

Name: Hans-Georg Scherneck

CV status 2015-05-03

1. **University exam:** Physics and geophysics 1977.
2. **PhD exam:** 1986 in Geodesy. Tidal Gravimetry. Superv.: A.J. Anderson.
3. **Post-doc visits:** 1988 + 1989: Geodätisches Inst., Univ. Bonn, Tyskland
1998, 99 + 2000: Harvard-Smithsonian CfA, Cambridge, Mass.
4. **Docent degree:** 2001
5. **Current employment:** Lektor, 2003--, 20% forskning
6. **Previous employments:** 1983-87 Forskningsassistent (NFR)
1987-91 Forskarassistent i Geodynamik (NFR)
1991-93 Forskare med projektmedel (NFR).
1993-02 Forskare / projektledare / lektor (50% NFR), 50% undervisning (Chalmers)
7. -
8. **Main supervisor, examined PhD's :** Sten Bergstrand, 2006
Per-Anders Olsson, 2013

Research contracts

As the main applicant

- 1983-86 Geodynamics and tidal gravimetry (NFR G/GU-4770)
- 1986-90 Geodynamics and researcher assistant position (NFR G/GU-4770)
- 1991-93 Geodynamics and researcher position (NFR G/GU-4770)
- 1994 Space Geodesy research report for Swedish Nuclear Fuel Management (SKB)
- 1993-98 Postglacial geodynamics (NFR ..)
- 2000 Borehole tides (SKB)
- 2001-03 Contemporary deformations (VR 20006292)
- 2006 Supraledande Gravimeter (VR/KFI 60584301)
- 2009 Postglacial Fault Zone (SNSB Dnr 112/09:1)

As a co-applicant

- 1984-87 Arctic Geodynamics, Gravity field and satellite altimetry (Swedish Space Board; A. J. Anderson, G. Marquart).
- 1987-93 FenNTec – ongoing tectonics with GPS (NFR; C. Talbot, G. Marquart)
- 1993-99 Space geodetic reasearch (NFR, Rönnäng, Elgered)
- 1993-99 European VLBI for geodesy and astrometry (EU-TMR)
- 2000-- Postglacial rebound (NERC (U.K.) G.A. Milne)
- 2002--04 EGNOS RIMS (ESA, H.-P. Plag, J.M. Johansson)
- 2006--08 “GEO6” Scientific Research GNSS Special UC (GALILEO Joint Undertaking; J.M. Johansson).

Supervision of Bachelor Thesis

- 2014 Undersökning av havsvågors korrelation till mikroseismikens effektspektrum genom artificiella neurala nätverk (E. Hellsten, E. Jorge, M. Polleryd, D. Svensson)

Supervision of Master students

2006-2007 Sodalemu Kolawole (MSc April 2007)

Supervision of PhD Students

Main supervisor

2007--13 Per-Anders Olsson (Industrial PhD-student, National Land Survey Gävle). Lic.: 2011.

Assistant supervisor

2002--07 Martin Lidberg (Licensiate 2005, PhD Nov. 2007)

2006--07 Surat Pramualsardikul (Lic. 2007)

2008-- Susana Garcia Espada

2009--14 Johan Löfgren

Additional merits

Memberships and Working groups

Council of Europe Study group on Geodynamics.

IAG Commission V, Earth Tides. SSG 5.99.

IAG National Committee Sweden.

American Geophysical Union; European Geophysical Society; IEEE.

Corresponding Member to IERS Directing Board.

International Lithosphere Project committee for Sweden.

1999--2007 Chairman of Working Group for Geodynamics, Nordic Geodetic Commission

2000--02 Directing Board member of WEGENER project.

2002-- Nordic Geodetic Commission: Task Force on Nordic Geodetic Observing System

2008-- Directing board member International Lithosphere Project ILP CC-1/5 "DynaQlim"

2008--12 COST ES0701 National Representative for Sweden

2007-- Swedish Deep Drilling Project member.

2010-- EPOS Europ. Plate Observing System, Research Infrastructure project, member.

2012 "Excellence in Review" American Geophysical Union, Geophys. Res. Lett.

2013-- Member Chalmers Faculty advisory board

Conferences

Convener at EGS and AGU international symposia

Invited presentations (ca. 6) at international symposia (EGS, AGU, IVS)

Doctoral defence examiner (ca. 8) and second opponent (1)

Reviewer for international journals (Journal of Geodynamics, Journal of Geodesy, Geophys. Res. Letters) and funding agencies (UK, NL, ČR).

Post-doc collaborators in research group ... in no particular order.

At Chalmers/Space geodesy: Bernt Rönnäng 1993-1995, Gunnar Elgered, 1993—, Jan Johansson, 1993—, Rüdiger Haas, 1998—

Humboldt University Berlin: Christian Freier, Matthias Haut, 2015--

Harvard-Smithsonian Center for Astrophysics: James L. Davis.

Univ. of Toronto: Jerry Mitrovica

Univ. of Liverpool / TU Delft / University of Porto: Machiel Bos, 2001—

Univ. of Durham: Glenn A. Milne 1998—

GfZ Potsdam: Detlef Wolf (1996), Zdenek Martinec (2001)

IRPI/CNR (Italy): Matteo Mantovani, scholarship application pending Sep. 2007—

MIT, Cambridge, Mass.: Robert W. King, 2006

FGI Finland: Markku Poutanen, Jaakko Mäkinen 1993—, Hannu Koivula, 1995—, Mirjam Bilker, 2000—

JPL Pasadena, California: "Frank" X. Wu, 2001-2002; Frank H. Webb 1998-2000

Physics Dep., Stanford: Achim Peters 1998-1999

ECGS Luxemburg: Tonie van Dam 2002

Danish Space Center: Shfakat Abbas Khan, 2000-2004

Leibniz Universität Hannover: Olga Gitlein, Ludger Timmen, 2009--

Jens Ove Näslund, Stockholms univ., 2000-2004

Uppsala University: Chris Juhlin, Björn Lund. 2007--

Pedagogic Education

- 1992 Staff expertise development "Teaching training for researchers at Uppsala University".
- 1999 Staff expertise development "PhD student supervision for researchers" at Chalmers.
- 2002 "Pedagogy for Chalmers teachers"
- 2010 Chalmers Handledarforum

Outreach

- 2010 Sveriges Radio *Vetenskapens Värld* 2010-01-27 12:10-12:30 (Magnus Hagström, red.)
- 2013 Popular science book: Elgered, Gunnar; Haas, Rüdiger; Johansson, Jan M.; Scherneck, Hans-Georg; Jongman, R.; Wickert, J.; Mantovani, M. GNSS for global environmental Earth observation
- 2014 Sveriges Radio *P3 Institutet*, 2014-02-22 & 2014-03-01 (Jesper Rönndahl, red.)
- 2015 Vetenskapsfestivalen Göteborg, föredrag vid Onsala rymdobservatorium 2015-04-17.

Selected Publications (Links to publisher's archive; PP=parallel publ. at Chalmers CPL, OA=OpenAccess)

- Bergstrand, S., H.-G. Scherneck, G.A. Milne, and J.M. Johansson, Upper mantle viscosity from continuous GPS baselines in Fennoscandia. *J. Geodynamics*, 39, 91-109, 2005. [Link](#) | [PP](#)
- Johansson JM, Davis JL, Scherneck HG, et al., Continuous GPS measurements of postglacial adjustment in Fennoscandia - 1. Geodetic results. *J. Geophys. Res.*, 107:B8 Article Number: 2157, 2002. [Link](#) | [PP](#)
- Mantovani, M., Scherneck, H.-G., DInSAR investigation in the Pärvie endglacial fault region, Lapland, Sweden, *Int. J. Remote Sensing*, 34, 8491-8502, 2013. [Link](#)
- Milne GA, Davis JL, Mitrovica JX, Scherneck HG, Johansson JM, Vermeer M, Koivula H. Space-geodetic constraints on glacial isostatic adjustment in Fennoscandia, *Science*, 291:5512, 2381-2385, 2001. [Link](#)
- Milne, G. A., J. X. Mitrovica, H.-G. Scherneck, J. L. Davis, J. M. Johansson, H. Koivula, and M. Vermeer (2004), Continuous GPS measurements of postglacial adjustment in Fennoscandia: 2. Modeling results, *J. Geophys. Res.*, 109, B02412, doi:10.1029/2003JB002619, 2004. [Link](#)
- Olsson, P.-A., Ågren, J., Scherneck, H.-G., Modelling of the GIA-induced surface gravity change over Fennoscandia. *J. Geodynamics*, 61, 12-22, 2012. [Link](#) | [PP](#)
- Olsson, P.-A., Scherneck, H.-G., Ågren, J., Effects on gravity from non-tidal sea level variations in the Baltic Sea. *J. Geodynamics*, 48, 151-156, 2009. [Link](#)
- Olsson, P.-A., Milne, G.A., Scherneck, H.-G., Ågren, J. The relation between gravity rate of change and vertical displacement in previously glaciated areas, *J. Geodynamics*, 83, 76-84, 2015. [Link](#)
- Penna, N.T., Bos, M.S., Baker, T.F. and Scherneck, H.-G., Assessing the accuracy of predicted ocean tide loading displacement values, *J. Geodesy*, 82, 893-907, 2008. [Link](#) | [PP](#)
- Scherneck H-G. A parametrized solid earth tide model and ocean tide loading effects for global geodetic base-line measurements, *Geophys. J. Int.*, 106, 677-694, 1991. [Link](#)
- Scherneck H-G, Lidberg M, Haas R, Johansson JM, Milne GA, Fennoscandian strain rates from BIFROST GPS: A gravitating, thick-plate approach. *Journal of Geodynamics*, 50:1, 19-26, doi:10.1016/j.jog.2009.11.005, 2010. [Link](#) | [PP](#)
- Timmen, L., Engfeldt A., Scherneck, H.-G.. Observed secular gravity trend at Onsala station with the FG5 gravimeter from Hannover. *J. Geodetic Sc.*, 5, 1-8, 2015. [Link](#) | [OA](#)

Peer-reviewed regular:	32
Peer-reviewed conference:	4
Book chapter:	2
Patents:	0
Generally available	
computer programs:	0 (2 utilities),
a widely-used computing service (4215 users to this date)	
Popular science, articles:	1
public presentations:	4 (besides uncounted open-house events)
Pub. in open-access journals:	1