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Neutrinos and black hole accretion disk nucleosynthesis¹ REBECCA SURMAN, Union College

The collapse of a massive, rotating star or the collision of two compact objects can produce a stellar mass black hole surrounded by a rapidly accreting disk of debris. This accretion disk is a source of intense neutrino emission, which can influence the dynamics of the event and shape the element synthesis that occurs in the disk outflows. Here we discuss the latter, noting in particular the influence of neutrino oscillations and neutrino general relativistic effects on the outflow nucleosynthesis.

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