

KATRIN MONECKE

Kent State University
Department of Geology
212 McGilvrey
Kent, OH 44242, USA

++1 330 6729465
kmonecke_gst@kent.edu

EDUCATION

- Apr 2000 – Jun 2004* *PhD student at the Department of Earth Sciences, ETH Zurich, Switzerland*
- Thesis title: Earthquake-induced deformation structures in lake sediments - a Late Pleistocene to Holocene paleoseismic record for Central Switzerland
 - Advisor: Prof. D. Giardini
- Oct 1994 - Jul 1995* *Visiting student at the University of Parma, Italy*
- Oct 1991 - Mar 1999* *Student at the Institute of Geology and Paleontology, University of Hannover, Germany*
- Master thesis in collaboration with the Federal Institute for Geosciences and Natural Resources (BGR), Hannover, Germany
 - Thesis title: Mapping and facies analysis of Quaternary alluvial deposits along the southern Miristi Khola, Myagdi, Nepal.
 - Advisors: Prof. J. Winsemann, Dr. J. Hanisch
- Sep 1990 - Jul 1991* *Italian language courses in Rome, Italy*
- Aug 1984 - Jul 1990* *Highschool in Bramsche, Germany*
-

PROFESSIONAL EXPERIENCE

- Since Feb 2006* *Postdoctoral Scientist at the Department of Geology, Kent State University, Kent, Ohio, USA*
- May 2005 – Jan 2006* *Postdoctoral Scientist at the Institute for Aquatic Research (EAWAG), Zurich-Dubendorf, Switzerland*
- Jul 2004 – Apr 2005* *Organisation and scientific support of public exhibition "Discover Earth and Life Dynamics" at ETH Zurich, Switzerland*
- Apr 2000 – Jun 2004* *Teaching assistant at the Geological Institute, ETH Zurich, Switzerland*
- Jul 1999 - Sep 1999* *Scientist at the Department of Engineering Geology and Geotechnics at the Federal Institute for Geosciences and Natural Resources (BGR), Hannover, Germany*
- Jul 1996 - Mar 1999* *Research assistant at the Department of Engineering Geology and Geotechnics at the Federal Institute for Geosciences and Natural Resources (BGR), Hannover, Germany*

RESEARCH INTERESTS

Since Feb 2006 at Kent State University:

- Coastal hazards
- Sedimentary characteristics of the 2004 Indian Ocean tsunami deposit in northern Sumatra and Thailand
- Sedimentary record of paleotsunamis in northern Sumatra

May 2005 – Jan 2006 at the EAWAG, Institute of Aquatic Research, Dübendorf-Zürich:

- Climate and environmental changes in the northern Alps during the Late Pleistocene/ Holocene inferred from lacustrine deposits

Apr 2000 – Jun 2004 at the Department of Earth Sciences, ETH Zürich:

- Seismic hazard assessment, paleoseismology
- Soft sediment deformation structures in lacustrine sediments
- Origin and process of subaquatic mass movements
- Sedimentology of lacustrine deposits

Jan 1997 – Mar 1999 at the Institute of Geology, University of Hannover:

- Mapping and facies analysis of Quaternary alluvial deposits
- Timing, origin and process of subaerial mass movements

Jul 1996 – Sep 1999 at the Department of Engineering Geology and Geotechnics, Federal Institute for Geosciences and Natural Resources (BGR), Hannover:

- Permeability of salt rocks and granites regarding nuclear waste disposal
-

TEACHING EXPERIENCE

Apr 2000 – Jun 2004: Teaching assistant at the Geological Institute, ETH Zürich:

- Geological mapping (exercises and field courses in the Swiss Alps)
- Sedimentary petrography
- Limnogeology
- field trips "Introduction to Earth Sciences" in the Jura mountains and Swiss Alps

Apr 1993 – Jun 2004: Teacher of rowing courses at rowing clubs in Hannover and Zürich

ANALYTICAL EXPERIENCE

- Sedimentological field work
- Peat coring (Ejkelkamp peat corer)
- TOC and TIC measurements (CNS-Analyser and Coulometer)
- Sedimentological analysis of lacustrine core samples
- GEOTECH multiscanner core analysis
- Gravity and piston coring in lakes (Kullenberg and UWITEC coring devices)
- Seafloor mapping
- High resolution seismics in lakes and seismic facies analysis using KINGDOM SUITE software
- Analysis of fault systems based on oriented core samples from salt rocks
- Mapping and analysis of fault systems in tunnels within granitic rocks

PUBLICATIONS

- BECKER, A., FERRY, M., MONECKE, K., SCHNELLMANN, M. & GIARDINI, D. (2005): Multiarchive paleoseismic record of Late Pleistocene and Holocene strong earthquakes in Switzerland. *Tectonophysics*, 400: 153-177.
- MONECKE, K., ANSELMETTI, F. S., BECKER, A., STURM, M. & GIARDINI, D. (2004): The record of historic earthquakes in lake sediments of Central Switzerland. *Tectonophysics*, 394: 21-40.
- MONECKE, K., WINSEMANN, J. & HANISCH, J. (2001): Climatic response of Quaternary alluvial deposits in the upper Kali Gandaki valley (West Nepal).-*Global and Planetary Change*, 28: 293-302.
- MONECKE, K., WINSEMANN, J. & HANISCH, J. (2000): Faziesarchitektur quartärzeitlicher Terrassenkörper des oberen Kali Gandaki Tals (West Nepal).-*Z. dt. geol. Ges.*, 151: 59-80.
- MONECKE, K. & MATTERN, F. (1998): Das Kluftsystem im Bereich des Naturdenkmals "Saurierfähren Münchehagen".-*Mitt. geol. Inst. Univ. Hannover*, 37: 103-112.
- MATTERN, F.; MAYER, M. & MONECKE, K. (1994): Die Klüfte im Sandstein der Bückeberg-Formation (Unterkreide) des Naturdenkmals "Saurierfähren Münchehagen", Salzstruktur Rehburg.-*Ber. naturhist. Ges. Hannover*, 136: 67-74.

Submitted:

- MONECKE, K. & STURM, M.: Late Glacial to Holocene climate variability and anthropogenic impact as reflected in a high resolution sedimentary record from Baldegger See, Central Switzerland. *Subm.*
- MONECKE, K., ANSELMETTI, F. S., BECKER, A., SCHNELLMANN, M., STURM, M. & GIARDINI, D.: Earthquake-induced deformation structures in lake sediments – The paleoseismic record for Central Switzerland. *Subm.*

ABSTRACTS

- BEITEL, J., MORAN, K., LYALL, K., MONECKE, K., GRILLI, S., NUGRANAD-MARZILLI, J. (2006): Coastal Effects of the December 26th Tsunami on Ko Phra Thong, Thailand. *AGU, San Francisco/USA*.
- MONECKE, K., FINGER, W., KONGKO, W., MCADOO, B., MOORE, A. & SUDRAJAT, S. U. (2006): Sedimentary characteristics of the December 2004 Indian Ocean tsunami deposit and the potential of a long tsunami record in the ridge and swale region between Meulaboh and Calang, northern Sumatra. *GSA, Philadelphia/USA*
- Dalal, M., Monecke, K, and Moore, A., 2006, Sedimentation from 2005 Hurricane Katrina on the Mississippi and Alabama Gulf Coast barrier islands. *GSA, Philadelphia/USA*.
- MONECKE, K. & STURM M. (2005): Late Glacial to Holocene climate variability and anthropogenic impact as reflected in a high resolution sedimentary record from Baldegger See, Central Switzerland. *Sediment 2005, Bern/Switzerland + EGU 2005, Vienna/Austria*.
- MONECKE, K., ANSELMETTI, F. S., BECKER, A., STURM, M. & GIARDINI, D. (2004): Signature of historic and prehistoric earthquakes in lake sediments – paleoseismic investigations in central Switzerland. *IGC, Florence/ Italy*.
- MONECKE, K., ANSELMETTI, F. S., BECKER, A., STURM, M. & GIARDINI, D. (2003): Small-scale deformation structures in Holocene lake sediments in central Switzerland as indicators of paleoearthquakes. *IAS, Opatija/Croatia*.
- MONECKE, K., ANSELMETTI, F. S., BECKER, A., STURM, M. & GIARDINI, D. (2003): Signature of historic earthquakes in lake sediments of central Switzerland. *Sediment 2003, Wilhelmshaven/Germany + Swisssed 2003, Fribourg/ Switzerland + CENAT-PhD-Meeting, Schwarzsee/ Switzerland + Int. Limnogeol. Congress (ILIC), Tucson/ USA*.
- MONECKE, K., ANSELMETTI, F. S., BECKER, A., STURM, M. & GIARDINI, D. (2001): Sedimentary Patterns in Lake Lungern, Central Switzerland: a Potential Archive of the Regional Holocene Earthquake History. *Schweizerische Akademie der Naturwissenschaften, Yverdon/ Switzerland + EUG, Strasbourg/France*.
- MONECKE, K., ANSELMETTI, F. S., BECKER, A., STURM, M. & GIARDINI, D. (2001): Small-scale Deformation Structures in Holocene Lake Deposits of Central Switzerland: a Possible Indicator of Paleoeearthquakes? *CENAT-PhD-Meeting, Zürich/ Switzerland + IAS, Davos/ Switzerland*.
- MONECKE, K. & WINSEMANN, J. (2000): Architecture of late quaternary alluvial terraces in the upper Kali Gandaki valley (West Nepal): Climatic versus tectonic control. *FLAG (Fluvial Archives Group), annual meeting, Mainz/ Germany*.