

Detecting scalar charge with EMIRIs

Thursday 6 July 2023 11:00 (20 minutes)

I will first discuss under which circumstances can black holes carry a scalar charge and what this implies for how that charge scales with the mass of the black hole. I will then use this insight to argue that EMIRIs are an ideal system for searches of new fundamental scalars. I will lay out the framework for modelling EMIRIs in this context and present some first forecasts on LISA's ability to measure scalar charge.

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