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Title: **Dynamic transitions in interacting spin systems**

We study dynamic properties of spins with dipole interactions keeping in mindfilms made of molecular magnets. The dynamic rules allow spins to flip between their two energy minima only under resonant conditions when the change of the Zeeman energy in magnetic dipolar field of other spins is smaller then W. Transitions of resonating spins can result in opening or closing resonances in their neighbors leading to the collective dynamics at sufficiently large density of resonating spins. We formulate and solve theequivalent dynamic percolation problem for the Bethe lattice with z interacting neighbors and find that depending on the density of resonant spins and the number of neighbors the system has either one ($2<z<6$) or two ($z > 5$) kinetictransitions. The first transition is continuous and associated with the formation of an infinite cluster of coupled resonant spins similarly to the static percolation transition. The latter transition, $z>5$, is discontinuous and associated with the abrupt increase in thedensity of resonant spins to near unity. These findings are confirmed by Monte Carlo simulations of realistic finite-range 2D models. Surprisingly, for the case of dipole interactions, the system is always found in the "delocalized'' phase.