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### ON THE LOCAL STRUCTURE OF DISTANCE-REGULAR MATHON GRAPH

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We study the structure of local subgraphs of distance-regular Mathon graphs of even valency. We describe some infinite series of locally  $\Delta$ -graphs of this family, where  $\Delta$  is a strongly regular graph that is the union of affine polar graphs of type “–,” a pseudogeometric graph for  $pG_l(s, l)$ , or a graph of rank 3 realizable by means of the van Lint–Schrijver scheme. We show that some Mathon graphs are characterizable by their intersection arrays in the class of vertex transitive graphs.

Keywords: arc-transitive graph, distance-regular graph, antipodal cover, Mathon graph, (locally) strongly regular graph, automorphism.

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