



Planetary obliquities of the Solar System

W. R. Ward
Southwest Research Institute, Dept. of Space Studies, Suite, United States

Abstract

This talk will review our ideas concerning the origin and evolution of planetary obliquities, i.e. the tilt of a planet's spin axis to its orbit pole. Processes that affect the obliquity include impacts during planet formation, tidal dissipation, atmospheric torques, spin axis precession, orbital variations and spin-orbit resonances. Each planet has a unique history involving how these various mechanisms come into play. I will attempt to outline the main elements of these histories for each planet in the solar system.