

Curriculum vitae: Peter Forkman

Personal

Date and place of birth March 7, 1959 in Lund Sweden

Daughter Frida (1994), sons Max (1992) and Pontus (1990)

Affiliation

Department of Earth and Space Sciences, Chalmers University of Technology

Undergraduate degree

Master of Science in Mathematics and Physics, University of Lund, 1984

PhD degree

Ph.D. Chalmers University of Technology, September 2003,

Title: Ground based measurements of upper atmospheric CO and H₂O using microwave radiometry, *Technical Report No. 456*

Current position

Researcher within the group for Global Environmental Measurements and Modelling, Department of Earth and Space Sciences

Previous positions

- 2013 until present: 50 % Researcher within the group for Global Environmental Measurements and Modelling, Department of Earth and Space Sciences
- 2006 until 2013: 50 % Assistant Professor within the group for Global Environmental Measurements and Modelling, Department of Earth and Space Sciences
- 2003–2006: 50 % Research engineer within the group for Global Environmental Measurements and Modelling, Department of Earth and Space Sciences
- 1994–2003: 50 % Ph.D. student position, Department of Earth and Space Sciences
- 1984–1994 (100 %) and 1994 until 2013 (50 %): Teacher in physics, electronics, and mathematics at gymnasium level, Mimers Hus, Kungälv

Pedagogical education

- 2007: TLE202, Supervision of Research: Principles, Models and Issues (3 hp), Chalmers University of Technology
- 1984 until 2013: Different pedagogical courses for teachers at gymnasium level
- 1984: Pedagogy and methodology (20 credit points = 30 hp), University of Lund

Educational experience

- 2013 until present: Responsible for “Engineering Measurements”, (5 hp) in the 2nd year of the Bachelor programme in Automation and Mechatronics
- 2010 until 2013: Lab instructor in “Engineering Measurements”, (7.5 hp) in the 2nd year of the Bachelor programme in Electrical Engineering
- 1984 until 2013: Teacher at Mimers Hus Gymnasium
- 2011: Examiner and lecturer in the Ph.D. course “Introduction to Radio Astronomy” (4 hp)
- 2011: Examiner and lecturer in basic astronomy (2 hp) at Campus Pedagogen, University of Gothenburg
- 2008–2011: Was responsible for 25 % of “Technology for a sustainable world” (30 hp), the first Chalmers course in “Läraryftet” (education for teachers) (including examination)
- 2008: Planned and developed “Technology for a sustainable world” (30 hp) the first Chalmers course in “Läraryftet” (education for teachers)

Supervision

- 2010 until present: Assistant supervisor for Ole Martin Christensen in his Ph.D. studies
- 2004: Co-supervisor for Erwan Motte in his master student studies (successfully defended his thesis 2004)

Outreach activities

- 2013 until present: Engaged in the outreach activities of Onsala Space Observatory
- 2005-2010: Lecturer in “Vetenskapsfestivalen” (scientific lectures for the general public in Göteborg) with different aspects of climate change including computer exercises

Publication list

2012

Forkman, P., Christensen, O. M., Eriksson, P., Urban, J., Funke, B.: Six years of mesospheric CO estimated from ground-based frequency-switched microwave radiometry at 57° N compared with satellite instruments, *Atmos. Meas. Tech.*, 5, 2827-2841, 2012

Scheiben, D., Straub, C., Hocke, K., Forkman, P., and Kämpfer, N.: Middle atmospheric water vapor and ozone anomalies during the 2010 major sudden stratospheric warming, *Atmos. Chem. Phys.*, 12, 7753–7765, 2012

2011

P. J. Espy, S. Ochoa Fernández, P. Forkman, D. Murtagh, and J. Stegman: The role of the QBO in the inter-hemispheric coupling of summer mesospheric temperatures, *Atmos. Chem. Phys.*, 11, 495-502, 2011

2009

Haefele, A. E., De Wachter, K., Hocke, N., Kaempfer, G. E., Nedoluha, R. M., Gomez, P., Eriksson, P., Forkman, A., Lambert, and M. Schwartz: Validation of ground based microwave radiometers at 22 GHz for stratospheric and mesospheric water vapour *J. Geophys. Res.*, 114, 2009

2007

Espy PJ, Stegman J, Forkman P, Murtagh D.: Seasonal variation in the correlation of airglow temperature and emission rate: *Geophys. Res. Lett.*, 34 Issue: 17, 2007

2006

Forkman, P.M., Shulga, V.M., Pididiachii, V.I., Korolev, A.M., Myshenko, V.V., Myshenko, A.V: An uncooled very low noise Shottky diode receiver front end for ozone and carbon monoxide measurements. *International Journal of Infrared and Millimetre Waves*, 27, 2006

2005

Forkman, P., P. Eriksson, D. Murtagh, and P. Espy: Observing the vertical branch of the mesospheric circulation at latitude 60N using ground-based measurements of CO and H₂O, *J. Geophys. Res.*, 110, 2005

2004

Dupuy, E., J. Urban, P. Ricaud, E. Le Flochmoën, N. Lauté, D. Murtagh, J. de la Nöe, L. El Amraoui, P. Eriksson, P. Forkman, U. Frisk, F. Jégou, and C. Jiménez and M. Olberg: Stratomesospheric measurements of carbon monoxide with the Odin sub-millimetre radiometer: Retrieval and first results, *Geophys. Res. Lett.*, 31, 2004

2003

Forkman P., P. Eriksson and A. Winnberg: The 22 GHz radio-aeronomy receiver at Onsala Space Observatory, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 77, pp.23-42, 2003

Forkman P., P. Eriksson, A. Winnberg, R. R. Garcia and D. Kinnison: Longest continuous ground-based measurements of mesospheric CO, *Geophys. Res. Lett.*, 30 (10), 2003