \sum_{y: y \cap x \neq \emptyset} f(y).$$

The labelling is called *A-magic* labelling if all the sums S_x are equal. In this work we present results for three type of total magic labellings: edge, vertex and total.

This is joint work with Mariusz Woźniak, Sylwia Cichacz-Przeniosło, and Agnieszka Górlach.