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On vertex-stabilizers of bipartite dual polar graphs

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Abstract

Let X, Y denote vertices of a bipartite dual polar graph, and let GX and GY denote the stabilizers of X and Y in the full automorphism group of this graph. In this paper, a description of the orbits of $GX \cap GY$ in the cases when the distance between X and Y is 1 or 2, is given.

Keywords: Dual polar graphs, automorphism group, quadratic form, isotropic subspace.

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Povzetek

Naj X in Y označujeta vozlišči dvodelnega dualnega polarnega grafa, GX in GY pa njuna stabilizatorja v grupi avtomorfizmov tega grafa. V članku so opisane orbite $GX \cap GY$ v primerih ko je razdalja med X in Y enaka 1 ali 2.

Ključne besede: Dualni polarni grafi, grupa avtomorfizmov, kvadratna forma, izotropski podprostor.