ON THE NUMBER OF 4-REGULAR DISTANCE MAGIC CIRCULANTS

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A circulant $Circ(n, S)$ is a Cayley graph $Cay(G, S)$, where G is the finite cyclic group Z_n. We will suppose that $S \neq \emptyset$, $S = -S$ and $[S] = Z_n$. We call a circulant $G = Circ(n, S)$ distance magic if there exists a bijection ℓ from vertex set of G to the set $\{1, 2, \ldots, n\}$ such that for each vertex x the sum of values of function ℓ through the vertices adjacent to vertex x is constant for all vertices x of G.

Štefko Miklavič and Primož Šparl gave us the full classification of the 4-regular distance magic circulants in their article Classification of tetravalent distance magic circulant graphs, Discrete Mathematics, 2021. In this talk we will determine, for a given number of vertices n, the number of different 4-regular distance magic circulants.