



PHYSICS AND ASTRONOMY COLLOQUIUM

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“Cometary Impact Rates at Jupiter and Beyond”

Abstract

Most impact craters on the Moon and terrestrial planets are created by asteroids - bodies whose orbits lie within Jupiter's orbit. Impacts on the giant planets and their satellites, by contrast, are thought to be dominated by "comets" - bodies from the Kuiper Belt/Scattered Disk beyond Neptune. Cometary impact rates are uncertain because small bodies in the Kuiper Belt are still invisible to us, and because comets - unruly by nature - sometimes break up for reasons of their own. I will discuss crater counts on the moons of Jupiter and Saturn by the Galileo and Cassini spacecraft, modeling of the impact flux throughout the history of the Solar System, and predictions of what New Horizons will see when it flies by the Pluto/Charon system next year.

Wednesday, October 22, 2014

3:30 p.m.

Bob Wright Centre

Room A104