

Niklas Becker (Frankfurt), "Intermediate Mass Ratio Inspirals in Dark Matter Spikes"

Friday 26 November 2021 17:00 (30 minutes)

To test the particle nature of dark matter, its influence on the inspiral of stellar mass black holes onto intermediate mass black holes (IMBHs) can be studied. If the IMBH forms an adiabatic dark matter spike around it, the smaller black hole will gravitationally interact with and accrete the dark matter particles. Thus, the dark matter spike can be studied and mapped out with the gravitational wave signal that will be observable by LISA.

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