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## Dynamical friction from scalar dark matter

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Light bosonic scalars (e.g. axions) may form clouds around black holes via superradiant instabilities, or via accretion if they form some component of the dark matter. It has been suggested that their presence may lead to a distinctive dephasing of the gravitational wave signal when a small compact object spirals into a larger black hole. Motivated by this, we study numerically the dynamical friction force on a black hole moving at relativistic velocities in a background scalar field with an asymptotically homogeneous energy density.

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