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Optimal Graph Burning Sequences and the Vertices They Contain

Graph burning is a process that models a social contagion spreading through a network. Many papers that study graph burning focus on how quickly the process can be completed on a given graph or a given family of graphs. In this talk, we instead focus on determining which vertices enable a social contagion to spread through a given graph in optimal time. We explore this idea for various families of graphs. We also demonstrate how to construct graphs that have relatively few vertices that the contagion can use to spread in optimal time. Joint work with Beth Ann Austin, Alfie Davies, Danny Dyer, and Logan Pipes.