# Old and new open problems on distance magic-type labeling
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A *distance magic labeling* of a graph $G$ of order $n$ is a bijection $\ell : V \to \{1, 2, \ldots, n\}$ so that there exists a positive integer $\mu$ such that the *weight* $w(v) = \sum_{u \in N(v)} \ell(u) = \mu$ for all $v \in V$, where $N(v)$ is the open neighborhood of $v$. The constant $\mu$ is called the *magic constant* of the labeling $f$. Any graph which admits a distance magic labeling is called a *distance magic graph*. Froncek in [?] defined the notion of group distance magic graphs, i.e. the graphs allowing the bijective labeling of vertices with elements of an Abelian group resulting in constant sums of neighbor labels.

In this talk I shall discuss some recent progress on (group) distance magic labeling, I will present also some open problems.

# References

[1] D. Froncek, *Group distance magic labeling of Cartesian product of cycles*, Aust. J. Combin., 55 (2013) 167–174.