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Self interacting dark matter halo and binary neutron star mergers.[1] LAN NGUYEN, University of Notre Dame — We study the gravitational effect of dark matter on compact astronomical objects. The MeV dark matter model in which dark matter self-interaction can be constrained by observation of gravitational wave from binary neutron star mergers and how the density of the dark matter affects the physical properties of the neutron star and its tidal deformability.

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