

Abstract Submitted  
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**Epidemic spreading on scale-free networks with dynamic centrality** DOUGLAS HOBLET, SCOTT HILL, University of Toledo — Viruses have a vanishing epidemic threshold when they spread across a static scale-free network: in the thermodynamic limit, the virus will persist indefinitely on the network no matter how low its contagion rate. In this presentation, we explore the epidemic threshold of a virus on a dynamic scale-free network under the condition of *dynamic centrality*, in which the virus is constrained to one of a rotating series of scale-free subnetworks with varying central “hubs.” Using simulations, we compare the epidemic threshold of the dynamic state to that of the static scale-free network as the network increases in size.

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