

Distance Magic Labelings of Distance Regular Graphs

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A graph G on n vertices is said to be distance magic if there exists a bijection $f : V \rightarrow \{1, 2, \dots, n\}$ and a constant k such that for any vertex x , $\sum_{y \in N(x)} f(y) = k$, where $N(x)$ is the set of all neighbours of x .

In this talk we utilize spectra of graphs to characterize strongly regular graphs admitting distance magic labelings. We also present some necessary conditions for the existence of distance magic labeling of distance regular graphs of diameter 3 and bipartite distance regular graphs.