

Abstract Submitted
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Anisotropic **sur-**
face friction STEPHAN KOEHLER, IBAR DELACRUZ, NATHAN NESBITT,
IAN MORSE, Physics, WPI — Contrary to the literature, we find that altering
the surface roughness has a large effect on intruder drag in the quasi-static regime.
Moreover we pattern the surface with a sawtooth texture and observe anisotropic
drag: when the texture is comparable in size to the bead diameter the frictional
force is 1/3rd greater for the flow directed against the sawtooth versus the opposite
flow. We present a systematic study showing the dependence of the anisotropy on
the texture's orientation.

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