

Gravitational wave echoes are among the smoking gun signatures of exotic compact objects with near-horizon structure. Recently there have been observational claims that echoes are indeed present in stretches of data from Advanced LIGO and Advanced Virgo immediately following gravitational wave signals from presumed binary black hole mergers, as well as a binary neutron star merger. In this talk we deploy a morphology-independent search algorithm for echoes that (a) computes Bayesian evidences for a signal model, an instrumental glitch model, and stationary, Gaussian noise; (b) is able to reconstruct a possible echoes signal with minimal assumptions; and (c) provides quantitative information on how the content of the gravitational wave bursts change from one echo to the next. We establish the robustness of the method through simulations and apply the algorithm to the LIGO-Virgo gravitational wave detections from the first and second observing runs. We find no statistically significant evidence for echoes.