TRUDY INSTITUTA MATEMATIKI I MEKHANIKI UrO RAN

**Vol. 27 No. 1** **2021**

# ON DISTANCE-REGULAR GRAPHS WITH INTERSECTION ARRAYS $\{q^2-1,q(q-2),q+2;1,q,(q+1)(q-2)\}$

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**MSC:** 05C25

**DOI**: 10.21538/0134-4889-2021-27-1-146-156

If a distance-regular graph $\Gamma$ of diameter 3 contains a maximal locally regular 1-code that is last subconstituent perfect, then $\Gamma$ has intersection array $\{a(p+1),cp,a+1;1,c,ap\}$ or $\{a(p+1),(a+1)p,c;1,c,ap\}$, where $a=a_3$, $c=c_2$, and $p=p^3_{33}$ (Jurišić, Vidali). In the first case, $\Gamma$ has eigenvalue $\theta_2=-1$ and the graph $\Gamma_3$ is pseudogeometric for $GQ(p+1,a)$. If $a=c+1$, then the graph $\bar{\Gamma}_2$ is pseudogeometric for $pG_2(p+1,2a)$. If in this case the pseudogeometric graph for the generalized quadrangle $GQ(p+1,a)$ has quasi-classical parameters, then $\Gamma$ has intersection array $\{q^2-1,q(q-2),q+2;1,q,(q+1)(q-2)\}$ (Makhnev, Nirova). In this paper, we find possible automorphisms of a graph with intersection array $\{q^2-1,q(q-2),q+2;1,q,(q+1)(q-2)\}$.

Keywords: distance-regular graph, generalized quadrangle, graph automorphism.

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Received September 10, 2020
Revised December 20, 2020
Accepted January 11, 2021

**Funding Agency:** This work was supported by the Russian Foundation for Basic Research — the National Natural Science Foundation of China (project no. 20-51-53013).

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Cite this article as: A. A. Makhnev, D. V. Paduchikh. On distance-regular graphs with intersection arrays $\{q^2-1, q(q-2), q+2; 1, q, (q+1)(q-2)\}$, *Trudy Instituta Matematiki i Mekhaniki UrO RAN*, 2021, vol. 27, no. 1, pp. 146–156 .