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Simulation of the Dynamics of a Plane Pendulum with Positional Dependent Torque¹ TODD MCALPINE, Ohio Northern University, ALISON HUFF, The College of Wooster — We investigate the dynamics of a plane pendulum with positional dependent driving torque as would be produced by a horizontally directed force exerted on the pendulum bob. We compare and contrast this with the well known dynamics of a standard plane pendulum. In particular we compare the bifurcation diagrams of the two systems and look at the effects of the drivingamplitude.

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