

# Number of maximal triangle-free graphs

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Paul Erdős suggested the following problem: Determine or estimate the number of maximal triangle-free graphs on  $n$  vertices. We show that the number of maximal triangle-free graphs is at most  $2^{n^2/8+o(n^2)}$ , which matches the previously known lower bound. Our proof uses among others the Ruzsa-Szemerédi triangle removal lemma, and recent results on characterizing of the structure of independent sets in hypergraphs.

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