Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Gravitational Wave Identification of High Mass-Ratio Black Hole Neutron Star Mergers PABLO LAGUNA, BHAVESH KHAMESRA, MIGUEL GRACIA LINARES, RICHARD UDALL, DEIRDRE SHOEMAKER, Georgia Inst of Tech — Depending on the compactness of the neutron star and the mass of the black hole, the coalescence of a mixed binary system would yield a disruption of the neutron star before it mergers with the black hole or a coalescence in which the neutron star is essentially swallowed by the black hole almost undisturbed. The latter case will occur for cases of high mass-ratio. We present results of a study aimed at characterizing the ability of LIGO/VIRGO in discerning between binary black hole and mixed binary mergers when the neutron star undergoes minimal disruption.

Pablo Laguna
Georgia Inst of Tech

Date submitted: 08 Jan 2020 Electronic form version 1.4