

Abstract Submitted  
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**The interaction of a walking droplet and a pillar**<sup>1</sup> JOHN BUSH, MIT, DANIEL HARRIS, UNC, PIERRE-THOMAS BRUN, MIT — Droplets may bounce on the surface of a vibrating fluid bath, propelled forward by their own pilot-wave field. With a view to better understanding the interaction of such walking droplets with boundaries, we consider their impact on a submerged circular pillar. While simple scattering events are the norm, as the Faraday threshold is approached, the drop departs the pillar along a path corresponding to a logarithmic spiral. An effective wave force resulting from the pillar is inferred from the spiral, and takes the form of the Coriolis force that would arise in a frame of reference rotating with the instantaneous angular momentum of the drop about the pillar. An electromagnetic analog is explored.

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