Contact Information

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Summary

Ph.D. educated structural geologist, team player, extensive academic research and some industry consulting experience, U.S - German education, specializing in quantitative 3d model building, regional synthesis and seismic interpretation, well versed in standard petroleum industry interpretation and modelling software, programming.

Membership in professional association

since 1996: professional member of the American Geophysical Union (AGU)
since 2001: professional member of the American Association of Petroleum Geologists (AAPG)

Employment in the field

11/2001-current: Research Associate at Earth & Planetary Sciences, Harvard University, Cambridge, MA, U.S.A.

- will help in state-wide reevaluation of seismic risk by the State of California.
- co-lead interdisplicinary and cross-institutional multi-year research effort into large scale 3d fault structure of southern California.
- developed 3d characterisation of faults in Los Angeles Basin, California.
- determined 3d structural setting of 2001 M4.2 earthquake in Hollywood, California.
- became proficient in discrete element modelling techniques and simulated fault scarp development using such code.
- co-supervised several senior theses projects.
- helped plan and implement a modern visualization and computational facility at the Structural Geology and Earth Resources Group.
- provided expert knowledge to various oil companies.

11/1999-10/2001: Post-Doctoral Fellow at Earth & Planetary Sciences, Harvard University, Cambridge, MA, U.S.A.

- managed and supported structural geology computer lab.
- assisted completion of a senior thesis project, was involved in others.
- prepared study of 3d earthquake sources in the Los Angeles Basin, California.

- helped raising funds for phase 2 of SCEC (Southern California Earthquake Center).
- contributed to high resolution seismic study in Los Angeles, California.
- took partial responsibility for the Unified Structural Representation of southern Californa, a Southern California Earthquake Center effort.

9/1994-10/1999: Ph.D. student at the GeoForschungsZentrum Potsdam, Germany

- developed the project "3d-modelling of an external orogenic wedge" under the special program "Orogenic processes" of the German Science Foundation.
- proposed with my advisor successfully annual detailed projects to the German Science Foundation (15kDM/a + salary) and delivered concise reports.
- distributed novel research to specialists at 3 national and 4 international conferences.
- co-operated internationally.
- facilitated the use of a well equipped computer lab for quantitative structural methods including support of external users.
- pioneered the investigation of the 3d structure and kinematics of a palaeozoic foreland fold- and thrust belt (Ph.D. Project).

1991-8/1994: Teaching Assistant at the department of Earth Sciences of the University at Albany, NY, U.S.A.

- assisted ca. 20 students/a in labs to a total of 5 classes and took responsibility for their evaluation by grading.
- mapped in detail the structure of a 20km x 40km key area of the Taconic Orogeny in 12 weeks
- compiled a new geologic map of Taconic flysch in N.Y. state incorporating previously unpublished data
- clarified historical confusion in this area and extracted an improved tectonic model (non accretionary shortening)
- published research results in a M.Sc. thesis, an abstract and at a regional conference

Recent presentations:

9/2005: poster and multimedia presentation at the annual meeting of the Southern California Earthquake Center, Palm Springs, CA
6/2005: invited oral presentation at the Finite Element Modeling of Fault Systems workshop at LANL, Los Alamos, NM
9/2004: poster and multimedia presentation at the annual meeting of the Southern California Earthquake Center, Palm Springs, CA
9/2004: invited oral presentation at Arrowsmith conference, Palm Springs, CA
7/2004: software presentation at the Finite Element Modeling of Fault Systems workshop at LANL, Los Alamos, NM
2/2004: invited oral presentation at the University of Potsdam, Potsdam, Germany
12/2003: poster presentation at the AGU Fall meeting, San Fransisco, CA
9/2003: poster and multimedia presentation at the annual meeting of the Southern California Earthquake Center, Oxnard, CA
12/2002: poster presentation at the AGU Fall meeting, San Fransisco, CA
12/2001: poster presentation at the AGU Fall meeting, San Fransisco, CA

6/2001: poster and multimedia presentation at the AAPG annual meeting, Denver, CO.

Education

1999 Ph.D., Free University, Berlin and GFZ Potsdam, Germany, Department "Structure and evolution of the lithosphere"
1994 M.Sc., University at Albany, NY, U.S., Department of Earth and Atmospheric Sciences
1991 Vordiplom, Julius Maximilians Universitaet, Wuerzburg
1987 Abitur, Schongau, Germany

Software skills

Earthdecision Sciences Gocad incl. advanced scripting, 3dmove, PFC (Particle Flow Code), Landmark Openworks, SMT (Kingdom Suite), Erdas Imagine, Geosec, 2dmove, Orogeny (isostacy), Unix administration (Irix, Linux) and tool box (awk, tcl, bash ...)

see separate sheet for bibliography