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Two-Point observations of low-frequency waves at 67P/C-G by ROMAP and RPC-MAG

Philip Heinisch (1), Hans-Ulrich Auster (1), Ingo Richter (1), Gerhard Haerendel (2), Charlotte Götz (1), Istvan Apathy (3), Gerhard Berghofer (4), Karl-Heinz Fornacon (1), Karl-Heinz Glassmeier (1,5)

(1) Institut für Geophysik und extraterrestrische Physik, TU Braunschweig, Braunschweig, Germany (p.heinisch@tu-bs.de), (2) Max Planck Institute for extraterrestrial Physics, Garching, Germany, (3) Centre for Energy Research, Hungarian Academy of Sciences, Budapest, Hungary, (4) Space Research Institute, Austrian Academy of Sciences, Graz, Austria, (5) Max-Planck-Institut für Sonnensystemforschung, Göttingen, Germany

During PHILAE's First Science Sequence (FSS) the onboard ROMAP magnetometer and the RPC-MAG magnetometer of the ROSETTA orbiter were operating simultaneously for about 14h. These measurements provided the unique possibility to analyze the spatial and temporal evolution of waves in the magnetic field of the comet boundary region. An initial analysis revealed, that neither the amplitude nor the direction of these waves depend on the day-night cycle at the landing site, but rather on the outgassing of the nucleus. Based on a minimum-variance analyses two different types of waves could be identified. These mostly compressible waves have a propagation direction from the comet tail to the front with a velocity between 2km/s and 10km/s.