

Representatives of Special Families in Graphs

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In 2017, Hedetniemi asked the question “for which graphs G does the indexed family $\{N_G(v) \mid v \in V(G)\}$ of open neighborhoods have a system of distinct representatives?” In the last four years we have answered that original question and explored necessary conditions and looked at some of the associated parameters. Now, we move on to other special set families in graphs and examine whether they do or do not make a system of distinct representatives.