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Constructing the spectrum of packings and coverings for the complete graph with stars with up to five edges. (English) Zbl 1339.05305

Graphs Comb. 32, No. 3, 943-961 (2016).

Summary: The packing and covering problems have been considered for several classes of graphs. For instance, *D. Bryant* and *D. Horsley* [J. Comb. Theory, Ser. B 98, No. 5, 1014–1037 (2008; Zbl 1162.05037)] have investigated the packing problem for paths and cycles, and the packing and covering problems for 3-cubes. The packing and covering problems were settled for stars with up to six edges by *Y. Roditty* [J. Comb. Theory, Ser. A 35, 213–243 (1983; Zbl 0521.05053); Int. J. Math. Math. Sci. 9, 277–282 (1986; Zbl 0608.05028); Ars Comb. 19, 81–93 (1985; Zbl 0578.05013); Ars Comb. 35, 33–64 (1993; Zbl 0796.05074)]. In this paper, for every possible leave graph (excess graph), we find a corresponding maximum packing (minimum covering) of the complete graph with stars with up to five edges.

MSC:

05C70 Edge subsets with special properties (factorization, matching, partitioning, covering and packing, etc.)

Cited in **2** Documents

Keywords:

packing; covering; leave graph; excess graph

Full Text: DOI

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