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*The Deduction Game*

The deduction game is a variant of the game of cops and robbers in which cops must capture an invisible robber, but cannot communicate with cops on other vertices to co-ordinate strategy. Thus, cops must "deduce" how other cops will move and make their own moves accordingly. We discuss characterizations of the game and connections with zero-forcing. We give bounds on the number of cops required to capture the robber, and discuss the game in some classes of graphs. This talk includes joint work with Danny Dyer, Mozghan Farahani, Krishna Narayanan, Kerry Ojakian, Mingyu Xiao and Boting Yang.