



## Huygens highlights

Jean-Pierre Lebreton (1,2), Hasso Niemann(\*) and the GCMS Team (3), Guy Israel and the ACP Team (4), Michael Bird and the DWE Team (5), Marcello Fulchignoni and the HASI Team (3), Marty Tomasko and the DISR Team (6), John Zarnecki and the SSP Team (7), Daniel Gautier (2), Jonathan Lunine (8), Tobias Owen (9), François Raulin (10), Darrell Strobel (11), and Dennis Matson (12)

(1) LPC2E (CNRS-Université d'Orléans), Orléans Cedex 2, France (jean-pierre.lebreton@cnrs-orleans.fr), (2) LESIA, Meudon, France, (3) NASA/GSFC, Greenbelt, USA, (4) LATMOS, Guyancourt, France, (5) University of Bonn, Germany, (6) University of Arizona, Tucson, USA, (7) Open University, Milton Keynes, UK, (8) Cornell University, Ithaca, USA, (9) University of Hawaii, USA, (10) LISA, Université Paris-Creteil, France, (11) APL, Johns Hopkins University, Baltimore, USA, (12) JPL, Pasadena, USA

The Huygens Titan probe was carried by Cassini to Saturn and delivered towards Titan on December 25th, 2004. 21 days later, on January 14th 2005, Huygens entered in Titan's atmosphere and descended under parachute for about 2.5 hours. It safely landed and continued to operate on the surface for more than 3 hours. During the descent, and for about 70 minutes from the surface, Huygens transmitted its data stream to the Cassini orbiter for later relay to the Earth. Doppler and VLBI data were also acquired through a network of ground-based radio telescopes that had been set up in support of the mission. An overview of the Huygens mission is provided and a selected set of science results are presented. Key science questions raised by Cassini/Huygens that can be addressed by future in situ exploration of Titan are discussed. The Cassini/Huygens is a joint undertaking between NASA, ESA and ASI. It was launched on 15 October 1997 and placed in orbit around Saturn on 1st July 2004.

(\*) deceased in July 2013