1150-05-389 **Beth Bjorkman*** (bjorkman@iastate.edu). *Infectious Power Domination for Hypergraphs.*

The power domination problem seeks to find the placement of the minimum number of sensors needed to monitor an electric power network. On graphs the power domination process is a domination step followed by a zero forcing step. We generalize the power domination problem to hypergraphs using the infection rule from Bergen et al (2018): given an initial set of observed vertices, S_0, a set $A \subseteq S_0$ may infect an edge e if $A \subseteq e$ and for any unobserved vertex v, if $A \cup \{v\}$ is contained in an edge, then $v \in e$. We combine a domination step with this infection rule to create *infectious power domination*. We compare this new parameter to the previous generalization by Chang and Roussel (2015). We provide general bounds and determine the impact of some hypergraph operations. (Received July 14, 2019)