

Curriculum Vitae

Martin Vermeer

1 Personal:

Martin Vermeer, Born January 27, 1953 in Hardinxveld, The Netherlands.

2 Studies:

- M.Sc. in Eng. 1981, Delft University of Technology (DUT), Geodetic engineering.
- Ph.D. Jan. 11, 1985, University of Helsinki (HY), geodesy, dissertation “Geoid Studies on Finland and the Baltic”
- YOOP (“Program on Higher Education Pedagogy”), 15 study weeks, completed at Helsinki University of Technology (HUT) Jan. 5, 2004.

3 Docentships:

- Geodesy. Helsinki University, Geophysics Department, 1994

4 Positions held:

- 1981-1992 Researcher, Finnish Geodetic Institute (FGI) 1981-1992 researcher.
- 1988-1992 Researcher, Danish National Survey and Cadastre (KMS) in an arrangement with FGI.
- 1992-2000 Head of FGI Department of Geodesy (Professor).
- 1993 (seven weeks) visiting professor of Space Geodesy, Delft U. of Tech.
- From 2000 Professor of Geodesy, Helsinki U. of Tech.

5 Supervised doctoral dissertations:

- Markku Poutanen: *Sea surface topography and vertical datums using space geodetic techniques*. HY 2001.

6 Doctoral dissertation pre-reviewer:

- Wang Zhitong: *Geoid and Crustal Structure in Fennoscandia*. HY 1998.
- Matti Ollikainen: *Determination of Orthometric Heights Using GPS Levelling*, HY 1997.
- Mikko Takalo: *Automated Calibration of Precise Levelling Rods in Finland*, HUT 2000.
- Andres Rüdja: *Geodetic datums, reference systems and geodetic networks in Estonia*. HY 2004.
- Heikki Virtanen, *Studies of Earth Dynamics with the Superconducting Gravimeter*, HY 2007.
- Maaria Nordman, *Improving GPS Time Series for Geodynamic Studies*, HY 2009.

7 Licentiate dissertation pre-reviewer:

- Jaakko Mäkinen: *Maankuoren vertikaaliliikkeiden mallintaminen ja vaikutus korkeusjärjestelmiin*. HY 1993.
- Jaana Järvinen: *Utilisation of GPS Satellite Measurement Methods in Data Acquisition for GIS Applications*. HUT 2001.

8 Expert tasks:

- Reviewer for academic positions:
 - Professor II space geodesy, Norwegian Agricultural Univ., Ås 1997.
 - Lecturer in Civil Eng. Technion, Israel 1998 (Lecturer = lower level assistant prof., non tenured position).
 - “Försteamanuens”, surveying, Institute for Mapping Science, Norwegian Agricultural Univ., Ås 1999.
 - Evaluating the scientific works of Dr. Gamal Seleem in 2003, and those of Dr. K.H. Zahran in 2006, both for the National Research Institute of Astronomy and Geophysics, Helwan (Egypt).
 - Docentship of Dr. Markku Poutanen, HY 2002.
 - Professor / Assoc. prof / Assistant prof. / Lecturer in Geodesy, Cyprus U. of Technology, 2010.
- Wrote the *Review of the GPS deformation monitoring studies, commissioned by Posiva Oy on the Olkiluoto, Kivetty and Romuvaara sites, 1994-2000* for the Finnish Radiation and Nuclear Safety Authority, in 2002.
- Participated in review of Estonian research and development institutions in geodesy for the Estonian Higher Education Accreditation Centre, November 5-10, 2002.
- Participated in review of Estonian curricula in Land Surveying, Land Management and Geodesy for the Estonian Higher Education Accreditation Centre, February 12-18, 2007.

9 Doctoral opponentships:

- Peter Nsombo: *Geoid Determination Over Zambia*. Swedish Royal Institute of Technology (KTH), June 1996.
- Kjell Almgren: *A new method for GPS ambiguity resolution on-the-fly at short baselines*. KTH Feb. 1998.
- Abd. Majid A. Kadir: *Gravity field mapping over the Southeast Asian region using spaceborne gravimetry techniques*. HY 1991.
- Ove Christian Dahl Omang: *The Challenge of Precise Geoid Determination – Applied to Norwegian Extremities: Glaciers, Fjords and Mountains*. Norwegian Agricultural University (NLH), Ås, Norway 2001 (one of two opponents).
- Artu Ellmann: *The geoid for the Baltic countries determined by the least squares modification of Stokes’ formula*, KTH May 2004.
- Ramin Kiamehr: *Precise Gravimetric Geoid Model for Iran Based on GRACE and SRTM data and the Least-Squares Modification of Stokes’ Formula with Some Geodynamic Interpretations*, KTH Oct. 2006.
- Pasi Pertilä: *Acoustic Source Localization in a Room Environment and at Moderate Distances*, Tampere University of Technology (TUT) Jan. 2009.

- Tuomo Pirinen: *Confidence Scoring of Time Delay Based Direction of Arrival Estimates and a Generalization to Difference Quantities*, Tampere University of Technology (TUT) Dec. 2009.
- Kristian Breili: *Investigations of surface loads of the Earth – geometrical deformations and gravity changes*. Norwegian University of Life Sciences (UMB), Ås, Norway 2010 (one of three opponents).

10 Important trusted offices:

- 1999: Chair, Finnish Geophysical Society.
- 1999: Chair, Finnish Society for the Surveying Sciences.
- 2000-... Member, National Committee for Geodesy and Geophysics.
- 2000-... Member, National COSPAR committee.
- 1999: Member, Committee for the Modernization of the Finnish Co-ordinate Systems.
- 2004-2005 Member, Committee for the Modernization of the Finnish Height System.
- 1998-2006 Member of the Nordic Geodetic Commission's Presidium.
- 1995-2003 Member, Editorial Board, Journal of Geodesy.
- 1995-1999 book review editor for Europe, Journal of Geodesy.
- 1990-1999 President, International Association of Geodesy (IAG) Subcomm. for the Geoid in Europe.
- 1990-1999 National representative for Finland, IAG Comm. XII (Int. Geoid Commission).
- 1999-2003 President, IAG International Gravity and Geoid Comm.
- 2003-2011 President, IAG Subcomm. 2.2: Spatial-Temporal Structure of the Gravity Field.
- 2000-2002 and 2002-2004 Member, American Geophysical Union's Information Technology committee.
- 2003-2004 Member, Editorial Board, Nordic Journal of Surveying and Real Estate Research.
- 2004-... Editor-in-Chief, Nordic Journal of Surveying and Real Estate Research.
- 2005-2007 Member, Board, URSA Amateur Astronomical Society; 2006-2007 Vice-Chairman.
- 2008-2009 Co-ordinator for TKK Department of Surveying of Research Assessment Exercise
- 2005-2011 Chair, Honkatie 1 Housing Corporation (a dozen households).
- 2010 Aalto University Teaching Evaluation Exercise (TEE) contact person for the Geomatics Degree Programme.

11 Important foreign visits:

- 1988-1992 Researcher, Danish National Survey and Cadastre (KMS) in an arrangement with Finnish Geodetic Institute
- 1993 (seven weeks) visiting professor of Space Geodesy, Delft University of Technology, The Netherlands

12 Important honours and prizes:

- From 1994 foreign member, Finnish Academy of Sciences and Letters.
- 2008: Golden Badge of Merit from the Finnish National Land Survey, for valuable activities to the benefit of the profession.

13 Other:

Interviewed by Päivi Repo of Helsingin Sanomat on the finding of the BIFROST project (G.A. Milne et al., 2001) that the postglacial rebound includes a horizontal component, and that thus Finland and Sweden move apart. Appeared March 31, 2001 on page C15.

Interviewed in February 2003 by Annvi Gardberg of Radio Vega's (YLE's Swedish-language branch) "Inblick" programme on the theme "Is Big Brother Watching?", about the ability to position cell phones by GPS (air time 10 minutes).

Interviewed for Vega Radio "Kvantumsprång", November 2006 on GPS (air time 10 minutes, Swedish)

Lecture notes to be found under URL: <http://users.tkk.fi/~mvermeer>

Earlier awarded research grants

- During 1998-1999 responsible manager for a TEKES- and Vaisala-sponsored project on GPS and atmospheric water vapour.
- During 2003 PaKoMu, Local Co-ordinates and Transformations, financed by Ministry of Agriculture and Forestry.
- During 2006 Heights, Height Systems, Height Models And Their Error Propagation, financed by Ministry of Agriculture and Forestry.
- 2005-2008 (three years) The use of ICT measurement techniques on high-quality construction. Academy of Finland, KITARA programme.
- 2008-2010 Regional Crustal Deformation and Lithosphere Thickness Observed with Geodetic Techniques (RCD-LITO). Academy of Finland. Consortium leader.

Stipends (last 5 years)

None.