

Abstract Submitted
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Paramecium swimming in a capillary tube SAIKAT JANA, SUNGH-WAN JUNG, Engineering Science & Mechanics, Virginia Tech — Micro-organisms exhibit different strategies for swimming in complex environments. Many micro-swimmers such as paramecium congregate and tend to live near wall. We investigate how paramecium moves in a confined space as compared to its motion in an unbounded fluid. A new theoretical model based on Taylor's sheet is developed, to study such boundary effects. In experiments, paramecia are put inside capillary tubes and their swimming behavior is observed. The data obtained from experiments is used to test the validity of our theoretical model and understand how the cilia influence the locomotion of paramecia in confined geometries.

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