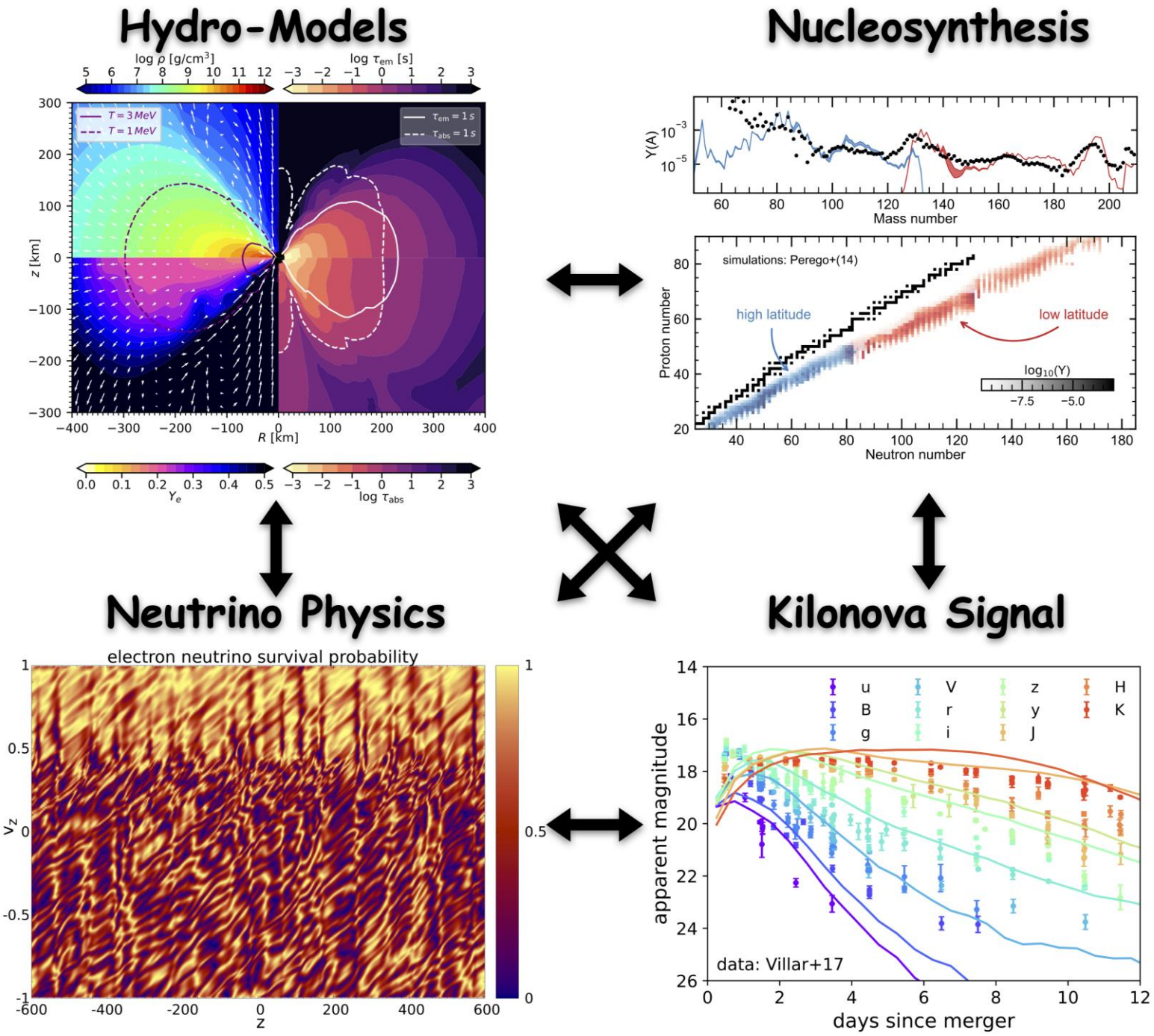
# ExtreMe Matter Institute & IReNA

EMMI & IReNA Workshop

# Remnants of neutron-star mergers – Connecting hydrodynamics models to nuclear, neutrino and kilonova physics

GSI Darmstadt, Germany, October 17 – 20, 2022

The follow-up analysis of the binary neutron star merger event GW170817 suggests that a large fraction of the outflow observed as a kilonova was ejected during the secular evolution of the merger remnant. Theoretical models of the remnant and its ejecta are particularly challenging as they call for a profound understanding of the long-term evolution of and interactions between different ejecta components, turbulent viscosity, neutrino transport, and neutrino flavor oscillations. The workshop will bring together experts from the four areas hydrodynamic simulations, neutrino-flavor physics, r-process nucleosynthesis, and kilonova modeling. The goal is to identify the main shortcomings of current models and to discuss strategies for how to propagate neutrino-hydrodynamic modeling uncertainties into r-process calculations and kilonova predictions.




credits (images): Organizers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**Website:**
https://indico.gsi.de/e/mergerremnants

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