



Stream particles observation during the Cassini-Huygens flyby of Jupiter

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On December 30, 2000, the Cassini-Huygens spacecraft flew by Jupiter at a distance of $137 R_J$ (Jupiter radius, 71 400 km). Six months before the closest approach, when the spacecraft was about 1 AU (astronomical unit) away from Jupiter, the Cassini dust detector started to register impacts of fast (~ 200 km/s) and tiny (~ 10 nm) grains, so-called stream particles. In contrast to the dust detection of the Galileo and Ulysses spacecrafts, the Cassini instrument observed a continuous flux of stream particles coming from the Cassini-Jupiter line-of-sight. Based on the CDA data and structure of the interplanetary field, we provide quantitative constraints on the physical properties of Jovian stream particles and explain the differences between the stream particle observations by the Ulysses, Galileo, and Cassini instruments.