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Nucleosynthesis and neutrino physics in compact object mergers¹

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The merger of two compact objects produces a range of environments suitable for interesting element synthesis, from cold or mildly heated prompt ejecta to hot winds influenced by the neutrino emission from the resulting accretion disk. The nuclei newly synthesized in these environments can power an electromagnetic transient via their radioactive decay and likely make key contributions to galactic chemical evolution. Here we will describe how new and anticipated advances in nuclear and neutrino physics are shaping our understanding of nucleosynthesis in this important astrophysical site.

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