

The existence of black hole echoes was reported soon after the first detection of gravitational waves from binary black hole mergers. There are various discussions about the possible modified nature of the event horizon of a black hole when we take into account quantum gravity effects. In some proposals, it was claimed that the horizon may behave as an almost completely reflecting boundary, and the presence of echoes is expected. In the early analysis a very simple assumption for the echo waveform was assumed. Here we consider to improve the template waveform to a more physically motivated one, and examine if there is any increase of the significance of the claimed detection.