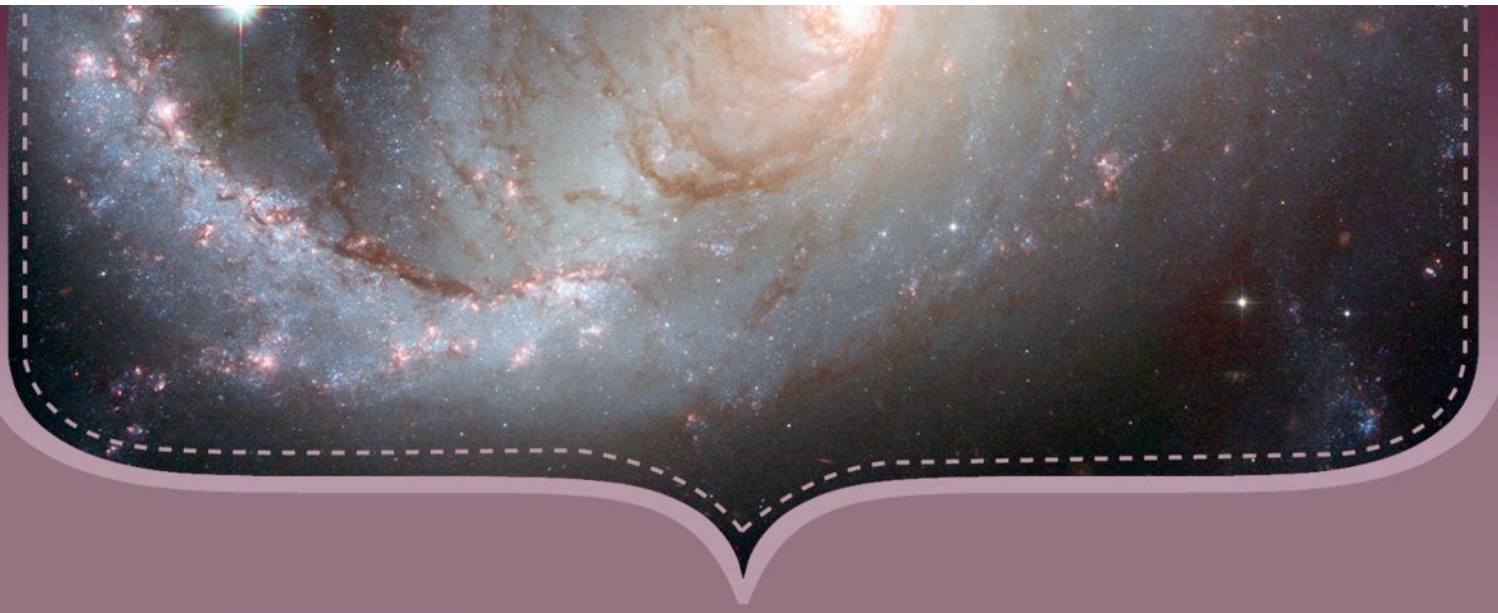

SPRING '08 Colloquia

Refreshments at 3:15 PM, Talks at 3:30 PM in the John N. Bahcall Auditorium

www.stsci.edu/institute/sd/talks/Colloquia for updates

Wednesday April 2, 2008

Hal Weaver, JHU – Applied Physics Laboratory

New Horizons at Jupiter

The New Horizons (NH) spacecraft was launched on 2006 January 19 and is now on an historic decade-long journey to provide the first in situ reconnaissance of the Pluto system and the Kuiper belt. Taking advantage of a fortuitous alignment between Pluto and Jupiter, NH was targeted to within 33 Jovian radii of the solar system's largest planet and received a gravity boost that cut three years off its travel time to Pluto. The close approach to Jupiter also provided a bounty of unique scientific results including: the first detailed view of the Little Red Spot (LRS), the first sightings of Jovian polar lightning, the investigation of planet-wide mesoscale waves and eruptions of fresh ammonia clouds in Jupiter's atmosphere, the best view yet of Io's volcanic plumes and Jupiter's tenuous ring system, and the first ever journey down the tail of Jupiter's gigantic magnetosphere. Concurrent observations of the Jovian system by the Hubble Space Telescope (HST) provided key additional information that contributed to the scientific return from the NH flyby of Jupiter. I will discuss the most important scientific findings from the NH encounter with Jupiter and will provide a status report on the New Horizons mission.