

Curriculum Vitae
Dr. Gabriele Uenzelmann-Neben
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Dr Uenzelmann-Neben's work has a strong focus on the reconstruction of the development of the oceanic circulation in response to tectono-magmatic processes shaping the seafloor topography and as a climate tracer (base for oceanographic-climatological simulations). High resolution seismic reflection data have been interpreted to provide information on the evolution of the pathways and intensity of, e.g., Antarctic Bottomwater (AABW) and Antarctic Intermediate Water (AAIW) as well as the study of water mass flow variations in response to the opening of the Drake Passage and the Tasman gateway. In addition, Dr. Uenzelmann-Neben has a track record in reconstructing Antarctic ice-sheet dynamics from seismic profiles collected on the continental shelf, slope and rise.

Education

- 1980-1985 study of Geophysics with subsidiary subjects Theoretical Physics, Physical Oceanography and Geology, University Hamburg
- 12.1985 Diploma Thesis 'Interpretation of aeromagnetic anomalies in Iran'
- 12.1988 PhD Thesis 'Sediments of the southern Outer Vöring Plateau – a high-resolution seismic reflection investigation', Christian-Albrechts-Universität zu Kiel

Occupations

- 2.86-2.89 Research assistant at Institute for Geophysics, University Kiel
- 3.89-2.92 Post-Doc at Alfred-Wegener-Institut für Polar- und Meeresforschung, Bremerhaven
- 3.92-12.92 Post-Doc at University Bremen
- Since 1.93 Senior Scientist at Alfred-Wegener-Institut für Polar- und Meeresforschung, Bremerhaven
- Principle Investigator of several project dealing with the reconstruction of palaeo-currents via the investigation of seismic reflection data; Chief Scientist on several expeditions; working group leader on expeditions; project leader and project management; supervision of Diploma, Master and Ph students as well as Post Docs; occasional lecturing at University of Bremen (seismic methods)
- 11.2013 research stay University of Louisiana, USA (Prof. Dr. P. Clift)

Additional tasks:

Reviewer

- *for journals/publishers*
among others Geophysical Journal International, Journal of Geophysical Research, Geological Society London, Geology, Marine Geology, Marine Geophysical Researches, Nature, Nature Geoscience, several conference proceedings volumes
- *for funding agencies*
e.g., DFG, BMBF, Senatskommission für Ozeanographie, Gutachterpanel Forschungsschiffe, US NSF, South Africa NRF, Italy PNRA, Switzerland SNSF, Australia ARC

Panels

- Member of Steering Committee of DFG Priority Programme 1375 'SAMPLE'
- Member of IODP Site Evaluation Panel (2010-2015)
- ECORD Distinguished Lecturer 2014-2016
- Member of International Peer Review Panel of the Danish Council for Independent Research | Natural Science (2016-2018)
- Member of Scientific Advisory Board Leibniz Institut für Angewandte Geophysik im GeoZentrum Hannover (>2016), 2020-2023 chair
- Member of ECORD Facility Board (= IODP entity for Mission Specific Platform drilling) 2017-2024, 2018 vice-chair, 2019-2022 chair, 2022-2024 vice-chair

- Editor-in-Chief Geo-Marine Letters (>2017)

Research interests

- continental margins
- Geophysics of the Polar regions
- sediment transport processes
- reconstruction of sedimentary environments, climate and oceanic circulation using the high resolution seismic imaging of sedimentary structures
- large igneous provinces LIPs (formation and impact on climate and circulation)
- seismic reflection data

Field experience

- 8.84 `Schwarzer Zollerwald` Seismic reflection acquisition in the Black Forest
- 7.85 `COOLE 85` Seismic reflection acquisition in Ireland
- 7.86 Seismic reflection acquisition in the Norwegian Greenland Sea with FS *Valdivia*
- 6.88 Seismic reflection acquisition near Iceland and the F eroes with FS *Poseidon*
- 7.88 Seismic reflection acquisition on the Barents Shelf with FS *Meteor*
- 12.89-3.90 ANT-VIII/5, Seismic reflection and refraction, gravity and magnetic acquisition in the Weddell Sea, PFS *Polarstern*
- 8.90-10.90 ARK-VII/3, Seismic reflection and refraction and gravity acquisition in Scoresby Sund, Gr nland, PFS *Polarstern*
- 8.91-10.91 ARK-VIII/3, Seismic reflection and refraction and gravity acquisition in the central Arctic Ocean, PFS *Polarstern*
- 4.93-6.93 SO 86, Seismic reflection acquisition in the Angola Basin (chief of seismic team), FS *Sonne*
- 1.96 M34-1, Seismic reflection acquisition in the Cape Basin (chief of seismic team), FS *Meteor*
- 3./4.97 M38-2, Seismic reflection acquisition across the Amazona Fan (chief of seismic team), FS *Meteor*
- 12.97-1.98 SETARAP - Seismic reflection and refraction acquisition in the areas of the Agulhas Ridge and the Agulhas Plateau (planning and chief scientist), RV *Petr Kottsov*
- 1./2. 2003 SO 169, CAMP Seismic reflection and refraction acquisition on the Campbell Plateau, New Zealand (planning and co-chief scientist, chief of seismic team), FS *Sonne*
- 3./4. 2005 SO 182, AISTEK-I Seismic reflection and refraction acquisition in the areas of the Agulhas Bank, the Agulhas Plateau and the Transkei Basin (planning and chief scientist), FS *Sonne*
- 6./7. 2009 MSM 12/2, Eirik Drift Seismic reflection acquisition and geological sampling in the areas of the Eirik Drift, South Greenland (planning and chief scientist), FS *Maria S. Merian*
- 2.-4. 2010 ARK-XXVI/3, Amundsen Sea Seismic reflection acquisition in the area of the Amundsen Sea, southern Pacific (planning and chief of seismic team), PFS *Polarstern*
- 1.-3. 2011 So 213, SOPATRA Seismic reflection acquisition in the area of the southern Pacific (planning and chief of seismic working group), FS *Sonne*
- 10./11. 2011 MSM 19/2, Agulhas Ridge Seismic reflection acquisition in the area of the Agulhas Ridge, southern Atlantic (planning and chief scientist), FS *Maria S. Merian*
- 10./11. 2012 So 224, Manihiki II Seismic reflection acquisition in the area of the Manihiki Plateau, southwestern Pacific (planning and chief scientist), FS *Sonne*
- 3.-5. 2014 So 232, SLIP Seismic reflection acquisition in the area of the Mozambique Ridge, southwestern Indian Ocean (planning and chief scientist), FS *Sonne*
- 2.-3.2017 PS 104, seismic data acquisition on the Amundsen Sea shelf, Antarctica (planning and chief of seismic working group), FS *Polarstern*
- 2.-3.1019 MSM 81 Falkland Sediment Drifts Seismic reflection acquisition in the area of the Falkland Plateau (planning and chief scientist), FS *Maria S. Merian*
- 1.-3.2020 SO272 Kerguelen Plateau, seismic reflection acquisition in the area of the Labuan Basin and William's Ridge (planning and chief scientist), FS *Sonne*

2.-4.2022 IODP Expedition 392 'Agulhas Plateau Cretaceous Climate', scientific drilling, Co Chief,
JOIDES Resolution

Co-supervision of PhD students:

Frank Nitsche, University Bremen, 1997
Estella Weigelt, University Bremen, 1997
Etienne Wildeboer Schut, University Bremen, 2004
Jan Grobys, University Bremen, 2007
Philip Schlüter, University Bremen, 2008
Nicole Parsiegl, University Bremen, 2009
Xin Li, University Bremen, 2012
Ansa Lindeque, University Bremen, 2014
Antje Müller-Michaelis, University Bremen, 2014
Michael Horn, University Bremen, 2015
Ricarda Pietsch, University Bremen, 2016
Katharina Hochmuth, University Bremen, 2016
Max Fischer, University Bremen, 2017
Banafsheh Najjarifarizhendi, on-going
Matthias Schneider, on-going
Johann Gille-Petzold, on-going

Co-supervision of Bachelor students:

Janine Bösel, University Bremen (2012)

Awards:

for the presentation

"Uenzelmann-Neben, G.; Jokat, W.; Mandler, H.: Sedimentverteilung und Krustenstruktur im Scoresby Sund, Ost Grönland aus seismischen Untersuchungen" given at the 52. Jahrestagung of the Deutsche Geophysikalische Gesellschaft in Leipzig 1992.