

Abstract Submitted  
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**Hydrodynamics of Sessile Choanoflagellates**<sup>1</sup> GREG BUSTAMANTE, HOA NGUYEN, Trinity University — Choanoflagellates are unicellular organisms whose intriguing morphology includes a set of collars/microvilli emanating from the cell body, surrounding the beating flagellum. Certain types of choanoflagellates are sessile, i.e., they can attach themselves to a substrate via a pedicel which extends from the cell body. We investigate the interactions of the flagellum - microvilli - pedicel system in the feeding behavior of sessile choanoflagellates using the method of images for regularized Stokeslets. The results of the fluid-particle motions and streamlines explain their effective capture of bacteria in the fluid.

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