BOSTON UNIVERSITY

SPACE PHYSICS SEMINAR

Mark Gurwell

Harvard–Smithsonian Center for Astrophysics

Taking the Long View - Solar System Astronomy at Millimeter and Submillimeter Wavelengths

Thursday, April 17, 2014
725 Commonwealth Ave.
Refreshments at 3:30pm in CAS 500
Talk begins at 4:00pm in CAS 502

Abstract:

The long-wavelength millimeter and submillimeter spectral regime provides unique information about the wide variety of objects in our solar system, from major planets down to satellites, comets, and KBOs. While the largest bodies can be reasonably well imaged by current mm/submm observatories such as the Submillimeter Array (SMA), smaller bodies can only be observed with relatively coarse spatial resolution. The Atacama Large Millimeter/Submillimeter Array (ALMA) will usher in a new era of ground-based planetary atmospheric exploration at high resolution. The vast sensitivity and detailed imaging provided by ALMA will increase our ability to study many facets of our solar system, from cometary comae/nuclei and the stratosphere of Jupiter down to 100-km class KBOs, volcanoes on Io, and the polar plumes of Enceladus.