

Invited Speaker

Name: William East

Affiliation: Perimeter Institute

Title: Compact Object Mergers Beyond Einstein

Abstract: Gravitational wave observations of black hole and other compact object mergers have enabled unparalleled tests our understanding of gravity, and have already been used to constrain a number of possible deviations from general relativity. However, despite the success of these observations, there is dearth of theoretical predictions for what happens in the most dynamical stage of compact object mergers for many alternative theories. Focusing on the particular case of Einstein-scalar-Gauss-Bonnet gravity, and utilizing some recently developed tools for carrying out full, non-perturbative evolutions, I will discuss the mergers and potential observational signatures of scalarized black holes and neutron stars in modified gravity.