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Arboricity and feedback sets in cographs

Arboricity is a graph parameter akin to chromatic number, in that it seeks to partition the vertices into the smallest number of sparse subgraphs. Where for the chromatic number we are partitioning the vertices into independent sets, for the arboricity we want to partition the vertices into forests. Arboricity is NP-hard in general, so we study the problem in the case of cographs. We present results regarding arboricity at most two and partial results about the general case. We also analyse the problem of finding a q -colourable feedback set in cographs, generalizing the problem of the independent feedback set.