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Examination of Brownian vortex dynamics of an aerosol droplet trapped in a horizontal optical tweezers[1] AARON LEMMER, LUKE TITUS, University of Wisconsin - River Falls — The use of optical tweezers in aerosol research greatly facilitates the characterization of the physical properties and dynamics of individual droplets. Using a modified single-beam optical trap to determine the position of a droplet in three-dimensional space, trends in the dynamics of single saline droplets trapped in air have been examined. We consider the possibility that non-conservative optical forces bias the average motion of a given droplet such that it circulates in a toroidal manner.

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