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*A local density condition for triangles.* (In English)

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Authors' abstract: Let  $G$  be a graph on  $n$  vertices and let  $\alpha$  and  $\beta$  be real numbers,  $0 < \alpha, \beta < 1$ . Further, let  $G$  satisfy the condition that each  $[\alpha n]$  subset of its vertex set spans at least  $\beta n^2$  edges. The following question is considered. For a fixed  $\alpha$  what is the smallest value of  $\beta$  such that  $G$  contains a triangle.

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Classification:

05C35 Extremal problems (graph theory)

Keywords:

local density condition; triangle