

Department of Physics and Astronomy Colloquium



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Date: February 22, 2017

Time: 3:40 p.m. (**Refreshments** in **Rm. 103 @ 3:30 p.m.**)

Place: Rm. 103, Thirkield Hall, Howard University

Host: Dr. Thomas Searles

Planetary Science from a Shoebox

Abstract: Interplanetary SmallSat/CubeSat missions are feasible given recent developments in propulsion, power, and communications infrastructure. Carefully tuned trajectories from translunar and near-Earth deployment will enable missions to comets, asteroids, Mars and Venus. Compact, CubeSat-compatible, UV-Vis-IR remote sensing instruments can address broad planetary science goals. Availability of high quality, commercial instruments reduce mission development complexity and cost. The next decade will likely set the foundations and pathways for planetary science investigations using CubeSats. We will discuss a mission concept to a close approach comet and the science instrument trade space for remote sensing payloads on such missions.