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2-limited broadcast domination on subcubic graph

For a graph G, a function $f : V(G) \to \{0, 1, 2..., diam(G)\}$ is called a broadcast on G. For each vertex $u \in V(G)$, if there exists a vertex v in G such that $f(v) > 0$ and $d(u, v) \leq f(v)$, then f is called a dominating broadcast on G. In this talk, we consider a limited version of the broadcast, where $f : V(G) \to \{0, 1, 2\}$. We will prove that the 2-limited broadcast domination number of a (C_4, C_6)-free cubic graph is at most a third of the its order. For this purpose, we prove a stronger result on (C_4, C_6)-free subcubic graph. This is joint work with Mike Henning and Gary MacGillivray.