

# Unbiased standard siren cosmology with joint GW and GRB observations

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Joint observations of gravitational-wave and GRB events are among the best standard siren prospects for cosmology. The actual possibility of obtaining an accurate measurement of the Hubble constant is however plagued by an intrinsic source of bias. This stems from the strong selection effect for the coincident detection of the GRB, which happens only for sources with particularly small inclination. We will show that this problem can be overcome by reconstructing the a-priori unknown electromagnetic detection probability from the data. This leads at the same time to an unbiased measurement of the Hubble constant, to infer the properties of GRB emission, and to measure the individual viewing angles in a precise and accurate way.

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