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Sliding on a spinning asteroid (geodesics on a rotating ellipsoid) NATHANIEL MOORE, JOHN F. LINDNER, The College of Wooster — We computationally study the motion of a mass sliding on the surface of a rotating asteroid, with or without gravity, idealized as geodesics on a rotating ellipsoid. We identify qualitatively different families of motion, including chaotic and periodic motions, which generate visually striking patterns. We summarize the effects of gravity and spin on the dynamics.

> John F. Lindner The College of Wooster

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