Geophysical Research Abstracts Vol. 20, EGU2018-1849, 2018 EGU General Assembly 2018 © Author(s) 2017. CC Attribution 4.0 license.



A tail like no other (RPC-MAG's view of Rosetta's tail excursion at comet 67P/CG)

Martin Volwerk (1), Charlotte Goetz (2), Ingo Richter (2), Magda Delva (1), Katharina Ostaszewski (2), Konrad Schwingenschuh (1), and Karl-Heinz Glassmeier (2)

(1) Space Research Instute, Austrian Academy of Sciences, Graz, Austria (martin.volwerk@oeaw.ac.at), (2) Institute for Geophysics and Extraterrestrial Physics, Technische Universität Braunschweig, Germany

The Rosetta Plasma Consortium Magnetometer data are used to study the large scale structure of the cometary tail during the tail excursion in March – April 2016. With the comet at \sim 2.7 AU from the Sun, its outgassing rate is low, which results in a "non-classical" draping of the magnetic field. In the near-tail region, < 600 km from the nucleus, the magnetic field is directed across the tail instead of along the tail. Further away from the comet, the orbit of the tail excursion does not show evidence of a bi-lobal magnetotail, with the magnetic field mainly pointing sunward. Also a helical wave travelling down the tail is observed, which origin is unclear.