

Abstract Submitted  
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**Microswimmers near elastic interfaces** SANKALP NAMBIAR, Nordita, JOHN WETTTLAUFER, Yale University, Nordita — The motion of a swimming microorganism encountered in natural settings is often subject to external cues. These could, for instance, be on account of a complex imposed flow, swimmer-swimmer interactions, or due to presence of boundaries. While a typical scenario consists of a combination of such interactions, of particular interest is the role of confinement. In the latter case, simulations and theories have shown that microswimmers subject to confinement between parallel rigid boundaries exhibit an excess accumulation near the boundaries. In turn, the active pressure forces on the wall increase with increase in confinement. In the present study, we relax the rigidity constraint and consider the interaction of microswimmers with elastic interfaces. In particular, the forces that develop on account of the swimmer-wall interaction are analyzed, for a linearly elastic wall.

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