



## **The radiance from the Comet 67P/Churyumow-Gerasimenko in various positions of the measurements during "Rosetta" mission**

**M.I. Blecka** (1), A. Coradini (2), M.T. Capria (3), M.C. De Sanctis (3)

(1) Space Research Center PAS, Warsaw, Poland, (2) IFSI/CNR Via del Fosso del Cavaliere, 00133 Rome, Italy, (3) IASF/CNR Via del Fosso del Cavaliere, 00133 Rome, Italy  
(mib@cbk.waw.pl / Phone: +48 22 8403766)

This work is connected with present mission ("Rosetta") to the Comet 67P/Churyumow-Gerasimenko. The VIRTIS instrument will monitor the nucleus and the coma in order to provide a general picture of coma's and nucleus composition. During the mission the conditions of the spectroscopic investigation will change due to changes of the distance of the comet from the Sun. The surface of the nucleus and the fluxes of emitted gases and dust will undergo to some modifications at each point of the orbit.

We show the examples of simulation of the comet radiance at different distances from the Sun. Nucleus radiance has been simulated taking into account the structure of the surface as well as of the coma. The optical parameters of the dust on the surface (e.g. reflectance) and in the coma (e.g.  $Q_{ext}$ ) were calculated or recently published laboratory measurements were used. We used the thermodynamical parameters of the comet calculated from the model or taken from the published observations.