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(I) Neutrinos from the past, present and future: passage through compact objects

Monday 6 June 2022 16:30 (30 minutes)

Elusive neutrinos are a window to the interior of compact objects, potentially unveiling the behavior of phenomena such as neutron star mergers, core-collapse Supernovae, and the synthesis of elements. As standalone detections or in the context of multi-messengers signals, neutrinos offer opportunities to understand our Universe in unprecedented ways. Interpreting neutrino observations relies on models of neutrino emission and their interaction with highly dense matter. In this talk, I shall discuss neutrino emission from collapsars and neutron-star mergers, and the possibility of overcoming challenges in nuclear models through their detection.

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