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Title: Edge proximity and matching extension in planar graphs

Abstract: A graph G is said to have property $E(m, n)$ if it contains a perfect matching and for every pair of disjoint matchings M and N in G with $|M| = m$ and $|N| = n$, there is a perfect matching F in G such that $M \subseteq F$ and $N \cap F = \emptyset$. It is well known that no planar graph is $E(3, 0)$ or even $E(2, 1)$. If we consider even planar triangulations and demand that the edges are suitably far apart we can improve on these results. In this talk we will look at some of these improvements and consider the properties $E(m, n)$ for planar triangulations when various distance restrictions are imposed on the edges to be included and avoided in the extension.