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Thermalization in isolated quantum many-body systems and dependence on initial states EDUARDO TORRES-HERRERA, LEA SANTOS, Yeshiva University — We study the viability of thermalization in isolated quantum many-body systems described by one-dimensional Heisenberg spin-1/2 models. We show that the onset of thermal equilibrium depends on the interplay between initial states, observables and regimes. Our numerical studies are based on the spectrum analysis of the system and on its long-time evolution after a quench.

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