

Ulrich Hansen

1) General information

- Hansen Ulrich, Dr. rer. nat., date of birth: 28/07/1956, male.
- Westfälische Wilhelms Universität Muenster, Institute for Geophysics, Corrensstr. 24, D-48149 Münster, Tel.: +49 251 8333592, e-mail: hansen@earth.uni-muenster.de.
- Current position: Head of Department 'Geophysics', Full Professor of Geophysics (C4)

2) Academic education and degrees

- Geophysics (1983), University of Cologne, Diploma (Prof. Dr. A Ebel)

3) Scientific degrees

- Habilitation, University of Cologne, 1992 (Prof. Dr. A . Ebel, Prof. Dr. F.M . Neugebauer)
- Doctoral degree: Dr. rer. nat., Geophysics, University of Cologne (1987) (Prof. Dr. A.Ebel)

4) Professional experience

- Since 2002 Visiting Professor, University of Alberta, Dep. Of Physics, Edmonton, Canada
- Since 1996, Full Professor for Geophysics, Institute for Geophysics, Westfälische Wilhelms Universität Muenster
- (1991-1996) Associate Professor for Theoretical Geophysics, Utrecht University (The Netherlands)
- (1987-1991) Postdoctoral Fellow at the Minnesota Supercomputer Institute, University of Minnesota, and University Cologne
- (1985-1987) Research Associate, University Cologne
- (1985-1986) Research Associate, University of Colorado
- (2004) Organizing Committee for the International SEDI meeting in Garmisch-Partenkirchen
- (2003-2009) Review Board for the John von Neumann, Institute for Computing

5) Professional activities

- (1992) Heinz-Maier-Leibnitz Award for Physics of the Earth's Interior, Deutsche Forschungsgemeinschaft
- Organization of the Workshop on Numerical Methods in Geodynamics in Neustadt a.d. Weinstraße (1987) and on Vlieland (The Netherlands) in 1994
- (2004) Organizing Committee for the International SEDI meeting in Garmisch-Partenkirchen
- (2010) Organizer of the German Geodynamics workshop in Muenster
- (2015-2016) Organizer of the annual meeting of The German Geophysical Society in Muenster (2016)
- Member of the Helmholtz Alliance "Planetary Evolution and Life"
- Convenor at several international meetings (DGG, EUG , EGS, SEDI)
- Member of the steering Committee for High performance Computing in Bayer
- Member of the Review Board for the Elitenetzwerk Bayern
- Review Board for the John von Neumann, Institute for Computing
- Reviewer for several international Journals (Nature, Phys. Rev. JGR, EPSL, Journal of Fluid Mech. Etc.) and to Funding agencies (NSF, NERC, NWO,DFG)

6) Publications

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

Ernst-Hullermann, J., Harder, H., Hansen, U., (2013) Finite volume simulations of dynamos in ellipsoidal planets. *Geophys. J. Int.*, 195, p. 1395-1405. doi: 10.1093/gji/ggt303.

Stein, C., Hansen U. & Lowman, J. (2012). The influence of mantle internal heating on lithospheric mobility: implications for super-Earths. *Earth Planet Sci. Lett.* 361, 448-459. Doi:10.1016/j.epsl.2012.11.011

Trümper, T., Breuer, M. & Hansen, U. (2012). Numerical study on double-diffusive convection in the Earth's core. *Physics of the Earth and Planetary Interiors*, 194-195, 55-63.

Petschel, K., Wilczek, M., Breuer, M., Friedrich, R., Hansen, U., (2011): Statistical analysis of global wind dynamics in vigorous Rayleigh-Bénard Convections, *Physical Review E* 84.

Breuer, M. and Hansen, U. (2009): Turbulent convection in the zero Reynolds number limit, *EPL*, 86, 24004.

- King, E.M., Stellmach, S., Noir, J., Hansen, U. and Aurnou, J. M. (2009): Boundary layer control of rotating convection systems, *Nature* 457, doi:10.1038/nature07647.
- Tarduno, J., Bunge, H. P., Sleep, N. and Hansen, U. (2009): The Bent Hawaiian-Emperor Hotspot Track: Inheriting the Mantle Wind, *Science*, 324 (5923); 50 DOI; 10.1126 /Science.1161256
- Loddoch, A. and Hansen, U. (2008): Temporally transitional mantle convection: Implications for Mars, *J. Geophys. Res.* 113, E09003.
- Stein, C. and Hansen, U. (2008): Plate motions and viscosity structure of the mantle – insights from numerical modelling, *Earth Planet. Sci. Lett.* 272, 29-40.
- Hansen, U. and Yuen, D.A. (2000): Extended-Boussinesq thermal-chemical convection with moving heat sources and variable viscosity, *Earth Planet. Sci. Lett.* 176, 401-41.