## The Modern Physics of Compact Stars and Relativistic Gravity 2019



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## Implications of Binary Neutron Star and Black Hole-Neutron Star Mergers for Neutron Stars and Dense Matter

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Newly discovered binary neutron star and black hole-neutron star mergers via gravitational waves can offer interesting constraints on the properties of dense matter. There are also important implications for the structure and composition of neutron stars. In the case of black hole-neutron star mergers, it is shown how to infer information about the components from GCN announcements, long before the LIGO/VIRGO collaboration publishes their results. New information from X-ray observations of neutron stars, such as from the Neutron Star Interior Composition ExploreR (NICER), can be combined with the gravitational wave data to further constrain these properties.

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