Black holes mimickers, e.g. boson stars, are compact objects with similar properties to black holes. The gravitational wave signal emitted by a binary of such putative objects during the inspiral phase is difficult to
distinguish from the one emitted by a black hole binary. Nevertheless, significant differences might appear in the
post merger signal. Inspired by the known behavior of black holes, neutron stars and boson stars we propose a toy model that captures potential characteristics of such systems composed by such mimickers.
This model can be exploited to assess how well such signal could be recovered with gravitational waves observations from
earth based detectors using standard templates. We find that if any of the black hole binary candidates in the O1/O2 catalogue released by the LIGO/VIRGO collaboration corresponded to such objects we could have detected it, enforcing our belief that those are indeed black hole binaries.

Keywords: Black Holes, Neutron Stars