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Dust measurements of Cassini in the vicinity of Enceladus

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Enceladus is a major source of the micron sized dust particles in Saturn's E ring. The surface of this moon is bombarded by ring particles and the leaving impact ejecta form a dust cloud around the body. The Cassini spacecraft crossed the satellite orbit of Enceladus on Feb. 17 in 2005. During the flyby the Cosmic Dust Analyzer onboard Cassini was operational and performed investigations of the dust environment around Enceladus. Here we report about the observations during this satellite encounter. The Cosmic Dust Analyzer is capable to reliably determine the speed, mass, composition and impact rates of dust grains. This detector is based upon impact ionization and it is operated by the Max Planck Institute Nuclear Physics in Heidelberg.