



First results on the dielectric properties of the atmosphere and surface of Titan as measured during the mission of the Huygens probe

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The Permittivity, Waves, and Altimetry (PWA) analyzer is included in the Huygens Atmospheric Structure Instrument (HASI) onboard the Huygens Probe. The mutual impedance sensor, which is included in PWA, has successfully obtained measurements both from the atmosphere and surface of Titan. The atmospheric mode has acquired data that allows the calculation of the conductivity profile during the descent. The

surface mode has measured the mutual impedance of the ground in the vicinity of the landing site. The proper calibration of this data will allow the calculation of both permittivity and conductivity of the medium. The architecture and the calibration procedure of the sensor is explained, and preliminary results are discussed.