Properties of the DEEP IMPACT Dust Cloud

L. Jorda(1), **P. Lamy**(1), G. Faury (1), H.U. Keller (2), M. Kueppers (2), S. Hviid (2), D. Koschny (3), J. Lecacheux (4), P. Gutierrez (5) and L. Lara (5)

(1) LAM, Marseille (France), (2) MPS Katlenburg-Lindau (Germany), (3) ESTEC Noordwijk (The Netherlands), (4) Observatoire de Meudon (France), (5) IAA Granada (Spain)

The OSIRIS Narrow Angle Camera aboard ROSETTA observed in the visible the dust cloud created by the DEEP IMPACT impactor during more than 2 weeks. Additional observations were also obtained at Pic du Midi Observatory in the visible before and after the impact. We compare the acquired images with synthetic images resulting from a Monte-Carlo simulation to compute the mass and the kinetic energy of the dust in the cloud. We also derive the size, mass and velocity distributions of the dust particles. Our study is however restricted to submicron particles which can be easily detected on our images.