

Kilonova modeling

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Kilonovae are optical-IR transients powered by radioactive decay of r-process elements produced in neutron star merger ejecta. The nature of r-process elements is imprinted in kilonova light curves and spectra. In this talk, I review kilonova light curve modelings, opacity of heavy elements, and nebular emission. In addition, I will talk about what we learned from the first neutron star merger, GW170817 and the JWST observations of a kilonova candidate associated with a long GRB 230307A, and open issues.

Author: HOTOKEZAKA, Kenta

Presenter: HOTOKEZAKA, Kenta