

# A Note on Triangle-free Distance-regular Graphs with a Pentagon\*

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## Abstract

Let  $\Gamma$  denote a distance-regular graph with classical parameters  $(D, b, \alpha, \beta)$  and  $D \geq 3$ . Assume the intersection numbers  $a_1 = 0$  and  $a_2 \neq 0$ . We show the intersection number  $c_2$  is either 1 or 2.

**Keywords:** Distance-regular graphs, classical parameters.

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