

Service d'Astrophysique
SÉMINAIRE

Vendredi 9 février 11h00

CEA Saclay, Orme des Merisiers Bât 709, p 220

LES GRANDES DECOUVERTES DE CASSINI-HUYGENS
DEUX ANS APRES L'ATTERRISSAGE DE HUYGENS SUR
TITAN ET PLUS DE TRENTE ORBITES AUTOUR DE
SATURNE

Jean-Pierre Lebreton

ESA/ESTEC

The Cassini-Huygens Mission is an international collaboration between Europe and the US. Launched, in 1997, Cassini-Huygens arrived at Saturn after 7 years of cruise that included flybys of Venus (twice), Earth and Jupiter. After 3 years of continuous Saturn's system observations that started in January 2004 when it was approaching the ring world, and more than 2 years after Huygens landing on Titan, our views of the Saturn system has changed in many respects. Titan, once thought to be a frozen early Earth, appears to be as complex as any of the terrestrial planets in the solar system that have an atmosphere; Titan is probably more like the Earth than either Mars or Venus. Once we could see through the high cloud layer at infrared wavelengths, Saturn's atmosphere looked as dynamic as Jupiter's one. Apart from Titan, Saturn's moons are full of surprises. Saturn's rings are showing an incredible dynamical activity through continuous interaction with the moons. Icy moons, with Enceladus' water geysers, Rhea's rich dusty environment, Iapetus equatorial bulge are challenging our understanding of these worlds and of Saturn's formation and evolution. Saturn modulated magnetic and radio period proves to be a major puzzle. The nominal mission ends in mid-2008. The trajectory of the 2-year extended mission was selected last week by the scientists. NASA's decision on the extended is expected soon.

Le séminaire sera fait en Français.

Le café sera servi 10 minutes avant

Contact : chavegrand@dapnia.cea.fr - Tel : 01 69 08 78 27

http://www-dapnia.cea.fr/Phocea/Vie_des_labos/Seminaires/index.php