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Sub-Grid Viscosity in Neutron Star Simulations with SpEC[1]
ALEXANDER KNIGHT, Univ of New Hampshire — Viscosity in neutron star simulations is capable of replicating the angular momentum transportation and heating of some instabilities that are currently too costly to capture in simulations, yet affect the gravitational wave, matter outflows, neutrino emission, and remnant of neutron star binaries. In this talk, we will present the results of SpEC simulations using sub-grid viscosity models, and compare the costs and behaviors of different viscosity models.

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