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Post-merger: numerical relativity meets turbulence MATTHEW DUEZ, Washington State Univ, SXS COLLABORATION — Compact object binary mergers with neutron stars are detectable both electromagnetically and via gravitational waves, but modeling the post-merger evolution is a difficult general relativistic radiation magnetohydrodynamic (MHD) problem, involving multiple length and time scales. This has driven numerical relativists to pursue strategies for approximately capturing unresolvable turbulent dynamo and transport effects, with consequences for remnant collapses, gamma ray bursts, and outflows. In this talk, I will describe post-merger simulations with neutrinos and MHD carried out by the SXS collaboration and possible strategies for dealing with subgrid scale effects.

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