A portrait of the nucleus of comet 67P/Churyumov-Gerasimenko, the target of the Rosetta mission

P. Lamy (1), I. Toth (2), L. Jorda (1), S. Lowry (3), P. Gutierrez(4), O. Groussin (5) and M. Kaasalainen (6)

(1)Laboratoire d'Astrophysique de Marseille, (2) Konkoly Observatory, (3)Queens University, (4)Instituto de Astrofisica de Andalucia, (5) University of Maryland, (6)University of Helsinki. (Contact philippe.lamy@oamp.fr)

We present a detailed portrait of the nucleus of comet 67P/Churyumov-Gerasimenko based on observations performed with the Hubble Space Telescope, with the Spitzer Space Telescope and with the ESO New Technology Telescope in Chili. In all cases, the observations extended over several hours so that light curves could be secured. Results will encompass the size, shape, albedo and rotational state of the nucleus of 67P, as well as a 3D solution reconstruction of its shape resulting from the inversion of the light curves.