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Inferring additional physics through model-agnostic signal reconstructions

Post-detection analyses targeting inferences of source properties are often time-consuming and computationally expensive. Assumptions concerning source properties, such as the circularity of binary orbits or the absence of precessing component spins, are routinely made to reduce analysis costs. We shall present a method that may be used to infer the presence (or the lack thereof) of physical effects NOT captured by signal waveforms commonly employed in analysing observed GW signals with a latency similar to real-time analysis pipelines and thus help perform targeted follow-up analyses.

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