

Abstract Submitted  
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**Active particles near surfaces** ARMAN ABTAHI, Department of Mechanical Engineering, University of British Columbia, GWYNN ELFRING, Department of Mechanical Engineering, Institute of Applied Mathematics, University of British Columbia — Active particles (swimming microorganisms or synthetic active particles) are very often situated near no-slip surfaces. The presence of the interface modifies the flow field generated by active particles, leads to changes in the dynamics of individual active particles, but also affects the hydrodynamic interactions with nearby particles. We investigate the role of hydrodynamic interactions on the dynamics of swimmers near walls by means of a modified Stokesian Dynamics approach. We also discuss the tendency of flexible swimmers to deform due to hydrodynamic interactions with a no-slip interface thereby altering their near-wall dynamics.

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