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Decomposing graphs into edges and triangles

In 1966 Erdős, Goodman and Pósa showed that every graph G of order n has an edge-decomposition into at most $n^2/4$ cliques (and, in fact, edges and triangles are enough). If one seeks to minimise the sum of the sizes of the cliques in a decomposition, the corresponding minimum is $n^2/2$ (a result due to Győri, Kostochka; Chung; Kahn). It was conjectured by Győri and Tuza that edges and triangles suffice here too, up to a constant. We give a proof of this conjecture using the flag algebra method of Razborov, and consider some extensions to arbitrary linear cost functions.