

Abstract Submitted
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Effective diffusion of confined active Brownian swimmers¹ MARIO SANDOVAL, LEONARDO DAGDUG, Universidad Autonoma Metropolitana — We find theoretically the effect of confinement and thermal fluctuations, on the diffusivity of a spherical active swimmer moving inside a two-dimensional narrow cavity of general shape. The explicit formulas for the effective diffusion coefficient of a swimmer moving inside two particular cavities are presented. We also compare our analytical results with Brownian Dynamics simulations and we obtain excellent agreement.

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