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The Cop Number and Tree Decompositions

We give a new bound on the cop number in terms of the treewidth of a graph. For some families of graphs, it is an improvement upon the bound of Joret, Kaminski, and Theis. However, our results give a new approach to bounding the cop number by exploiting properties of tree decompositions.

*joint work with A. Bonato, N.E. Clarke, S. Finbow, and S. Fitzpatrick