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**Brownian self-propelled particles on a sphere** LEONARDO FELIX
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Universidad Autonoma Metropolitana — We present the dynamics of a Brownian
self-propelled particle at low Reynolds number moving on the surface of a sphere.
The effects of curvature and self-propulsion on the diffusion of the particle are eluci-
dated by determining (numerically) the mean-square displacement of the particle's
angular (azimuthal and polar) coordinates. The results show that the long time
behavior of its angular mean-square displacement is linear in time. We also see that
the slope of the angular MSD is proportional to the propulsion velocity and inverse
to the curvature of the sphere. The angular probability distribution function (PDF)
of the particle is also obtained by numerically solving its respective Smoluchowski
equation.

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