

Abstract Submitted
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Response of a simple dynamical network to stress or strain NASRIN AFZAL, MICHEL PLEIMLING, Virginia Polytechnic Institute and State University — Motivated by a recent series of experiments that study the response of the cytoskeleton of living cells to mechanical forces, we study numerically a simple dynamical network where new links are formed and existing links are dissolved with probabilities that can depend on time. We thereby mimic mechanical stress and strain by protocols where we rapidly change the geometry of the network. Interestingly, the number of links in the network displays a nontrivial time dependence during these protocols.

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