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Meyniel's conjecture on graphs of bounded degree

The game of Cops and Robbers is a well known pursuit-evasion game played on graphs. It has been proved that cubic graphs can have arbitrarily large cop number $c(G)$, but the known constructions show only that the set $\{c(G) \mid G \text{ cubic}\}$ is unbounded. In this talk we prove that there are arbitrarily large subcubic graphs G whose cop number is at least $n^{1/2-o(1)}$ where $n = |V(G)|$. We also show that proving Meyniel's conjecture for graphs of bounded degree implies a weaker version of Meyniel's conjecture for all graphs.