

# Jürgen Oberst

## 1) General information

- Oberst, Jürgen, Ph.D, date of birth: 15/07/1955, male
- Institut für Geodäsie und Geoinformationstechnik, Technische Universität Berlin, Straße des 17. Juni 135, D-10623 Berlin, Tel.: +49 30 31479701, e-mail: juergen.oberst@tu-berlin.de.
- Current position: Professor (S-Professor)

## 2) Academic education and degrees

- Geophysics (1976 – 1981), Westfälische Wilhelms-Universität Münster, Diploma (Prof. Dr. Franz Thyssen)

## 3) Scientific degrees

- Doctoral degree: Ph.D., The University of Texas at Austin, USA, 1989 (Prof. Dr. Yosio Nakamura)

## 4) Professional experience

- 2011 - 2012, Visiting Scientist, MIIGAiK (Moscow State University for Geodesy and Cartography) supported by a "MegaGrant" from the Ministry of Education and Science of the Russian Federation.
- Since 2007, S-Professor at Technical University Berlin (Joint with Position of DLR Department Chief)
- Since 2007, German Aerospace Center (DLR), Chief, Planetary Geodesy Department
- 2001, Visiting Scientist, ISAS, Tokyo supported by the DLR Sabbatical program
- 1992 - 2007, German Aerospace Center (DLR), Deputy Chief, Planetary Geology Department
- 1989 - 1992, German Aerospace Center (DLR), Staff Scientist

## 5) Professional activities

- Co-Investigator, HRSC (High Resolution Stereo Camera) on Mars Express
- Participating Scientist in the MESSENGER Team,
- Participating Scientist in LRO (Lunar Reconnaissance Orbiter) Laser Altimeter and Camera Teams
- Science Coordinator for BELA and GALA Laser Altimeter Teams on ESA missions BepiColombo and JUICE
- 2012 – 2014 (extended through 2017) WP Leader, DFG Research Group „Space-Time Reference Systems for Global Change and Precision Navigation“
- WP Leader of several previous (Europlanet, ProVis-G) or ongoing (ProVIDE, ESPACE) EU-funded projects.
- 2011 – 2014, Leader, Helmholtz-Russia Joint Research Group (HRJRG) on „Phobos and Deimos“
- Since 2014, Leading Scientist for the MIIGAiK Extraterrestrial Laboratory (MExLab), Moscow, Russia, under the "1000-Laboratories Program" by the Russian Science Foundation
- 2010-2012, Working Group Chair "Phobos and Deimos" ; Convenor of several workshops at ISSI
- Chairman of ISPRS (International Society for Photogrammetry and Remote Sensing) Working Group IV/8
- Member of the International Lunar- and Mars Geodesy and Cartography Working Groups
- Guest Editor, Planetary and Space Science: Phobos Special Issue (2013)
- Since 2015: Member of Editorial Board, Geodesy, Aerophotogrammetry, and Cartography
- 2011 and 2015, Coordinator of mission proposals in ESA's Cosmic Vision Program.

## 6) Publications

*Published or accepted peer-reviewed publications, book chapters, etc.*

Oberst, J., K. Gwinner, and F. Preusker, Exploration and Analysis of Planetary Shape and Topography Using Stereophotogrammetry. In: T. Spohn, D. Breuer, and T. V. Johnson (Eds.), Ency.of the Solar System, Elsevier , 2014.

Oberst, J., A. Zubarev, I. Nadezhdina, L. Shishkina, and N. Rambaux, The Phobos geodetic control point network and rotation model, Planetary and Space Science, Vol. 102, 45-50, 2014.

Karachevtseva, I., J. Oberst, F. Scholten, A. Konopikhin, K. Shingareva, E. Cherepanova, E. Gusakova, I. Haase, O. Peters, J. Plescia, M. Robinson, Cartography of the Lunokhod-1 landing site and traverse from LRO image and stereo-topographic data, Planetary and Space Science, Vol. 85, 175-187, 2013.

Haase, I., J. Oberst, F. Scholten, M. Wählisch, P. Gläser, I. Karachevtseva, M.S. Robinson, Mapping the

- Apollo 17 landing site area based on Lunar Reconnaissance Orbiter Camera images and Apollo surface photography, *J. Geophys. Res.*, Vol. 117, CiteID E00H20, 2012.
- Oberst, J. and 11 colleagues. The present-day flux of large meteoroids on the lunar surface – A synthesis of models and observational techniques. *Planet. Space Sci.* 74 (1), 179-193, DOI: 10.1016/j.pss.2012.10.005, 2012.
- Oberst, J. and 27 colleagues, GETEMME - a mission to explore the Martian satellites and the fundamentals of solar system physics. *Experimental Astronomy* 34 (2), 243-271, ISSN 0922-6435, 2012.
- Scholten, F. J. Oberst, K.D. Matz, T. Roatsch, M. Wählisch, E.J. Speyerer, M.S. Robinson, GLD100: The near-global lunar 100 m raster DTM from LROC WAC stereo image data, *J. Geophys. Res.*, Vol.117, CiteID E00H17, 2012.
- Oberst, J., F. Preusker, R.G. Phillips, T.R. Watters, J.W. Head, M.T. Zuber, and S.C. Solomon, The morphology of Mercury's Caloris basin as seen in MESSENGER stereo topographic models, *Icarus*, Vol. 209, Issue 1, 230-238, 2010.
- Willner, K., J. Oberst, H. Hussmann, B. Giese, H. Hoffmann, K.D. Matz, T. Roatsch, T. Duxbury, Phobos control point network, rotation, and shape, *Earth Planet. Sc. Lett.*, Vo. 294, Issue 3-4, p. 541-546, 2010.