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Stephen T. Hedetniemi* (hedet@clermson.edu), School of Computing, Clemson University, Clemson, SC 29634. *My Favorite Graph Coloring and Domination Conjectures.*

This talk will discuss aspects of several well-known and several not so well-known conjectures and open problems in graph theory, including: (1) the 1963 Vizing Conjecture about the domination number of the Cartesian product of two graphs; (2) the 1966 Hedetniemi Conjecture about the chromatic number of the tensor product of two graphs; (3) the 1981 Path Partition Conjecture; (4) the 1991 Kulli-Sigarkanti Conjecture about the inverse domination number of a graph; (5) the 1995 Hedetniemi Conjecture about the monotonicity of the Queen's domination number; (6) the 1995 problem of the complexity of a nearly perfect bipartition; (7) the 1999 Gu Conjecture about the domination number of prisms; (8) the 1998 Hedetniemi Conjecture about the achromatic and pseudoachromatic numbers of trees; (9) the 2004 problem of the iterated domination and iterated irredundance numbers of planar graphs; and (10) the 2011 problem of the existence of a graph G having a repeating γ -graph sequence.

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