



## **CDA in-situ measurements during Cassini's F-ring plane crossings in 2017**

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The Cosmic Dust Analyzer (CDA) onboard Cassini characterized successfully the dust environment at Saturn since 2004. The instrument measures the primary charge, speed, mass and composition of individual submicron and micron sized dust grains. Starting in December 2016 Cassini performed ring plane crossings at radial distances of 2.48 Saturn radii. For the first time, an in-situ dust detector explored this F-ring region of Saturn. CDA performed density, mass and compositional measurements. Furthermore, the High Rate Detector was activated using a high time and spatial resolution. The spatial resolution on January 2nd (2017) was as low as 2000 meters.

Here, we do report preliminary results of the in-situ measurements of three F-ring orbit crossings. The relative encounter speed between Cassini and F-ring particles was approximately 20 km per second.