Abstract Submitted
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Hydrodynamic interactions and their role on the dynamics of bacterial predators.[1] HOSSEIN JASHNSAZ, Physics Department, IUPUI, Indianapolis, IN 46202, MOHAMMED AL JUBOORI, Biomedical Engineering, IUPUI, Indianapolis, IN 46202, COREY WEISTUCH, Department of Applied Mathematics and Statistics, Stony Brook University, Stony Brook, NY 11794, TYLER NGUYEN, Stark Neurosciences Research Institute, IUSM, Indianapolis, IN 46202, NICK MILLER, Biomedical Engineering, IUPUI, Indianapolis, IN 46202, VIKTORIA MEYERHOFF, Mechanical Engineering, IUPUI, Indianapolis, IN 46202, KYLE PROCTOR, BRYAN MCCOY, Biological Chemistry, IUPUI, Indianapolis, IN 46202, STEPHANIE PERKINS, GREGORY ANDERSON, Biology Department, IUPUI, Indianapolis, IN 46202, STEVE PRESSE, Physics Department, IUPUI, Indianapolis, IN 46202 — We consider the effects of hydrodynamics on the behavior of bacterial predators searching for bacterial prey. Experimentally, we find that bacterial predators respond to external flow fields in addition to responding to their own self-generated flow fields neighboring surfaces and finite boundaries. We will discuss the implications of this finding on bacterial hunting strategies.

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