

Saturn's dust environment: Experience from a two year survey with CDA

R. Srama (1), S. Kempf (1), G. Moragas-Klostermeyer (1), U. Beckmann (1), F. Postberg (1), R. Srama (1), S. Kempf (1), G. Moragas-Klostermeyer (1), U. Beckmann (1), F. Postberg (1), T. Economou (2), S. Helfert (4), F. Spahn (4), N. Altobelli (3), E. Gruen (1)

(1) MPI Kernphysik, Heidelberg, Germany, (2) Univ. Chicago, USA, (3) JPL, Pasadena, USA, (4) Univ. Potsdam, Germany, (5) Helfert Informatik, Mannheim

The Cosmic Dust Analyzer (CDA) onboard the Cassini mission measures the properties of micron sized dust particles in the environment of Saturn. Since its arrival at Saturn in July 2004, The CDA detector recorded hundreded thouthands of dust impacts within Saturns environment. Flybys at the moon Enceladus embedded in the E ring and the discovery and analysis of dust stream particles were main scientific objectives. Primary charges on particles in the E ring were measured for the first time. In-situ compositional measurements of icy ring particles were performed and Saturns outer faint dust ring is more extended than previously thought. This talk gives an overview about the CDA results at Saturn of the last two years.