Maximal Nontraceable Graphs

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Abstract

A graph G is *traceable* if it contains a spanning path. G is said to be *maximal nontraceable* (or MNT) if G is nontraceable and $G + xy$ is traceable for every pair x, y of nonadjacent vertices of G. In this talk we will discuss several properties of MNT graphs. In particular, we will see how claw-free MNT graphs relate to the (simple to state but difficult to solve) Matthews-Sumner Conjecture regarding claw-free graphs and hamiltonicity.