

T_r -SPAN OF DIRECTED WHEEL GRAPHS

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Abstract

In this paper, we consider T -colorings of directed graphs. In particular, we consider as a T -set the set $T_r = \{0, 1, 2, \dots, r-1, r+1, \dots\}$. Exact values and bounds of the T_r -span of directed graphs whose underlying graph is a wheel graph are presented.

Keywords: T -coloring, digraph, wheel graph, span.

2010 Mathematics Subject Classification: 05C15.

REFERENCES

- [1] J. Fiala, D. Král and R. Škrekovski, *A Brooks-type theorem for the generalized list T -coloring*, SIAM J. Discrete Math. **19** (2005) 588–609.
doi:10.1137/S0895480103437870
- [2] W.K. Hale, *Frequency assignment: theory and applications*, Proc. IEEE **68** (1980) 1497–1514.
doi:10.1109/PROC.1980.11899
- [3] R. Janczewski, *Greedy T -colorings of graphs*, Discrete Math. **309** (2009) 1685–1690.
doi:10.1016/j.disc.2008.01.049
- [4] J.S.-T. Juan, I. Sun and P.-W. Wu, *T -coloring of folded hypercubes*, Taiwanese J. Math. **13** (2009) 1331–1341.
doi:10.11650/twjm/1500405511
- [5] K. Junosza-Szaniawski and P. Rzażewski, *An exact algorithm for the generalized list T -coloring problem*, Discrete Math. Theor. Comput. Sci. **16** (2014) 77–94.
- [6] P. Sivagami and I. Rajasingh, *T -coloring of certain networks*, Math. Comput. Sci. **10** (2016) 239–248.
doi:10.1007/s11786-016-0260-6

- [7] B.A. Tesman, *T-colorings of digraphs*, Congr. Numer. **159** (2002) 167–176.
- [8] B.A. Tesman, *Meaningfulness of list T-colorings of graphs*, Congr. Numer. **207** (2011) 105–109.

Received 3 June 2016
Revised 2 March 2017
Accepted 2 March 2017