

Abstract Submitted
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Epidemics on dynamic networks with spatial structure LEAH SHAW, IRA SCHWARTZ, Naval Research Lab — When a population is faced with an epidemic outbreak, individuals are likely to modify their social behavior to avoid exposure to the disease. Epidemic models that assume a fixed network of contacts do not address this phenomenon. We consider an extension of the model of Gross et al (PRL 96: 208701, 2006), in which the contact network is rewired dynamically so that susceptibles avoid contact with infectives. We add a spatial structure to the network and explore both the network geometry and the dynamics of the infection.

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