



Curriculum Vitae Prof. Dr. Onno Oncken

Name: Onno Oncken

Date of birth: 4 June 1955



Image: Markus Scholz | Leopoldina

Research priorities: Structural geology, plate tectonics, geodynamics, orogeny

Onno Oncken is a geologist. His work concerns the Earth's crustal dynamics (lithosphere). His research focuses primarily on the tectonics of plate boundaries and mountain belts, earthquakes, as well as on deformation analysis and analogue modelling.

Academic and Professional Career

- since 2021 Visiting Professor, Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences (GFZ), Potsdam, Germany
- 2018 Visiting Professor, Sorbonne University, Paris, France
- 2014 - 2015 Visiting Professor, Rice University, Houston, USA
- 2007 - 2008 Visiting Professor, California Institute of Technology (Caltech), Pasadena, USA
- 2003 - 2021 Director, Section “Lithosphere Dynamics”, GFZ, Potsdam, Germany
- 1994 - 2021 Professor for Tectonics and Sedimentary Systems, Institute of Geological Science, Freie Universität (FU) Berlin, Berlin, Germany
- 1992 - 2021 Head, Section “Structure, Evolution and Geodynamics”, GFZ, Berlin, Germany
- 1989 Professor for Structural Geology, Institute for Geology, Julius Maximilians University Würzburg (JMU), Würzburg, Germany
- 1988 Habilitation in Geology, Goethe University Frankfurt am Main, Frankfurt am Main, Germany
- 1983 - 1989 Assistant Professor, Institute of Geology and Palaeontology, Goethe University Frankfurt am Main, Frankfurt am Main, Germany
- 1982 - 1983 Postdoc, Department of Earth Sciences, University of Münster, Münster, Germany

- 1982 PhD in Earth Sciences, University of Cologne, Cologne, Germany
- 1980 Diploma in Geology, University of Cologne, Cologne, Germany

Functions in Scientific Societies and Committees

- since 2022 Secretary of class I Mathematics, Natural Sciences and Engineering and Member of the Presidium, German National Academy of Sciences Leopoldina, Germany
- 2019 - 2022 Spokesperson, Working Group “Report on Tomorrow’s Earth System Science”, German National Academy of Sciences Leopoldina, Germany
- 2016 - 2021 Member, Senate Committee on Collaborative Research Centres, German Research Foundation (DFG), Germany
- since 2015 Member, Advisory Board, Excellence Programme, National Research Center for Integrated Natural Disasters Management (CIGIDEN), Chile
- 2010 - 2014 Member, Think Tank “Helmholtz Incubator”, Helmholtz Association of German Research Centres (HGF), Germany
- 2008 - 2013 Member, Excellence Council, FU Berlin, Berlin, Germany
- 2004 - 2012 Member, Review Board, Earth Sciences, DFG, Germany
- 2004 - 2022 Programme Spokesperson, Research Programme, GFZ, Potsdam, Germany
- 2003 - 2014 Chairman, Advisory Board, Alexander von Humboldt Research Centre, Berlin-Brandenburg Academy of Sciences and Humanities (BBAW), Berlin, Germany
- 2003 - 2014 European Editor, Tectonics
- 2001 - 2008 Member, Advisory Board, Minerva Dead Sea Research Center, Tel Aviv, Israel
- 2001 - 2003 Editorial Committee Member, Geology
- 1998 - 2004 Member, Review Board, Alexander von Humboldt Foundation, Berlin, Germany
- 1997 - 2004 Vice President, German Geological Society (GV), Germany

Project Coordination, Membership in Collaborative Research Projects

- 2014 - 2018 Principal Investigator, Subproject “Fault networks and scaling properties of deformation accumulation”, Collaborative Research Centre (SFB) 1114, DFG, Germany
- 2013 - 2018 Member, Executive Board, SFB 1114, DFG, Germany
- 2004 - 2020 Spokesperson, Research Programme “Geosystem: The Changing Earth”, Research Area “Earth and Environment”, HGF, Germany

- 2004 - 2007 Member, Subproject "Dynamics of complex sedimentary basins under varying stress conditions by example of the Central European Basin System", Priority Programme (SPP) 1135, DFG, Germany
- 2003 - 2008 Principal Investigator, Project "From The Incoming Plate to mega Thrust Earthquake Processes" (TIPTEQ), Federal Ministry of Education and Research (BMBF), Germany
- 2002 - 2006 Member of the Advisory Board for the "World Stress Map Project (WSM)", GFZ, Germany
- 2002 - 2004 Principal Investigator, Subproject "Plateau formation recorded by tectonic and climatic signals in intramontane basins in NW Argentina", SFB 267, DFG, Germany
- 2002 - 2004 Principal Investigator, Subproject "3D patterns of mass transfer and deformation resulting from oblique convergence along the Chilean forearc", SFB 267, DFG, Germany
- 1999 - 2004 Spokesperson, SFB 267 "Deformation Processes in the Andes – Interaction between andogenic and exogenic processes during subduction orogenesis", DFG, Germany
- 1999 - 2001 Principal Investigator, Subproject "Structural analysis and exhumation of the eastern Puna at 24°S", SFB 267, DFG, Germany
- 1999 - 2001 Principal Investigator, Subproject "Erosive and accretive mass transfer and the deformation of the forearc", SFB 267, DFG, Germany
- 1998 - 2003 Principal Investigator, project "TRANSALP", BMBF, Germany, Federal Ministry of Science and Transport (BMWV), Austria, Consiglio Nazionale dell Ricerche (CNR), Italy and Eni, Società per azioni (S.p.A.), Rome, Italy
- 1994 - 1997 Principal Investigator, Project "Dekorp 2000", DFG and BMBF, Germany
- 1993 - 1999 Vice Spokesperson, SPP "Orogenic processes – their quantification and simulation", DFG, Germany

Honours and Awarded Memberships

- 2021 Fellow, American Geophysical Union (AGU), Washington D.C., USA
- 2015 Gustav Steinmann Medal, German Geological Society (DGGV), Germany
- since 2006 Member, Academia Europaea
- since 2002 Member, German National Academy of Sciences Leopoldina, Germany
- since 2001 Member, Heidelberg Academy of Sciences, Heidelberg, Germany
- since 1999 Member, BBAW, Berlin, Germany
- 1998 Gottfried Wilhelm Leibniz Award, DFG, Germany

- 1987 Hermann Credner Award, DGGV, Germany
- 1982 - 1983 Postdoc Fellowship, Fritz Thyssen Foundation, Cologne, Germany
- 1980 - 1982 PhD Fellowship, German Academic Scholarship Foundation, Germany

Research priorities:

Onno Oncken is a geologist. His work concerns the Earth's crustal dynamics (lithosphere). His research focuses primarily on the tectonics of plate boundaries, earthquakes, as well as on deformation analysis and analogue modelling.

The regional focus of his early work lies in the Variscides – the Eastern segment of a Late Paleozoic mountain belt in Europe and North America. He also investigated large-scale structures deep in the North German Basin and other European regions.

Since the late 1990s the regional focus of Onno Oncken's work has shifted to the central and southern Andes in South America. As a structural geologist who initially worked intensively on thrust-fold belts, he increasingly turned his attention to fundamental questions of active tectonics, seismology, and geological natural hazards.

Recently, Onno Oncken has been actively supporting various European projects to promote junior scientists. Noteworthy projects include the "European Marie Curie Initial Training Network ZIP (Zooming in between plates)" and "SUBITOP – Training and Career Development", which focuses on understanding subduction zone topography through modelling of coupled shallow and deep processes.