

Multimessenger observations of gravitational wave events in the Rubin era

Joint observations of gravitational waves and electromagnetic waves from compact object mergers enable a rich variety of multimessenger analyses, ranging from studies of the equation of state of neutron stars to measurements of the expansion rate of the Universe. Wide field surveys such as Rubin LSST will be crucial in the identification of the next electromagnetic counterparts to enable all of those science measurements. In this talk, I will describe the possible optical counterparts to LIGO/Virgo/KAGRA gravitational wave mergers, how we are searching for them in Dark Energy Camera data, and how a future Target of Opportunity program with Rubin and other upcoming facilities could address this challenge.

Presenter: Dr PALMESE, Antonella (CMU)

Session Classification: Keynote speakers