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Dalton Allan* (alland@mit.edu), 5402 Nakoma Drive, Midland, MI 48640, and **Linda M. Dunklee** and **Sofya Vorotnikova**. *Variations of Cops and Robber on Graphs*.

We consider the variation of the game of Cops and Robber when there are fewer cops than the cop number of the graph. However, cops are allowed to use two kinds of devices - traps and doors. Devices are placed on vertices and prevent the robber from entering them. Traps can be moved around the graph and doors are stationary. In this presentation we present general results on the number and placement of doors and discuss the usage of devices on different classes of graphs and specific graphs. (Received August 06, 2012)