

Abstract Submitted  
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**Learning from Future Gravitational Wave Detections: Modeling and Radiated Quantities** LIONEL LONDON, FRANK OHME, SEBASTIAN KHAN, ALEX VANO-VINUALES, CHINMAY KALAGHATGI, Cardiff University, SASCHA HUSA, Balearic Islands University, NATHAN JOHNSON-MCDANIEL, International Centre for Theoretical Sciences, LIGO SCIENTIFIC COLLABORATION COLLABORATION — Future gravitational wave detections will enable us to directly learn which binary black hole populations are astrophysically relevant. In turn, increased knowledge of these populations allows us to perform targeted modeling studies that enable the inference of bulk features, such as radiated energy and peak luminosity. In this talk I will present strategies to followup future detections with targeted modeling studies. As an example of utility, I will discuss the inference of radiated energy and peak luminosity of binary black hole mergers.

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