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Leslie Hogben* (hogben@aimath.org). *Product throttling for zero forcing, power domination, and Cops and Robbers.*

The graph processes of power domination and zero forcing are involved in the analysis of electrical network monitoring and other applications, and pursuit-evasion games such as Cops and Robbers can be used to analyze intrusion detection. For each of these and other related parameters, the number of rounds that it takes to finish the process (time cost, called propagation or capture time) is also studied. When the process may use more than the minimum number of resources, the cost trade-off between time and resources is called throttling. Throttling the sum of time and resources has been studied for nine years. Recently product throttling, i.e., minimizing the product of time and resources, has been studied for a few parameters. This talk will survey results on product throttling. (Received August 14, 2020)