

## 12th Iberian Gravitational Waves Meeting



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# Black holes in fundamental field environments

*Tuesday 7 June 2022 09:00 (45 minutes)*

There are several well-motivated scenarios in which fundamental fields could be present around black holes at a sufficient level to impact on the gravitational waveform of a merger. However, developing templates for the impact of such fields is challenging - in particular one issue that requires more attention is how to select and impose appropriate initial conditions for the field that represent their state at the late, dynamical, strong field phase of the merger. A correct specification will be crucial in obtaining sufficiently accurate waveforms and in avoiding degeneracies with other effects. I will describe the recent and ongoing work in this direction.

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