

Extreme mass-ratio inspirals into black holes surrounded by boson clouds

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Boson clouds can form through superradiant instabilities of ultralight bosons around spinning black holes. The formation of boson clouds leads to a number of potentially detectable signatures, among them the possibility that they can affect the dynamics of binary black hole systems. In this talk I will review recent work aiming at studying extreme-mass-ratio systems in which a small compact object evolves around a massive black hole surrounded by a boson cloud.

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