GENERALIZED HAMMING GRAPHS: SOME NEW RESULTS

AMARI BEDRANE

AND

BERRACHEDI ABDELHAFID

LIFORCE Laboratory
RO Department, USTHB, Algiers, Algeria

e-mail: bedrane.amari@gmail.com

Abstract

A projection of a vertex x of a graph G over a subset S of vertices is a vertex of S at minimal distance from x . The study of projections over quasi-intervals gives rise to a new characterization of quasi-median graphs.

Keywords: generalized median graphs, Hamming graphs, quasi-median graphs, quasi-Hilbertian graphs.

2010 Mathematics Subject Classification: 2010 MSC 05C75, 05C12.

REFERENCES

- [1] N. Badji and A. Berrachedi, *Generalized median graphs*, in: Actes du Colloque sur l'opt. et les sys. d'infor., COSI'04 (UMM Tizi Ouzou, Algerie, 2004) 216–225.
- [2] H.J. Bandelt, *Retracts of hypercubes*, J. Graph Theory **8** (1984) 501–510.
doi:10.1002/jgt.3190080407
- [3] H.J. Bandelt, H.M. Mulder and E. Wilkeit, *Quasi-median graphs and algebras*, J. Graph Theory **18** (1994) 681–703.
doi:10.1002/jgt.3190180705
- [4] A. Berrachedi, *A new characterization of median graphs*, Discrete Math. **128** (1994) 385–387.
doi:10.1016/0012-365X(94)90128-7
- [5] A. Berrachedi and M. Mollard, *Median graphs and hypercubes, some new characterizations*, Discrete Math. **208/209** (1999) 71–75.
doi:10.1016/S0012-365X(99)00063-1

- [6] F.R.K. Chung, R.L. Graham and M.E. Saks, *A dynamic location problem for graphs*, Combinatorica **9** (1989) 111–131.
doi:10.1007/BF02124674
- [7] W. Imrich and S. Klavžar, *Product Graphs: Structure and Recognition* (John Wiley & Sons, New York, 2000).
- [8] H.M. Mulder, *n-cubes and median graphs*, J. Graph Theory **4** (1980) 107–110.
doi:10.1002/jgt.3190040112
- [9] H.M. Mulder, *The Interval Function of a Graph* (Mathematical Centre Tracks **132**, Mathematisch Centrum, Amsterdam, 1980).
- [10] L. Nebeský, *Algebraic properties of Husimi trees*, Časopis Pešt. Math. **107** (1982) 116–123.
- [11] E. Wilkeit, *The retracts of Hamming graphs*, Discrete Math. **102** (1992) 197–218.
doi:10.1016/0012-365X(92)90054-J

Received 13 June 2016
Revised 16 January 2017
Accepted 16 January 2017