

Abstract Submitted  
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**Time-dependent mechanical response of a network model for the cytoskeleton**<sup>1</sup> NASRIN AFZAL, MICHEL PLEIMLING, Virginia Tech — Motivated by a series of experiments that study the response of the cytoskeleton in living cells to time-dependent mechanical forces, we investigate through Monte Carlo simulations a three-dimensional network subjected to time-dependent perturbations. After having prepared the system in a relaxed state, time-dependent shear or stress is applied and the response is monitored. We discuss the possible implications of our results for the time-dependent mechanical response of the cytoskeleton.

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