

Pail, Roland, Prof. Dr. techn., Mag. rer. nat.

Date of birth 29.06.1972, male
Actual position Professor W3 / Chair of Astronomical and Physical Geodesy
Affiliation Department of Civil, Geo and Environmental Engineering
Technical University of Munich
Arcisstr. 21, 80333 Munich

Phone; mail +49 (0)89 289 23199; roland.pail@tum.de
Homepage <http://www.iapg.bgu.tum.de/>



Career and education

2017- Technical University of Munich, Vice-Dean of Department of Civil, Geo and Environmental Engineering
2014-2016 Technical University of Munich, Dean of Department of Civil, Geo and Environmental Engineering
2010- Technical University of **Munich**, Professor W3, Chair of Astronomical and Physical Geodesy
2002-2009 Graz University of Technology, Institute of Navigation and Satellite Geodesy, University Docent
2002 Habilitation in „Theoretical Geodesy“, Graz University of Technology
1999 Promotion „sub auspiciis praesidentis“, Dissertation: „Synthetic Global Gravity Model for Planetary Bodies and Applications in Satellite Geodesy“, Graz University of Technology
1997-2002 **Graz** University of Technology, Institute of Navigation and Satellite Geodesy, University Associate
1996-1997 University of **Bayreuth**, Institute of Physics, Research Associate: DFG project „Continental Deep Drilling Project of the Federal Republic of Germany“
1991-1995 University of Vienna, Geophysics, Degree: Master of Science
1994 University of **Vienna**, Astronomy, 1. Diploma

Honours, Awards & Fellowships

- President of Commission 2 “Gravity Field” of the International Association of Geodesy (2015-2019)
- Dean (2014-2016), Department of Civil, Geo and Environmental Engineering
- Vice Dean (2013-2014, 2016-), Department of Civil, Geo and Environmental Engineering
- Fellow of International Association of Geodesy, 2011
- Chair/Co-Chair of GGOS Working Group for Satellite Missions (2008-)
- Young Authors Award 2005 of the International Association of Geodesy
- Allmer-Löschner-Award 2002 of the Austrian Geodetic Commission
- Josef-Krainer Promotion Award 2000
- Promotion „sub auspiciis praesidentis“, 1999
- Appreciation Award 1999 of the Federal Ministry of Science and Transport (Ph.D. Study)
- Appreciation Award 1996 of the Federal Ministry of Science, Transport and Art (Master Study)
- Member of German Geodetic Commission (DGK)
- Board Member of Research Group Satellite Geodesy (FGS, Geodetic Observatory Wettzell)
- Board Member of the Austrian Geophysical Society (AGS)

Most important publications (shortlist 10)

(ca. 50 ISI publications, h-index 13)

Götze H., **Pail R.** (2017): Insights from recent gravity satellite missions in the density structure of continental margins – With focus on the passive margins of the South Atlantic. *Gondwana Research*, Elsevier, doi: 10.1016/j.gr.2017.04.015, 2017.

- Ihde J., Sánchez L., Barzaghi R., Drewes H., Förste C., Gruber Th., Liebsch G., Marti U., **Pail R.**, Sideris, M. (2017): Definition and Proposed Realization of the International Height Reference System (IHRs). *Surveys in Geophysics*, Vol. 38, Nr. 3, pp 549-570, Springer, doi: 10.1007/s10712-017-9409-3, 2017.
- Fecher T., **Pail R.**, Gruber Th. (2017): GOCO, Consortium: GOCO05c: A New Combined Gravity Field Model Based on Full Normal Equations and Regionally Varying Weighting. *Surveys in Geophysics*, Vol. 38, Nr. 3, pp 571–590, Springer, doi: 10.1007/s10712-016-9406-y, 2017.
- Pail R.**, Bingham R., Braitenberg C., Dobslaw H., Eicker A., Güntner A., Horwath M., Ivins E., Longuevergne L., Panet I., Wouters B. (2015): Science and User Needs for Observing Global Mass Transport to Understand Global Change and to Benefit Society; *Surveys in Geophysics*, Vol. 36(6): 743-772, Springer Netherlands, doi: 10.1007/s10712-015-9348-9.
- Hosse M., **Pail R.**, Horwath M., Holzrichter N., Gutknecht B.D. (2014): Combined regional gravity model of the Andean convergent subduction zone and its application to lithospheric modelling in active plate margins. *Surveys in Geophysics*, Vol. 2014, Nr. 6, 1393-1415, Springer, doi: 10.1007/s10712-014-9307-x.
- Murböck M., **Pail R.**, Daras I., Gruber T. (2013). Optimal orbits for temporal gravity recovery regarding temporal aliasing. *Journal of Geodesy*, Springer Berlin Heidelberg, ISSN 0949-7714, ISSN (Online) 1432-1394, doi: 10.1007/s00190-013-0671-y.
- Pail R.**, Bruinsma S., Migliaccio F., Förste C., Goiginger H., Schuh W.-D., Höck E., Reguzzoni M., Brockmann J.M., Abrikosov O., Veicherts M., Fecher T., Mayrhofer R., Krasbutter I., Sansó F., Tscherning C.C. (2011). First GOCE gravity field models derived by three different approaches. *J. Geod.*, Vol. 85:11, 819-843, doi: 10.1007/s00190-011-0467-x.
- Bingham R. J., Knudsen P., Andersen O., **Pail R.** (2011): An initial estimate of the North Atlantic steady-state geostrophic circulation from GOCE; *Geophysical Research Letters*, Vol. 38, EID L01606, American Geophysical Union, ISSN 0094-8276, doi: 10.1029/2010GL045633.
- Pail R.**, Goiginger H., Schuh W.-D., Höck E., Brockmann J.M., Fecher T., Gruber T., Mayer-Gürr T., Kusche J., Jäggi A., Rieser D. (2010). Combined satellite gravity field model GOCO01S derived from GOCE and GRACE. *Geophysical Research Letters*, Vol. 37, EID L20314, doi: 10.1029/2010GL044906.
- Pail R.** (2005). A parametric study on the impact of satellite attitude errors on GOCE gravity field recovery. *J. Geod.*, 79:4-5, 231-241, doi: 10.1007/s00190

Research Interests & Teaching

Physical Geodesy, satellite geodesy, global and regional gravity field modelling, terrestrial gravimetry, statistical and inverse methods, integrated modelling and data combination, mass transport processes

Recent and ongoing projects (selection)

Third-party funds: ~500 kEuro/year

- GOCE High-Level Processing Facility: GOCE gravity field modelling using the time-wise approach (2004 –)
- Gravity observation combination (GOCO): combined global gravity field modelling (2009 –)
- German Geotechnology Program: GOCE real data processing (2010–2012)
- DFG Priority Program 1257: Integrated Modelling of Satellite and Airborne Gravity data of Active plate margins (2011–2013)
- Helmholtz-Allianz DLR@Uni: High-resolution geodetic Earth observation (2012–2016)
- ESA: Assessment of Satellite Constellations for Monitoring the Variations in Earth's Gravity Field (2013–2015)
- DLR: Next Generation Gravity Field – Germany (2013–2014)
- DFG: Priority Program „SAMPLE: South Atlantic Margin Processes and Links with Onshore Evolution (2013–2015)
- DFG: Zweiwege-Satellitenverfolgung als Basis für Schwerefeldmissionsszenarien – eine Simulationsstudie mit ausführlicher Fehleranalyse (2014–2016)