

Abstract Submitted  
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**Beyond the Horizon Distance: LIGO-Virgo can Boost Gravitational-Wave Detection Rates by Exploiting the Mass Distribution of Neutron Star and Black Hole Binaries** ZSUZSA MARKA, IMRE BARTOS, SZABOLCS MARKA, Columbia University, LIGO COLLABORATION, VIRGO COLLABORATION — We explore the advantage of focusing on regions of the parameter space in gravitational-wave searches for the binary mergers of neutron stars and black holes. For neutron star binaries, we show that taking advantage of their narrow observed mass distribution could improve detection rates, in some cases by more than 50

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