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Dominating vertex covers: a searchlight problem

Abstract: Searchlight problems, inspired by the famous art gallery problem, attempt to use searchlights to find an intruder in a graph or polygon. We study a variation on the searchlight problem and consider the vertex-edge domination number of a graph. Our main result is to show the vertex-edge domination number of a cubic graph of order n is at most $9n/26$. This is joint work with W.F. Klostermeyer and A. Yeo.