

Abstract Submitted  
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**Epidemics in adaptive networks with community structure** LEAH SHAW, ILKER TUNC, College of William and Mary — Models for epidemic spread on static social networks do not account for changes in individuals' social interactions. Recent studies of adaptive networks have modeled avoidance behavior, as non-infected individuals try to avoid contact with infectives. Such models have not generally included realistic social structure. Here we study epidemic spread on an adaptive network with community structure. We model the effect of heterogeneous communities on infection levels and epidemic extinction. We also show how an epidemic can alter the community structure.

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