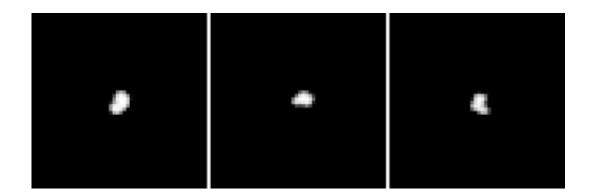


## New images of comet 67P/Churyumov-Gerasimenko reveal an irregular shape

July 11 2014



Sequence of three resolved images of the nucleus of comet 67P/Churyumov-Gerasimenko separated by approximately four hours. The images were obtained by the OSIRIS narrow angle camera (NAC) on July 4th, 2014 from a distance of approximately 37000 kilometers. Credit: ESA/Rosetta/MPS for OSIRIS Team/MPS/UPD/LAM/IAA/SSO/INTA/UPM/DASP/IDA

The nucleus of comet 67P/Churyumov-Gerasimenko is an irregularly shaped body as seen from ESA's spacecraft Rosetta. New images of the comet obtained by OSIRIS, the onboard scientific imaging system, reveal a unique shape. The tiny world that is quickly growing bigger as Rosetta approaches its destination seems to display three prominent structures.

"From what we can discern in these early images, 67P is an irregularly looking body", says OSIRIS Principal Investigator Holger Sierks from



the Max Planck Institute for Solar System Research (MPS) in Germany. The current images were taken on July 4th, 2014 from a distance of approximately 37000 kilometers. Even though the body covers only about 30 pixels, the images suggest what looks like three large structures or a deep depression.

Irregular, elongated, and structured shapes are not uncommon for small bodies such as asteroids and comets. Of the five cometary nuclei that have been visited by spacecraft in close flybys so far, all are far from spherical. Comet 103P/Hartley, for example, is a long-stretched body resembling a juggling club. "Seeing 67P now slowly revealing its own unique features is an unprecedented adventure", says OSIRIS scientist Jean-Baptiste Vincent from the MPS.

Rosetta is an ESA mission with contributions from its member states and NASA. Rosetta's Philae lander is provided by a consortium led by DLR, MPS, CNES and ASI. Rosetta will be the first mission in history to rendezvous with a <u>comet</u>, escort it as it orbits the Sun, and deploy a lander to its surface.

## Provided by Max Planck Society

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