



## Simon Klempner

Professor of Geophysics and, by courtesy, of Earth and Planetary Sciences

 Curriculum Vitae available Online

### Bio

---

#### BIO

I lead the "Crustal" research group within the Department of Geophysics. We study structure, tectonics, deformation, growth and composition of the continental lithosphere, largely using active and passive seismology. Our emphasis is the creative combination of the full range of geologic and geophysical data, existing or of our own collection, analyzed often using relatively standard techniques, rather than striving to create entirely new methodologies - though in the last few years we have significantly improved the VDSS (SsPmp) method, and have created the Sn/Lg method to test whether continental earthquakes are have hypocenters above or below the Moho. For 25 years I have studied Tibet and the Himalaya, including the INDEPTH reflection/refraction transect across the Plateau, analysis of broadband campaign data from India, Nepal and China, and most recently geochemical and isotopic studies of geothermal fluids to tackle the questions that seismology can't reach. I helped institute, and have continued to be faculty director of, the SE3 Summer Undergraduate Research program that places and mentors >20 Stanford frosh/sophomores in SE3 research opportunities each year, and until recently was Director of Undergraduate Studies in Geophysics.

#### ACADEMIC APPOINTMENTS

- Professor, Geophysics
- Professor (By courtesy), Earth & Planetary Sciences

#### ADMINISTRATIVE APPOINTMENTS

- Technical Assistant, Rutherford Laboratory, Chilton, Oxfordshire, (1976-1977)
- Research Associate, BIRPS, Cambridge University, (1985-1987)
- Royal Society University Research Fellow, BIRPS, Cambridge University, (1987-1990)
- Visiting Scientist, U.S. Geological Survey, (1985-1985)
- Associate Professor, Stanford University, (1990-2005)
- Associate Professor (by courtesy) Geological and Environmental Sciences, Stanford University, (1995-2005)
- Visiting Professor in Geology, Royal Holloway, University of London, (1999-2004)
- Professor (by courtesy) Geological and Environmental Sciences, Stanford University, (2005- present)
- Professor of Geophysics, Stanford University, (2005- present)

#### HONORS AND AWARDS

- Exceptional Reviewer, Geological Society of America (2023)
- Union Fellow, American Geophysical Union (2018)
- Cox Medallist, Allan V. Cox Medal for faculty excellence fostering undergraduate research (2008)

- Fellow, Geological Society of America (1995)
- President's Award, Geological Society of London (1988)
- Fellow, Royal Society University Research Fellowship (1987 - 1990)
- Milton Dobrin Scholar, Society of Exploration Geophysicists (1982 - 1984)
- Distinguished Lecturer, NSF-MARGINS program (2008-2010)
- School of Earth Sciences Excellence in Teaching Award, Stanford University (2010)

## **BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS**

- Department of Geophysics Fellowship Committee, Chair, Stanford University (2012 - present)
- NASA Review Panel, Earth Surface and Interior (2012 - 2012)
- Career Advisory Board, Career Development Center, Stanford University (2011 - present)
- Editorial Advisory Board, Himalayan Geology (2011 - present)
- Department of Geophysics Graduate Admissions Committee, Stanford University (2011 - 2018)
- Invited Speaker, International Symposium on Deep exploration of the Lithosphere, Beijing (2011 - 2011)
- Scientific Advisor, Sinoprobe, China's national program to explore the deep structure of China (2010 - present)
- SES Computational Earth Sciences Committee, Stanford University (2010 - 2018)
- Co-convenor, 25th Himalaya-Karakoram-Tibet International Workshop, San Francisco, June (2010 - 2010)
- Lead Convenor, NSF Workshop on "Future directions for NSF-sponsored geoscience research in the Himalaya/Tibet" (2010 - 2010)
- Chair, Geophysics Undergraduate Curriculum Committee, Stanford University (2009 - 2010)
- Aurora Forum public lecture and KQED radio broadcast, Tibet, where continents and cultures collide (2009 - 2009)
- Invited speaker, Gravity & Magnetism Luncheon, Society of Exploration Geophysicists (2009 - 2009)
- Committee on Review of Undergraduate Majors (C-RUM) of the Academic Council, Stanford University (2008 - 2011)
- NSF-MARGINS Distinguished Lecture tour, Lamont, U of Arizona, UC Riverside, SF State, SMU, MSU, Chapman, UC Ft.Collins, PGS (2008 - 2010)
- Planning committee, NSF-MARGINS program, Second Decade (2008 - 2008)
- Chair, Thompson Postdoctoral Fellow search, Stanford University (2007 - present)
- Co-Director, School of Earth Sciences (Summer) Undergraduate Research program, Stanford University (2007 - present)
- Freshman Advisor, Stanford University (2007 - 2010)
- Secretary, U.S. Commission on Controlled-Source Seismology (2007 - 2010)
- Director, Geophysics (Summer) Undergraduate Research Program, Stanford University (2006 - 2006)
- Director of Undergraduate Studies, Department of Geophysics, Stanford University (2005 - 2018)
- GES Undergraduate Curriculum Committee, Stanford University (2005 - 2006)
- SES Diversity Committee, Stanford University (2005 - 2006)
- Convenor, Earthscope Workshop, 3D seismic reflection at the SAFOD site (2005 - 2005)
- Convenor, US-Africa Workshop, Anatomy of Continental Rifts, Addis Ababa (2004 - 2004)
- Keynote speaker, Channel Flow in Continental Collision Zones, Geological Society, London (2004 - 2004)
- University EHS Earthquake Building Assessment Team, Stanford University (2003 - present)
- Geophysics Faculty Safety Representative, Stanford University (2002 - present)
- ILP Project III-8 Committee Member, Processes and Geodynamics in the Formation and Exhumation of Ultrahigh-Pressure Metamorphic Terrain (2002 - 2005)
- Organizer, Stanford presence, AGU Academic Showcase (Fall) Meeting (2002 - 2005)

- Convenor, NSF-IFREE-MARGINS workshop, Izu-Bonin-Mariana Subduction Factory (2002 - 2002)
- Convenor, The George Thompson Symposium: The Lithosphere of Western North America and its Geophysical Characterization, Stanford University (2001 - 2001)
- Department Admissions Chair, Stanford University (2000 - 2005)
- Invited speaker, universities of Cambridge, Durham, London, Leicester (1999 - 1999)
- Member, NSF EAR Continental Dynamics Review Panel (1998 - 2004)
- Earth Sciences Library Committee, Stanford University (1997 - present)
- Member, NSF EAR-OCE MARGINS Science Committee (1997 - 2002)
- Member, ILP Project Team, Ocean-Continent Lithosphere Boundary (1997 - 1999)
- Earth Sciences Ocean Margins Initiative Committee, Stanford University (1995 - 1998)
- Director, School of Earth Sciences Geographic Information Systems Lab, Stanford University (1994 - 1999)
- Sophomore Advisor, Stanford, Stanford University (1992 - 2005)
- Ex Officio member, IRIS Standing Committee, Program for Array Seismic Studies of the Continental lithosphere (1992 - 1999)
- Freshman Advisor, Stanford University (1991 - 2005)
- Stanford Rhodes-Marshall Panel, Stanford University (1991 - 2005)
- Director, IRIS-PASSCAL Instrument Center (1991 - 1998)
- Faculty Advisor, Masters in Exploration and Development Program, Stanford University (1990 - 1998)

## PROGRAM AFFILIATIONS

- Center for East Asian Studies

## PROFESSIONAL EDUCATION

- Ph.D., Cornell University , Geophysics (1985)
- M.A., Cambridge University (1984)
- B.A., Cambridge University , Mineralogy and Petrology (1980)

## LINKS

- Google Scholar Profile: <http://scholar.google.co.uk/citations?user=lkUWQmQAAAAJ&hl=e>
- Research Group: Crustal Geophysics: <https://crustal.stanford.edu/>

## Research & Scholarship

---

### CURRENT RESEARCH AND SCHOLARLY INTERESTS

#### Biographical Information

I attended Cambridge University as an undergraduate; took my PhD at Cornell University within the Consortium for Continental Reflection profiling (COCORP) then returned to Cambridge to work with the British Institutions Reflection Profiling Syndicate (BIRPS), latterly as a Royal Society Research Fellow. In 1990 I joined Stanford University, where I continue research into crustal structure and evolution.

#### Research

I study the growth, tectonic evolution, and deformation of the continents (see my Google Scholar profile). My research group undertakes field experiments in exemplary areas such as, currently, the Tibet plateau (formed by collision between Indian and Asia - we're working on the northern, Kunlun, and the southern, Himalayan, boundaries of the Plateau); the actively extending Basin-&-Range province of western North America (we are working on the Ruby Range Metamorphic Core Complex in Nevada, and the leaky transform beneath the Salton Trough in southernmost California);

and in recent years the Ethiopian rift valley (where the African continent is being pulled apart) and the Mariana island chain (where new crust is forming beneath active volcanoes). We create controlled seismic sources—explosions—to drive sound waves into the Earth, and from our recordings of reflected waves at distant receivers, we form images of the deep structure and measure the physical properties of the continents. We also use the transmitted sound waves from distant earthquakes, the temporal fluctuations of natural electrical fields in the Earth, and small spatial variations of Earth's gravitational and magnetic fields for the same purposes. We maintain an ultra-low frequency electromagnetic (ULFEM) network of stations on the San Andreas fault system in the San Francisco Bay Area in an attempt to learn whether or not ULFEM earthquake precursors exist.

### Teaching

I direct the geophysics undergraduate program, which we have recently re-invigorated with the development of a new course sequence. I co-lead the School of Earth Sciences Undergraduate Research Program that now involves 25 undergraduates each summer, drawn from across the university to all four Departments of the School of Earth Sciences. Over the last decade I have personally mentored 14 undergraduates (7 women) in research projects that have led to 4 undergraduate-authored peer-reviewed publications. I am recipient of the 2008 Allan V. Cox Medal for fostering undergraduate research. I teach graduate classes in seismic reflection methodology (3-quarter sequence), an upper-level undergraduate class in global tectonics and a complementary multi-day tectonics field trip to view large-scale structure of the western USA. I include undergraduates in my research teams in our field experiments, both in the western USA and internationally, and invite applications from Stanford students. My former graduate students are now professors in universities in the USA and abroad, research scientists at the U.S. Geological Survey, and exploration geophysicists in a range of oil companies and their service industries.

### Professional Activities

I am an Advisor to SINOPROBE, China's national program to explore the deep structure of their lithosphere. I was an NSF-MARGINS Distinguished Lecturer, 2008-2010, and served on the 2008 NSF-MARGINS planning committee for the "Second Decade of MARGINS". Convenor, 25th Himalaya-Karakoram-Tibet Workshop, (2010); NSF Workshop, "Future directions for NSF-sponsored geoscience research in the Himalaya/Tibet" (2010); Earthscope Workshop, "3D seismic reflection at the SAFOD site" (2005); U.S.-Africa Workshop, "Anatomy of Continental Rifts", Addis Ababa (2004); NSF-IFREE-MARGINS workshop, "Izu-Bonin-Mariana Subduction Factory" (2002); "The George Thompson Symposium: The Lithosphere of Western North America and its Geophysical Characterization", Stanford University (2001). Member, NSF EAR Continental Dynamics Review Panel (1998-2004).

## PROJECTS

- SINOPROBE in western Tibet: the Karakoram Fault - Stanford and SINOPROBE
- NAMASTE - Nepal Aftershock Monitoring Applied to Seismicity, Tectonics, Earthquakes - Stanford; Department of Mines & Geology, Nepal; UTEP; OSU
- HIMPROBE (a lithospheric geotranssect across the Indian NW Himalaya) - Stanford and NGRI
- INDEPTH (International Deep Profiling of Tibet and the Himalaya) - Stanford and Chinese Academy of Geological Sciences
- Santa Catalina Island Terraces/Tectonics Low Energy Survey (SCITTLES)
- Broadband Salton Seismic Imaging Project (bb-SSIP) - Stanford
- Passive Seismic Imaging of Ruby Mountains Core Complex - Stanford
- Ultra-low frequency electromagnetic monitoring of the San Andreas Fault - Stanford and U.S. Geological Survey
- EAGLE (Ethiopia-Afar Geoscientific Lithospheric Experiment)

## Teaching

---

### COURSES

2025-26

- Geophysics Department Seminar: GEOPHYS 300 (Aut, Win, Spr)
- Introduction to the Foundations of Contemporary Geophysics: EARTHSYS 110, GEOPHYS 110 (Win)
- Tectonics: GEOPHYS 385E (Aut, Win, Spr)
- Tectonics Field Trip: EPS 189, EPS 289, GEOPHYS 108, GEOPHYS 214 (Spr)

#### 2024-25

- Geophysics Department Seminar: GEOPHYS 300 (Aut, Win, Spr)
- Senior Seminar: Issues in Geophysics: GEOPHYS 199 (Win)
- Tectonics: GEOPHYS 385E (Aut, Win, Spr, Sum)
- Tectonics Field Trip: EPS 189, EPS 289, GEOPHYS 108, GEOPHYS 214 (Spr)

#### 2023-24

- Geophysics Department Seminar: GEOPHYS 300 (Aut, Win)
- Introduction to the Foundations of Contemporary Geophysics: EARTHSYS 110, GEOPHYS 110, GEOPHYS 215 (Win)
- Senior Seminar: Issues in Earth Sciences: EPS 150, GEOPHYS 199 (Aut)
- Tectonics: GEOPHYS 385E (Aut, Win, Sum)

#### 2022-23

- Geophysics Department Seminar: GEOPHYS 300 (Aut, Win, Spr)
- Senior Seminar: Issues in Earth Sciences: GEOLSCI 150, GEOPHYS 199 (Aut)
- Tectonics: GEOPHYS 385E (Aut, Win, Spr)

## STANFORD ADVISEES

Jason Craig

### Doctoral Dissertation Reader (AC)

Trey Knudson

### Doctoral Dissertation Advisor (AC)

Jason Craig, Junyi Gong, Xiaohan Song

## Publications

---

### PUBLICATIONS

- **Himalayan sub-Moho earthquakes suggest crustal faults trigger eclogitized-drip tectonics.** *Scientific reports*  
Song, X., Klemperer, S. L.  
2026
- **Venting the roof of the world: Active faults circulate meteoric fluids through upper-crustal geothermal systems of the Himalaya-Tibet orogen** *GEOLOGY*  
Craig, J. W., Klemperer, S. L., Crossey, L. J., Karlstrom, K. E., Winn, C.  
2026
- **Continental mantle earthquakes of the world.** *Science (New York, N.Y.)*  
Wang, S., Klemperer, S. L.  
2026; 391 (6785): 611-615
- **Are Himalayan sub-Moho earthquakes in the petrological mantle?** *TECTONOPHYSICS*  
Song, X., Klemperer, S. L., Liang, X.  
2025; 917

- **Indian cratonic mantle beneath northern Qiangtang in eastern Tibet ca. 11 Ma** *GEOLOGY*  
Klemperer, S.  
2025; 53 (11): e588
- **The Indian Plate subducting below the Tibet Plateau is tearing apart** *COMMUNICATIONS EARTH & ENVIRONMENT*  
Liu, L., Shi, D., Klemperer, S. L.  
2025; 6 (1)
- **Numerical and Observational Study of  $S_n$ -To- $L_g$  Conversion Due To Crustal-Thickening: Implications for Identification of Continental Mantle Earthquakes** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Wang, S., Klemperer, S. L.  
2025; 130 (2)
- **Identification of Continental Mantle Earthquakes Using Regional Waves Propagating Into a Thinned Continental Crust** *GEOPHYSICAL RESEARCH LETTERS*  
Wang, S., Klemperer, S. L.  
2024; 51 (21)
- **Numerous Tibetan lower-crustal and upper-mantle earthquakes, detected by  $S_n$ / $L_g$  ratios, suggest crustal delamination or drip tectonics** *EARTH AND PLANETARY SCIENCE LETTERS*  
Song, X., Klemperer, S. L.  
2024; 626
- **Strong Variability in the Thermal Structure of Tibetan Lithosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Xia, B., Artemieva, I. M., Thybo, H., Klemperer, S. L.  
2023; 128 (3)
- **Assessment of a claimed ultra-low frequency electromagnetic (ULFEM) earthquake precursor** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Wang, C., Christman, L. E., Klemperer, S. L., Glen, J. M., McPhee, D. K., Chen, B.  
2022; 229 (3): 2081-2095
- **Limited underthrusting of India below Tibet:  $^3\text{He}/^4\text{He}$  analysis of thermal springs locates the mantle suture in continental collision.** *Proceedings of the National Academy of Sciences of the United States of America*  
Klemperer, S. L., Zhao, P., Whyte, C. J., Darrah, T. H., Crossey, L. J., Karlstrom, K. E., Liu, T., Winn, C., Hilton, D. R., Ding, L.  
2022; 119 (12): e2113877119
- **Tomographic Image of Shear Wave Structure of NE India Based on Analysis of Rayleigh Wave Data** *FRONTIERS IN EARTH SCIENCE*  
Kumar, A., Kumar, N., Mukhopadhyay, S., Klemperer, S. L.  
2021; 9
- **Love-wave normal modes discriminate between upper-mantle and crustal earthquakes: Simulation and demonstration in Tibet** *EARTH AND PLANETARY SCIENCE LETTERS*  
Wang, S., Klemperer, S. L.  
2021; 571
- **Electromagnetic Field Generated by an Earthquake Source Due to Motional Induction in 3D Stratified Media, and Application to 2008 M-w 6.1 Qingchuan Earthquake** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Zhao, J., Gao, Y., Tang, J., Klemperer, S. L., Wen, J., Chen, C., Chong, J.  
2021; 126 (10)
- **Western Gondwana imaged by S receiver-functions (SRF): New results on Moho, MLD (mid-lithospheric discontinuity) and LAB (lithosphere-asthenosphere boundary)** *GONDWANA RESEARCH*  
Liu, L., Klemperer, S. L., Blanchette, A. R.  
2021; 96: 206-218
- **Uplifted marine terraces on Santa Catalina Island, California, USA** *GEOLOGY*  
Castillo, C. M., Klemperer, S. L.  
2021; 49 (7): E529
- **Crustal-scale wedge tectonics at the narrow boundary between the Tibetan Plateau and Ordos block** *EARTH AND PLANETARY SCIENCE LETTERS*

- Tian, X., Bai, Z., Klemperer, S. L., Liang, X., Liu, Z., Wang, X., Yang, X., Wei, Y., Zhu, G.  
2021; 554
- **Post-critical SsPmp and its applications to virtual deep seismic sounding (VDSS)-3: back-projection imaging of the crust-mantle boundary in a heterogeneous lithosphere, theory and application** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Liu, T., Klemperer, S. L., Yu, C., Ning, J.  
2020; 223 (3): 2166–87
  - **Coseismic electric and magnetic signals observed during 2017 Jiuzhaigou M-w 6.5 earthquake and explained by electrokinetics and magnetometer rotation** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Gao, Y., Zhao, G., Chong, J., Klemperer, S. L., Han, B., Jiang, F., Wen, J., Chen, X., Zhan, Y., Tang, J., Xiao, Q., Wang, L.  
2020; 223 (2): 1130–43
  - **Localized foundering of Indian lower crust in the India-Tibet collision zone.** *Proceedings of the National Academy of Sciences of the United States of America*  
Shi, D., Klemperer, S. L., Shi, J., Wu, Z., Zhao, W.  
2020
  - **A Rapid Response Network to Record Aftershocks of the 2015 M 7.8 Gorkha Earthquake in Nepal** *SEISMOLOGICAL RESEARCH LETTERS*  
Karplus, M. S., Pant, M., Sapkota, S., Nabelek, J., Velasco, A. A., Adhikari, L., Ghosh, A., Klemperer, S. L., Kuna, V., Mendoza, M. M., Braunmiller, J.  
2020; 91 (4): 2399–2408
  - **Duplex in the Main Himalayan Thrust illuminated by aftershocks of the 2015 M-w 7.8 Gorkha earthquake** *NATURE GEOSCIENCE*  
Mendoza, M. M., Ghosh, A., Karplus, M. S., Klemperer, S. L., Sapkota, S. N., Adhikari, L. B., Velasco, A.  
2019; 12 (12): 1018–+
  - **Post-critical SsPmp and its applications to Virtual Deep Seismic Sounding (VDSS)-2: 1-D imaging of the crust/mantle and joint constraints with receiver functions** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Liu, T., Klemperer, S. L., Ferragut, G., Yu, C.  
2019; 219 (2): 1334–47
  - **Receiver-function imaging of the lithosphere at the Kunlun-Qaidam boundary, Northeast Tibet** *TECTONOPHYSICS*  
Karplus, M. S., Klemperer, S. L., Zhao, W., Kind, R., Wu, Z., Mechie, J., Shi, D., Brown, L. D., Chen, C., Su, H., Xue, G., Sandvol, E., Ni, et al  
2019; 759: 30–43
  - **Late Quaternary subsidence of Santa Catalina Island, California Continental Borderland, demonstrated by seismic-reflection data and fossil assemblages from submerged marine terraces** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*  
Castillo, C. M., Klemperer, S. L., Ingle, J. C., Powell, C. L., Legg, M. R., Francis, R. D.  
2019; 131 (1-2): 21–42
  - **Multi-stage evolution of the Ordos lithosphere from stochastic inversion of elevation, geoid, surface heat flow, Rayleigh wave dispersion data and magnetotelluric data** *Acta Geologica Sinica*  
Jones, A. G., Dong, H., Afonso, J. C., Wei, W., Klemperer, S. L., Liu, T.  
2019; 93 (5)
  - **Detection of a widespread mantle component of <sup>3</sup>He in thermal springs of Lhasa Block and Tethyan Himalaya, eastern Tibet: evidence for roll-back of the Indian-Asian mantle suture south of the Yarlung suture zone, and asthenospheric upwelling beneath the Lhasa block** *Acta Geologica Sinica*  
Klemperer, S., Zhao, P., Shi, D., Crossey, L. J., Karlstrom, K. E., Winn, C. L., Liu, T., Xiong, Z., Guo, X., Zeng, D., Wang, S., Darrah, T. H., Hilton, et al  
2019; 93 (5): 56–57
  - **Mantle#earthquake geothermometry of rejuvenated Proterozoic lithosphere, western Saudi Arabia** *Acta Geologica Sinica*  
Blanchette, A. R., Klemperer, S. L., Mooney, W. D., Zahran, H. M.  
2019; 93 (5): 102–103
  - **Deep#seated lithospheric geometry in revealing collapse of the Tibetan Plateau** *Acta Geologica Sinica#English Edition*  
Guo, X., Gao, R., Zhao, J., Xu, X., Lu, Z., Klemperer, S., Liu, H.  
2019; 93 (5): 66
  - **Deep#seated lithospheric geometry in revealing collapse of the Tibetan Plateau**  
Guo, X., Gao, R., Zhao, J., Xu, X., Lu, Z., Klemperer, S., Liu, H.

2019: 66

- **Lateral variation of the Main Himalayan Thrust controls the rupture length of the 2015 Gorkha earthquake in Nepal.** *Science advances*  
Bai, L. n., Klemperer, S. L., Mori, J. n., Karplus, M. S., Ding, L. n., Liu, H. n., Li, G. n., Song, B. n., Dhakal, S. n.  
2019; 5 (6): eaav0723
- **Post-critical SsPmp and its applications to Virtual Deep Seismic Sounding (VDSS)-1: sensitivity to lithospheric 1-D and 2-D structure** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Liu, T., Klemperer, S. L., Yu, C., Ning, J.  
2018; 215 (2): 880–94
- **Deep-seated lithospheric geometry in revealing collapse of the Tibetan Plateau** *EARTH-SCIENCE REVIEWS*  
Guo, X., Gao, R., Zhao, J., Xu, X., Lu, Z., Klemperer, S. L., Liu, H.  
2018; 185: 751–62
- **Two-stage Red Sea rifting inferred from mantle earthquakes in Neoproterozoic lithosphere** *EARTH AND PLANETARY SCIENCE LETTERS*  
Blanchette, A. R., Klemperer, S. L., Mooney, W. D., Zahran, H. M.  
2018; 497: 92–101
- **Cross-validation of independent ultra-low-frequency magnetic recording systems for active fault studies** *EARTH PLANETS AND SPACE*  
Wang, C., Bin, C., Christman, L. E., Glen, J. M. G., Klemperer, S. L., McPhee, D. K., Kappler, K. N., Bleier, T. E., Dunson, J.  
2018; 70
- **Cross-validation of independent ultra-low-frequency magnetic recording systems for active fault studies.** *Earth, planets, and space : EPS*  
Wang, C., Bin, C., Christman, L. E., Glen, J. M., Klemperer, S. L., McPhee, D. K., Kappler, K. N., Bleier, T. E., Dunson, J. C.  
2018; 70 (1): 57
- **Sycamore Knoll: A wave-planed pop-up structure in a sinistral-oblique thrust system, Southern California Continental Borderland** *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*  
Williams, E. F., Castillo, C. M., Klemperer, S. L., Raineault, N. A., Gee, L.  
2018; 150: 132–45
- **Seismostratigraphy of a submerged coastal transition zone: Precise determination of paleocoastal environments during the last glacial maximum from high-resolution 3D multichannel seismic** *SEG Technical Program Expanded Abstracts*  
Castillo, C. M., Klemperer, S.  
Society of Exploration Geophysicists..2018: 1599–1602
- **Nonuniform subduction of the Indian crust beneath the Himalayas** *SCIENTIFIC REPORTS*  
Guo, X., Li, W., Gao, R., Xu, X., Li, H., Huang, X., Ye, Z., Lu, Z., Klemperer, S. L.  
2017; 7: 12497
- **Crustal structure of the Ruby Mountains metamorphic core complex, Nevada, from passive seismic imaging** *GEOSPHERE*  
Litherland, M. M., Klemperer, S. L.  
2017; 13 (5): 1506–23
- **New Frontiers in Ocean Exploration The E/V Nautilus, NOAA Ship Okeanos Explorer, and R/V Falkor 2016 Field Season** *OCEANOGRAPHY*  
Bell, K. L., Mowitz, W., Zykov, V., Delgado, J. P., Tartt, M., Stout, M., Wagner, K., Marquis, S., Bell, K. L., Phillips, B., Becker, K., Licht, S., Ou, et al  
2017; 30 (1): 1-?
- **West-east transition from underplating to steep subduction in the India-Tibet collision zone revealed by receiver-function profiles** *EARTH AND PLANETARY SCIENCE LETTERS*  
Shi, D., Zhao, W., Klemperer, S. L., Wu, Z., Mechie, J., Shi, J., Xue, G., Su, H.  
2016; 452: 171-177
- **Crustal-scale duplexing beneath the Yarlung Zangbo suture in the western Himalaya** *NATURE GEOSCIENCE*  
Gao, R., Lu, Z., Klemperer, S. L., Wang, H., Dong, S., Li, W., Li, H.  
2016; 9 (7): 555-?
- **Rapid variation in upper-mantle rheology across the San Andreas fault system and Salton Trough, southernmost California, USA** *GEOLOGY*  
Barak, S., Klemperer, S. L.

2016; 44 (7): 575-578

- **3D imaging of subducting and fragmenting Indian continental lithosphere beneath southern and central Tibet using body-wave finite-frequency tomography** *EARTH AND PLANETARY SCIENCE LETTERS*  
Liang, X., Chen, Y., Tian, X., Chen, Y. J., Ni, J., Gallegos, A., Klemperer, S. L., Wang, M., Xu, T., Sung, C., Si, S., Lan, H., Teng, et al  
2016; 443: 162-175
- **Nautilus Samples Program** *OCEANOGRAPHY*  
Raineault, N. A., Bradt, L., Lubetkin, M., Carey, S., Kelley, K., Fisher, C. R., Castillo, C., Klemperer, S., Reisswig, H.  
2016; 29 (1): 14–17
- **Hidden intrabasin extension: Evidence for dike-fault interaction from magnetic, gravity, and seismic reflection data in Surprise Valley, northeastern California** *GEOSPHERE*  
Athens, N. D., Glen, J. M., Klemperer, S. L., Egger, A. E., Fontiveros, V. C.  
2016; 12 (1): 15-25
- **Weakly coupled lithospheric extension in southern Tibet** *EARTH AND PLANETARY SCIENCE LETTERS*  
Tian, X., Chen, Y., Tseng, T., Klemperer, S. L., Thybo, H., Liu, Z., Xu, T., Liang, X., Bai, Z., Zhang, X., Si, S., Sun, C., Lan, et al  
2015; 430: 171-177
- **San Andreas Fault dip, Peninsular Ranges mafic lower crust and partial melt in the Salton Trough, Southern California, from ambient-noise tomography** *GEOCHEMISTRY GEOPHYSICS GEOSYSTEMS*  
Barak, S., Klemperer, S. L., Lawrence, J. F.  
2015; 16 (11): 3946-3972
- **Receiver function imaging of crustal suture, steep subduction, and mantle wedge in the eastern India-Tibet continental collision zone** *EARTH AND PLANETARY SCIENCE LETTERS*  
Shi, D., Wu, Z., Klemperer, S. L., Zhao, W., Xue, G., Su, H.  
2015; 414: 6-15
- **Receiver-function imaging of overlapping Mohos at the Kunlun- Qaidam boundary, Northeast Tibet** *Geophysical Journal International*  
Karplus, M. S., Klemperer, S. L., Zhao, W., Kind, R., Wu, Z., Mechie, J., Shi, D., Brown, L. D., Chen, C., Su, H., Xue, G., Sandoval, E., Ni, et al  
2015
- **Hidden intra-basin extension: Evidence for dike-fault interaction from magnetic, gravity, and seismic reflection data in Surprise Valley, NE California.** *Geosphere*  
Athens, N., Glen, J., Klemperer, S. L., Egger, A., Fontiveros, V.  
2015
- **Receiver function imaging of crustal suture, steep subduction, and mantle wedge in the eastern India–Tibet continental collision zone.** *Earth and Planetary Science Letters*  
Shi, D., Wu, Z., Klemperer, S. L., Zhao, W., Xue, G., Su, H.  
2015; 414: 6-15
- **Weakly Coupled Lithospheric Extension in Southern Tibet** *Earth Planetary Science Letters*  
Tian, X., Chen, Y., Tseng, T., Klemperer, S. L., Thybo, H., Liu, Z., Xua, T., Liang, X., Bai, Z., Zhang, X., Si, S., Sun, C., Lan, et al  
2015
- **Zhongjie Zhang (1964-2013) Obituary** *TECTONOPHYSICS*  
Liu, E., Chen, Y., Yang, D., Badal, J., Klemperer, S.  
2014; 627: 4–5
- **Receiver Function Imaging of the Ruby Mountains Metamorphic Core Complex**  
Litherland, M., Klemperer, S. L.  
2014
- **Ambient Noise Tomography of Southern California Images Dipping San Andreas-Parallel Structure and Low-Velocity Salton Trough Mantle**  
Barak, S., Klemperer, S. L., Lawrence, J.  
2014
- **Geochemical Characterization and Geothermometry of Thermal Springs of Northwest India**

- Zamudio, K. D., Klemperer, S. L., Sastry, S., Harinarayana, T.  
2014
- **Crustal structure across northeastern Tibet from wide-angle seismic profiling: Constraints on the Caledonian Qilian orogeny and its reactivation** *TECTONOPHYSICS*  
Zhang, Z., Bai, Z., Klemperer, S. L., Tian, X., Xu, T., Chen, Y., Teng, J.  
2013; 606: 140-159
  - **Normal faulting from simple shear rifting in South Tibet, using evidence from passive seismic profiling across the Yadong-Gulu Rift** *TECTONOPHYSICS*  
Zhang, Z., Chen, Y., Yuan, X., Tian, X., Klemperer, S. L., Xu, T., Bai, Z., Zhang, H., Wu, J., Teng, J.  
2013; 606: 178-186
  - **Characterizing the Main Himalayan Thrust in the Garhwal Himalaya, India with receiver function CCP stacking** *EARTH AND PLANETARY SCIENCE LETTERS*  
Caldwell, W. B., Klemperer, S. L., Lawrence, J. F., Rai, S. S., Ashish  
2013; 367: 15-27
  - **Ambient-noise tomography of north Tibet limits geological terrane signature to upper-middle crust** *GEOPHYSICAL RESEARCH LETTERS*  
Karplus, M. S., Klemperer, S. L., Lawrence, J. F., Zhao, W., Mechie, J., Tilmann, F., Sandvol, E., Ni, J.  
2013; 40 (5): 808-813
  - **Mantle fluids in the Karakoram fault: Helium isotope evidence** *EARTH AND PLANETARY SCIENCE LETTERS*  
Klemperer, S. L., Kennedy, B. M., Sastry, S. R., Makovsky, Y., Harinarayana, T., Leech, M. L.  
2013; 366: 59-70
  - **Discontinuous electrical conductivity across the Yarlung Zangbo Suture, Southern Tibet, implies a barrier to channel flow** *Journal of Geophysical Research*  
Spratt, J. E., Jones, A. G., Klemperer, S. L., Wei, W., Team, I.  
2013
  - **Castillo, C.M., Francis, R.D., Klemperer, S.L., Legg, M.R. Miocene to Quaternary vertical motion of the Channel Islands: signatures of transform tectonics.**  
Castillo, C. M., Francis, R. D., Legg, M. R., Klemperer, S. L.  
2013
  - **Comments on "On the reported magnetic precursor of the 1989 Loma Prieta earthquake" by J. N. Thomas, J. J. Love, and M. J. S. Johnston** *Physics of the Earth and Planetary Interiors*  
Fraser-Smith, A. C., McPhee, D. K., Glen, J. M., Klemperer, S. L., McGill, P. R., Bernardi, A.  
2013
  - **Crustal structure across northeastern Tibet from wide-angle seismic profiling: Constraints on the Caledonian Qilian orogeny and its reactivation** *Tectonophysics*  
Zhang, Z., Bai, Z., Klemperer, S. L., Tian, X., Xu, T., Chen, Y., Teng, J.  
2013
  - **Normal faulting from simple shear rifting in South Tibet, using evidence from passive seismic profiling across the Yadong-Gulu Rift** *Tectonophysics*  
Zhang, Z., Chen, Y., Yuan, X., Tian, X., Klemperer, S. L., Xu, T., Bai, Z., Zhang, H., Wu, J., Teng, J.  
2013
  - **Crustal shear (S) velocity and Poisson's ratio structure along the INDEPTH IV profile in northeast Tibet as derived from wide-angle seismic data** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Mechie, J., Zhao, W., Karplus, M. S., Wu, Z., Meissner, R., Shi, D., Klemperer, S. L., Su, H., Kind, R., Xue, G., Brown, L. D.  
2012; 191 (2): 369-384
  - **A complex Tibetan upper mantle: A fragmented Indian slab and no south-verging subduction of Eurasian lithosphere** *EARTH AND PLANETARY SCIENCE LETTERS*  
Liang, X., Sandvol, E., Chen, Y. J., Hearn, T., Ni, J., Klemperer, S., Shen, Y., Tilmann, F.  
2012; 333: 101-111

- **Characterizing potential earthquake signals on the Stanford-USGS ultra-low frequency electromagnetic (ULFEM) array** *EOS Trans. AGU Abstract*  
Christman, L., Connor, D., McPhee, D. K., Glen, J. M., Klemperer, S. L.  
2012
- **Rapid lateral variation of seismic anisotropy across the Salton Trough, Southern California** *AGU 2012 Fall meeting, T51B-2576*  
Kinsella, A., Barak, S., Klemperer, S. L.  
2012
- **Repeated Mine Blasts Recorded on a Dense Broadband Array, Ruby Mountains, Nevada** *2012 Fall Meeting, AGU*  
Scheevel, C., Litherland, M., Klemperer, S. L.  
2012
- **SKS anisotropy on a dense broadband array over the Ruby Mountains Metamorphic Core Complex, Nevada** *EOS Trans, AGU, Abstract S23A-2530 presented at 2012 Fall Meeting, AGU, San Francisco, CA*  
Golos, E., Litherland, M., Klemperer, S. L.  
2012
- **Stanford-USGS Ultra-Low Frequency Electromagnetic Network: Magnetometer Calibration Developments** *Poster*  
Connor, D., Klemperer, S. L., Glen, J. M., McPhee, D. K.  
2012
- **SinoProbe Seismic Reflection Imaging of an Upper-Crustal "Bright Spot" Beneath the Karakoram Fault, West Tibet** *EOS Trans. AGU Abstract*  
Kelly, C. L., Lu, Z., Klemperer, S. L., Gao, R., Dong, S.  
2012
- **Crustal structure beneath the Sub-Himalayan fold-thrust belt, Kangra recess, northwest India, from seismic reflection profiling: Implications for Late Paleoproterozoic orogenesis and modern earthquake hazard** *EARTH AND PLANETARY SCIENCE LETTERS*  
Prasad, B. R., Klemperer, S. L., Rao, V. V., Tewari, H. C., Khare, P.  
2011; 308 (1-2): 218-228
- **Injection of Tibetan crust beneath the south Qaidam Basin: Evidence from INDEPTH IV wide-angle seismic data** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Karplus, M. S., Zhao, W., Klemperer, S. L., Wu, Z., Mechie, J., Shi, D., Brown, L. D., Chen, C.  
2011; 116
- **Crustal structure of the Paleozoic Kunlun orogeny from an active-source seismic profile between Moba and Guide in East Tibet, China** *GONDWANA RESEARCH*  
Zhang, Z., Klemperer, S., Bai, Z., Chen, Y., Teng, J.  
2011; 19 (4): 994-1007
- **ATV magnetometer systems for efficient ground magnetic surveying** *The Leading Edge*  
Athens, N. D., Glen, J. M. G., Morin, R. L., Klemperer, S. L.  
2011; 30: 394-398
- **Recruiting Undergraduates into the Earth Sciences Through Research** *CUR Quarterly (Journal of Council on Undergraduate Research)*  
Egger, A. E., Klemperer, S. L.  
2011; 32: 22-31
- **The northwestern margin of the Basin-and-Range Province, part 1: Reflection profiling of the moderate-angle (similar to 30 degrees) Surprise Valley Fault** *TECTONOPHYSICS*  
Lerch, D. W., Klemperer, S. L., Egger, A. E., Colgan, J. P., Miller, E. L.  
2010; 488 (1-4): 143-149
- **Crustal structure of the Tethyan Himalaya, southern Tibet: new constraints from old wide-angle seismic data** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Zhang, Z., Klemperer, S.  
2010; 181 (3): 1247-1260
- **Proceedings of the 25th Himalaya-Karakoram-Tibet Workshop** *U.S. Geological Survey Open-File Report 2010-1099*

edited by Leech, M. L., Klemperer, S. L., Mooney, W. D.  
2010

- **INDEPTH-IV seismic imaging of channel flow outwards from the Kunlun Mountains beneath the Qaidam Basin** *25th Himalaya-Karakoram-Tibet Workshop*  
Karplus, M. S., Klemperer, S. L., Zhao, W., Wu, Z., Brown, L. D., Shi, D., Mechie, J., Chen, C., Glen, J.  
edited by Leech, et al.,  
2010
- **HIMPROBE deep seismic reflection profiling of the Sub-Himalayan fold-thrust belt, NW India: images of a possible "Ulleri-Wangtu" Paleoproterozoic accretionary orogenic event** *25th Himalaya-Karakoram-Tibet Workshop*  
Klemperer, S. L., Prasad, B. R., Rao, V. V., Tewari, H. C., Khare, P.  
edited by Leech et al.  
2010
- **(Website Documentation) - Using ULF-EM (Ultra-Low Frequency Electromagnetic) to serve data to the public** *Open-File Report*  
Neumann, D. A., McPherson, S., Klemperer, S. L., Glen, J. G., McPhee, D. K., Kappler, K.  
U.S. Geological Survey.2010
- **Stanford-USGS Ultra-low frequency electromagnetic network: hardware developments in magnetometer calibration and recording** *2010 AGU, Fall Meeting*  
Bowden, D. C., Engelland-Gay, H., Enright, A., Gardner, J., Klemperer, S. L., McPhee, D. K., Glen, J. M.  
2010
- **Receiver function imaging in the western Himalaya**, *25th Himalaya-Karakoram-Tibet Workshop*  
Caldwell, W. B., Klemperer, S. L., Lawrence, J. F., Rai, S. S.  
edited by Leech et al.  
2010
- **SINOPROBE deep seismic reflection profiling across the Bangong-Nujiang Suture, central Tibet** *25th Himalaya-Karakoram-Tibet Workshop*,  
Gao, R., Lu, Z., Xiong, X., Zeng, L., Li, W., Deng, G., Klemperer, S. L.  
edited by Leech et al.  
2010
- **The Golmud Step; new details of the 15 km Moho offset between the Tibet Plateau and Qaidam Basin from INDEPTH IV seismic results** *25th Himalaya-Karakoram-Tibet Workshop*  
Chen, C., Brown, L. D., Karplus, M. S., Klemperer, S. L.  
edited by Leech et al.  
2010
- **Anatomy of a metamorphic core complex: preliminary results of Ruby Mountains seismic experiment, northeastern Nevada** *2010 AGU Fall Meeting*  
Schiltz, K. K., Litherland, M., Klemperer, S. L.  
2010
- **The Golmud Step; new details of the 15 km Moho offset between the Tibet Plateau and Qaidam Basin from INDEPTH IV seismic results** *25th Himalaya-Karakoram-Tibet Workshop*  
Chen, C., Brown, L. D., Karplus, M. S., Klemperer, S. L.  
edited by Leech et al.,  
2010
- **Partial melt in the upper-middle crust of the northwest Himalaya revealed by Rayleigh wave dispersion** *TECTONOPHYSICS*  
Caldwell, W. B., Klemperer, S. L., Rai, S. S., Lawrence, J. F.  
2009; 477 (1-2): 58-65
- **Low lower crustal velocity across Ethiopia: Is the Main Ethiopian Rift a narrow rift in a hot craton?** *GEOCHEMISTRY GEOPHYSICS GEOSYSTEMS*  
Keranen, K. M., Klemperer, S. L., Julia, J., Lawrence, J. F., Nyblade, A. A.  
2009; 10

- **Test of Deep Seismic Reflection Profiling across Central Uplift of Qiangtang Terrane in Tibetan Plateau** *JOURNAL OF EARTH SCIENCE*  
Lu Zhanwu, Z. W., Gao Rui, R., Li QiuSheng, Q. S., He Rizheng, R. Z., Kuang Chaoyang, C. Y., Hou Hesheng, H. S., Xiong Xiaosong, X. S., Guan Ye, Y., Wang Haiyan, H. Y., Klemperer, S. L.  
2009; 20 (2): 438-447
- **Temporal Changes in Apparent Resistivity on the Stanford-USGS Ultra-Low Frequency Electromagnetic Network** *EOS Trans AGU*  
Garber, J. H., Klemperer, S. L., McPhee, D. K., Glen, J. M.  
2009; 89 (52)
- **Nature of the crust beneath northwest Basin and Range province from teleseismic receiver function data** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Gashawbeza, E. M., Klemperer, S. L., Wilson, C. K., Miller, E. L.  
2008; 113 (B10)
- **Three-dimensional crustal structure of the Mariana island arc from seismic tomography** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Calvert, A. J., Klemperer, S. L., Takahashi, N., Kerr, B. C.  
2008; 113 (B1)
- **Discontinuous and diachronous evolution of the Main Ethiopian Rift: Implications for development of continental rifts** *EARTH AND PLANETARY SCIENCE LETTERS*  
Keranen, K., Klemperer, S. L.  
2008; 265 (1-2): 96-111
- **Integration of the NEES T-Rex vibrator and PASSCAL Texan recorders for seismic profiling of shallow and deep crustal targets** *SEISMOLOGICAL RESEARCH LETTERS*  
Lerch, D. W., Klemperer, S. L., Stokoe, K. H., Meng, F.  
2008; 79 (1): 41-46
- **Stanford-USGS Ultra-Low Frequency Electromagnetic Network: Status report and and data availability via the Web** *EOS Trans AGU*  
Neumann, D. A., McPherson, S., Kappler, K., Klemperer, S., Glen, J., McPhee, D.  
2008; 88 (52)
- **Reconciling lithospheric deformation and lower crustal flow beneath central Tibet** *Geology*  
Klemperer, S. L.  
2008; 36
- **Combining the PASSCAL and EarthScope Texan instrument pools for 3D and 3C imaging of the High Lava Plains, Oregon** *EOS Trans AGU*  
Cox, C. M., Keller, G. R., Harder, S., Klemperer, S., Team, H.  
2008; 88
- **Seismology across the northeastern edge of the Tibetan Plateau** *EOS, Transactions American Geophysical Union*  
Zhao, W., Brown, L., Wu, Z., Klemperer, S. L., Shi, D., Mechie, J., Su, H., Tilmann, F., Karplus, M., Makovsky, Y.  
2008; 89: 487
- **U.S. Passive Margins: Are we missing an important opportunity?** *Eos, Transactions American Geophysical Union*  
Stern, R. J., Klemperer, S. L.  
2008; 89: 64-65
- **Temporal geochemical variation in Ethiopian Lakes Shala, Arenguede, Awasa, and Beseka: Possible environmental impacts from underwater and borehole detonations** *JOURNAL OF AFRICAN EARTH SCIENCES*  
Klemperer, S. L., Cash, M. D.  
2007; 48 (2-3): 174-198
- **Crustal structure and evolution of the Mariana intra-oceanic island arc** *GEOLOGY*  
Takahashi, N., Kodaira, S., Klemperer, S. L., Tatsumi, Y., Kaneda, Y., Suyehiro, K.  
2007; 35 (3): 203-206
- **Seismoelectric imaging of shallow targets** *GEOPHYSICS*  
Haines, S. S., Pride, S. R., Klemperer, S. L., Biondi, B.

2007; 72 (2): G9-G20

- **Crustal structure of the northwestern Basin and Range province and its transition to unextended volcanic plateaus** *Geochemistry, Geophysics, Geosystems*  
Lerch, D. W., Klemperer, S. L., Glen, J. M. G., Ponce, D. A., Miller, E. L.  
2007; 8: 21
- **Seismic Anisotropy in the asthenosphere beneath the Eifel region, Western Germany** *Mantle plumes - A multidisciplinary approach*  
Walker, K. T., Bokelmann, G. R., Klemperer, S. L., Bock, G., the Eifel Plume Team  
edited by Ritter, J. R., Christensen, U. R.  
Springer-Verlag.2007: 439–496
- **Re-affirming the Magnetic Precursor to the 1989 Loma Prieta, CA, Earthquake Using Magnetic Field Data Collected in the US in 1989 and 1990** *EOS Trans AGU*  
Culp, D., Klemperer, S., Glen, J., McPhee, D.  
2007; 87 (52)
- **Modeling sideswipe in 2D oceanic seismic surveys from sonar data: Application to the Mariana arc** *11th International Symposium on Deep Seismic Profiling of the Continents and their Margins*  
Gunther, R. H., Klemperer, S. L., Goodliffe, A. M.  
ELSEVIER SCIENCE BV.2006: 333–43
- **Reply to comment by P.J. O'Brien on: "The onset of India-Asia continental collision: Early, steep subduction required by the timing of UHP metamorphism in the western Himalaya" by Mary L. Leech, S. Singh, A.K. Jain, Simon L. Klemperer and R.M. Manickavasagam, Earth Planetary Science Letters 234 (2005) 83-97** *EARTH AND PLANETARY SCIENCE LETTERS*  
Leech, M. L., Singh, S., Jain, A. K., Klemperer, S. L., Manickavasagam, R. M.  
2006; 245 (3-4): 817-820
- **Distributed Nubia-Somalia relative motion and dike intrusion in the Main Ethiopian Rift** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Bendick, R., McClusky, S., Bilham, R., Asfaw, L., Klemperer, S.  
2006; 165 (1): 303-310
- **Crustal flow in Tibet: geophysical evidence for the physical state of Tibetan lithosphere, and inferred patterns of active flow** *Conference on Channel Flow, Ductile Extrusion and Exhumation in Continental Collision Zones*  
Klemperer, S. L.  
GEOLOGICAL SOC PUBLISHING HOUSE.2006: 39–70
- **Data report: Seismic reflection surveys of the Emperor Seamounts: ODP Leg 197**  
Kerr, B. C., Scholl, D. W., Klemperer, S. L.  
edited by Duncan, R. A., Tarduno, J. A., Davies, T. A., Scholl, D. W.  
ODP.2006: 17 pp.
- **Relics of Closure of an ancient ocean basin** *Imaging Earth History beneath the Ocean Floor*  
Klemperer, S. L., Hobbs, R., Snyder, D.  
National Science Foundation.2006: 16
- **Memorial for Doug Nelson** *Channel Flow, Ductile Extrusion and Exhumation in Continental Collision Zones*  
Klemperer, S. L.  
edited by Law, R. D., Searle, M. P., Godin, L.  
Geological Society, London.2006: ii-iv
- **Crustal structure of the northern Main Ethiopian Rift from the EAGLE controlled-source survey; a snapshot of incipient lithospheric break-up** *International Conference on East African Rift Systems - Geodynamics, Resources and Environment*  
Maguire, P. K., Keller, G. R., Klemperer, S. L., Mackenzie, G. D., Keranen, K., Harder, S., O'Reilly, B., Thybo, H., Asfaw, L., Khan, M. A., Amha, M.  
GEOLOGICAL SOC PUBLISHING HOUSE.2006: 269–292
- **Distributed Nubia-Somalia relative motion and dike intrusion in the Main Ethiopian Rift** *Geophysical Journal International*  
Bendick, R., McClusky, S., Bilham, R., Asfaw, L., Klemperer, S. L.  
2006
- **Shear-wave splitting around the Eifel hotspot: evidence for a mantle upwelling** *GEOPHYSICAL JOURNAL INTERNATIONAL*

- Walker, K. T., Bokelmann, G. H., Klemperer, S. L., Bock, G.  
2005; 163 (3): 962-980
- **West-east variation in crustal thickness in northern Lhasa block, central Tibet, from deep seismic sounding data** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Zhang, Z. J., Klemperer, S. L.  
2005; 110 (B9)
  - **Seismic stratigraphy of Detroit Seamount, Hawaiian-Emperor seamount chain: Post-hot-spot shield-building volcanism and deposition of the Meiji drift** *GEOCHEMISTRY GEOPHYSICS GEOSYSTEMS*  
Kerr, B. C., Scholl, D. W., Klemperer, S. L.  
2005; 6
  - **Using seismic sensors to detect elephants and other large mammals: a potential census technique** *JOURNAL OF APPLIED ECOLOGY*  
Wood, J. D., O'Connell-Rodwell, C. E., Klemperer, S. L.  
2005; 42 (3): 587-594
  - **The onset of India-Asia continental collision: Early, steep subduction required by the timing of UHP metamorphism in the western Himalaya** *EARTH AND PLANETARY SCIENCE LETTERS*  
Leech, M. L., Singh, S., Jain, A. K., Klemperer, S. L., Manickavasagam, R. M.  
2005; 234 (1-2): 83-97
  - **Ultra-low Frequency Electromagnetic Monitoring of Earthquakes in the San Francisco Bay Area: Initial Results of an Earthscope PBO Project** *EOS Trans AGU*  
Bijoor, S., Glen, J., McPhee, D. K., Klemperer, S. L.  
2005; 86 (52)
  - **Shear wave splitting around hotspots: Evidence for upwelling-related mantle flow?** *PLATES, PLUMES AND PARADIGMS*  
Walker, K. T., Bokelmann, G. H. R., Klemperer, S. L., Nyblade, A., Anderson, D.  
edited by Foulger, G. R., Natland, J. H., Presnall, D. C.  
2005; 388
  - **Shear-wave splitting around hotspots: evidence for upwelling-related mantle flow?** *Plates, Plumes and Paradigms*  
Walker, K. T., Bokelmann, G. R., Klemperer, S. L., Nyblade, A. A.  
edited by Foulger, G. R., Natland, H., Presnall, D. C., Anderson, C. L.  
Geological Society of America.2005: 171-192
  - **Three-dimensional seismic imaging of a protoridge axis in the Main Ethiopian rift** *GEOLOGY*  
Keranen, K., Klemperer, S. L., Gloaguen, R.  
2004; 32 (11): 949-952
  - **Shear-wave splitting in Ethiopia: Precambrian mantle anisotropy locally modified by Neogene rifting** *GEOPHYSICAL RESEARCH LETTERS*  
Gashawbeza, E. M., Klemperer, S. L., Nyblade, A. A., Walker, K. T., Keranen, K. M.  
2004; 31 (18)
  - **On the relationship between extension and anisotropy: Constraints from shear wave splitting across the East African Plateau** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Walker, K. T., Nyblade, A. A., Klemperer, S. L., Bokelmann, G. H., Owens, T. J.  
2004; 109 (B8)
  - **Seismic waves from elephant vocalizations: A possible communication mode?** *GEOPHYSICAL RESEARCH LETTERS*  
Gunther, R. H., O'Connell-Rodwell, C. E., Klemperer, S. L.  
2004; 31 (11)
  - **Crustal structure of seismic velocity in southern Tibet and east-westward escape of the crustal material - An example by wide-angle seismic profile from Peigu Tso to Pumoyong Tso** *SCIENCE IN CHINA SERIES D-EARTH SCIENCES*  
Zhang, Z. J., Teng, J. W., Li, Y. K., Klemperer, S., Yang, L. Q.  
2004; 47 (6): 500-506
  - **Shear-wave splitting beneath the Snake River Plain suggests a mantle upwelling beneath eastern Nevada, USA** *EARTH AND PLANETARY SCIENCE LETTERS*

- Walker, K. T., Bokelmann, G. H., Klemperer, S. L.  
2004; 222 (2): 529-542
- **Detection of southward intracontinental subduction of Tibetan lithosphere along the Bangong-Nujiang suture by P-to-S converted waves** *GEOLOGY*  
Shi, D., Zhao, W. J., Brown, L., Nelson, D., Zhao, X., Kind, R., Ni, J., Xiong, J. Y., Mechie, J., Guo, J., Klemperer, S., Hearn, T.  
2004; 32 (3): 209-212
  - **Deep reflection surveying in central Tibet: lower-crustal layering and crustal flow** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Ross, A. R., Brown, L. D., Pananont, P., Nelson, K. D., Klemperer, S., Haines, S., Zhao, W. J., Guo, J. R.  
2004; 156 (1): 115-128
  - **Geochemical survey of lake and stream waters in central Ethiopia: no environmental impact from borehole explosions or large underwater explosions in Lakes Arenguede and Shala** *International Conference on the East African Rift System*  
Cash, M. D., Klemperer, S. L., Mengistou, S., Yirgu (ed.), G., Ebinger (ed.), C., Mulugeta (ed.), G.  
2004: 40–44
  - **Evidence for crustal structure influence on the evolution of the Main Ethiopian Rift** *International Conference on the East African Rift System*  
Mackenzie, G. D., Thybo, H., Maguire, P. H., Ebinger, C. J., Working, E. ., Yirgu (ed.), G., Ebinger (ed.), C., Mulugeta (ed.), G.  
2004: 130-133
  - **Shear-wave splitting in Ethiopia: Precambrian mantle anisotropy slightly modified by Neogene rifting** *International Conference on the East African Rift System*  
Gashawbeza, E. M., Klemperer, S. L., Nyblade, A. A., Walker, K. T., Keranen, K. M., Yirgu (ed.), G., Ebinger (ed.), C., Mulugeta (ed.), G.  
2004: 75–79
  - **EAGLE: The controlled source seismic project** *International Conference on the East African Rift System*  
Maguire, P. H., Amha, M., Asfaw, L., Ebinger, C. J., Gashewbeza, E., Harder, S., Keller, G. R., Keranen, K., Khan, M. A., Klemperer, S. L., Mackenzie, G. D., Mariita, N., Mickus, et al  
2004: 134–38
  - **Seismic ground-velocity prediction based on shot distance, shot size, and shotpoint site environment in Ethiopia (EAGLE Project)** *International Conference on the East African Rift System*  
Les, A., Keranen, K. M., Klemperer, S. L., Khan, M. A., Maguire, P. H.  
2004
  - **A preliminary analysis of crustal structure variations along the Ethiopian Rift** *International Conference on the East African Rift System*  
Keller, G.R., , G. R., Harder, S.H., , S. H., O'Reilly, B. , B., Mickus, K., , K., Tadesse, K., , K., Maguire, P.K.H., and , P. H., Group, E. W., et al  
2004: 97–101
  - **3D seismic imaging of a proto-ridge axis in the Main Ethiopian Rift** *International Conference on the East African Rift System, June 20-24 2004, publ. ., pp.*  
Keranen, K., , K., Klemperer, S.L., , S. L., Group, E. W., Yirgu (ed.), G., Ebinger (ed.), C., Mulugeta (ed.), G.  
2004: 102–6
  - **The life cycle of continental rifting as a focus for US-African scientific collaboration** *EOS, Transactions American Geophysical Union*  
Abdelsalam, M. G., Atekwana, E. A., Keller, G. R., Klemperer, S. L.  
2004; 85
  - **Three-dimensional seismic imaging of a proto-ridge axis in the Main Ethiopian Rift** *Geology*  
Keranen, K., Klemperer, S. L., Gloaguen, R., the EAGLE Working Group  
2004; 32: 949-952
  - **Shear-wave splitting reveals mantle upwelling beneath eastern Nevada** *Earth Planetary Science Letters*  
Walker, K. T., Bokelmann, G. H. R., Klemperer, S. L.  
2004; 222: 529-542
  - **Tectonic Evolution of the Bristol Bay basin, southeast Bering Sea: Constraints from seismic reflection and potential field data** *TECTONICS*  
Walker, K. T., McGeary, S. E., Klemperer, S. L.  
2003; 22 (5)

- **Reply to "Shear-wave splitting to test mantle deformation models around Hawaii" by Vinnik et al.** *GEOPHYSICAL RESEARCH LETTERS*  
Walker, K. T., Bokelmann, G. H., Klemperer, S. L.  
2003; 30 (13)
- **Seismic imaging of the downwelling Indian lithosphere beneath central Tibet** *SCIENCE*  
Tilmann, F., Ni, J., Hearn, T., Ma, Y. S., Rapine, R., Kind, R., Mechie, J., Saul, J., Haines, S., Klemperer, S., Brown, L., Pananont, P., Ross, et al  
2003; 300 (5624): 1424-1427
- **Crustal structure and exhumation of the Dabie Shan ultrahigh-pressure orogen, eastern China, from seismic reflection profiling** *GEOLOGY*  
Yuan, X. C., Klemperer, S. L., Teng, W. B., Liu, L. X., Chetwin, E.  
2003; 31 (5): 435-438
- **INDEPTH III seismic data: From surface observations to deep crustal processes in Tibet** *TECTONICS*  
Haines, S. S., Klemperer, S. L., Brown, L., Jingru, G. R., Mechie, J., Meissner, R., Ross, A., Zhao, W. J.  
2003; 22 (1)
- **'Subduction-Factory' meeting studies Izu-Bonin-Mariana margin** *EOS, Transactions American Geophysical Union*  
Gill, J., Klemperer, S., Stern, R., Tamura, Y., Wiens, D.  
2003; 84: 3-7
- **Measuring the seismic properties of Tibetan bright-spots: free aqueous fluids in the Tibetan middle crust (in Chinese)** *The deep structure of the Himalaya and the Yarlung-Zangbo River Suture Zone*  
Makovsky, Y., Klemperer, S. L.  
edited by Zhao, et al.  
Geophysical Publishing House, Beijing.2003: 221–258
- **The George A. Thompson Volume: The Lithosphere of Western North America and its Geophysical Characterization** *Geological Society of America, International Book Series*  
edited by Klemperer, S. L., Ernst, W. G.  
Geological Society of America.2003; 7 (544pp.)
- **Preface** *The George A. Thompson Volume: The Lithosphere of Western North America and its Geophysical Characterization*  
Klemperer, S. L., Ernst, W. G.  
edited by Klemperer, S. L., Ernst, W. G.  
Geological Society of America.2003: 1–2
- **The deep structure of the Himalaya and the Yarlung-Zangbo River Suture Zone**  
edited by Zhao, W. J., Nelson, D., Brown, L., Kuo, J., Martyn, J., Meissner, R., Klemperer, S., Jones, A.  
Geophysical Publishing House, Beijing..2003
- **An Overview of the Izu-Bonin-Mariana Subduction Factory** *Inside the Subduction Factory*  
Stern, R. J., Fouch, M. J., Klemperer, S. L.  
edited by Eiler, J., Hirschmann, M.  
American Geophysical Union.2003: 175–222
- **Reply to Comment on "Crustal structure and exhumation of the Dabie Shan ultrahigh-pressure orogen, eastern China, from seismic reflection profiling" by Z.Y. Zhao and A.M. Fang** *Geology*  
Yuan, X.-C., Klemperer, S. L., W.-B., Teng, L.-X., Liu, Chetwin, E. M.  
2003; 31
- **Geophysical Project in Ethiopia Studies Continental Breakup** *EOS, Transactions American Geophysical Union*  
Maguire, P. K. H., Ebinger, C. J., Stuart, G. W., Mackenzie, G. D., Whaler, K. A., Kendall, J.-M., Khan, M. A., Fowler, C. M. R., Klemperer, S. L., Keller, G. R., Furman, T., Mickus, K., Asfaw, et al  
2003; 84: 342-343
- **Observation of a Rayleigh wave induced by infrasonic elephant vocalizations: a possible communication mode?** *EOS, Transactions American Geophysical Union*  
Gunther, R. H., O'Connell-Rodwell, C. E., Klemperer, S. L., Rodwell, T. C., Haines, S., Goldman, M., Evans, J. R.  
2003; 84

- **Deep seismic profiling across the Mariana arc-backarc system** *Deep Sea Research*  
Takahashi, N., Kodaira, S., Ito, A., Shiobara, H., Sugioka, H., Kerr, B., Vlad, I., Klemperer, S., Kaneda, Y., Suyehiro, K.  
2003; 23: 55-68
- **Seismic imaging of the downwelling Indian lithosphere Beneath central Tibet** *Science*  
Tilmann, F., Ni, J., Team, I.  
2003; 300: 1424-1427
- **Ultra-low frequency electromagnetic measurements associated with the 1998 M-w 5.1 San Juan Bautista, California earthquake and implications for mechanisms of electromagnetic earthquake precursors** *TECTONOPHYSICS*  
Karakelian, D., Klemperer, S. L., Fraser-Smith, A. C., Thompson, G. A.  
2002; 359 (1-2): 65-79
- **East-west crustal structure and "down-bowing" Moho under the northern Tibet revealed by wide-angle seismic profile** *SCIENCE IN CHINA SERIES D-EARTH SCIENCES*  
Zhang, Z. J., Li, Y. K., Wang, G. J., Teng, J. W., Klemperer, S., Li, J. W., Fan, J. Y., Chen, Y.  
2002; 45 (6): 550-558
- **Analysis of ultralow-frequency electromagnetic field measurements associated with the 1999 M 7.1 Hector Mine, California, earthquake sequence** *BULLETIN OF THE SEISMOLOGICAL SOCIETY OF AMERICA*  
Karakelian, D., Beroza, G. C., Klemperer, S. L., Fraser-Smith, A. C.  
2002; 92 (4): 1513-1524
- **Low-fold, ultra-deep MCS Profiling of the Mariana Arc** *EOS Trans AGU*  
Tidwell, T., Klemperer, S. L., Kerr, B. C., Goodliffe, A. M.  
2002; 83
- **Tectonic Evolution of the Bering Shelf-Chukchi Sea-Arctic Margin and Adjacent Landmasses.** *Geological Society of America Special Paper*  
edited by Miller, E. L., Grantz, A., Klemperer, S. L.  
Geological Society of America.2002; 360 (pp. 1-387)
- **Characteristics of volcanic rifted margins** *Magmatic Rifted Margins*  
Menzies, M., Klemperer, S. L., Ebinger, C. J., Baker, J. M.  
edited by Menzies, A., Klemperer, S. L., Ebinger, C., Baker, J.  
Geological Society of America .2002: 1–14
- **Geographic Information Systems (GIS) compilation of geologic and tectonic data for the Bering Shelf, Chukchi Sea, Arctic Margin and adjacent landmasses** *Tectonic evolution of the Bering Shelf-Chukchi Sea-Arctic Margin and Adjacent Landmasses*  
Klemperer, S. L., Greninger, M., Nokleberg, W.  
edited by Miller, E. L., Grantz, A., Klemperer, S. L.  
Geological Society of America.2002: 359–374
- **Crustal structure of the Bering and Chukchi Shelves: deep seismic reflection profiles across the North American continent between Alaska and Russia** *Tectonic Evolution of the Bering Shelf-Chukchi Sea-Arctic Margin and Adjacent Landmasses*  
Klemperer, S. L., Miller, E. L., Grantz, A., Scholl, D. W., Bering-Chukchi Working Group  
edited by Miller, E. L., Grantz, A., Klemperer, S. L.  
Geological Society of America.2002: 1–24
- **Crustal structure across the Bering Strait, Alaska: onshore recordings of a marine seismic survey.** *Tectonic Evolution of the Bering Shelf-Chukchi Sea-Arctic Margin and Adjacent Landmasses*  
Wolf, L. W., McCaleb, R. C., Stone, D. B., Brocher, T. M., Fujita, K., Klemperer, S. L.  
edited by Miller, E. L., Grantz, A., Klemperer, S. L.  
Geological Society of America.2002: 25–37
- **Preface** *Tectonic Evolution of the Bering Shelf-Chukchi Sea-Arctic Margin and Adjacent Landmasses*  
Miller, E. L., Grantz, A., Klemperer, S. L.  
edited by Miller, E. L., Grantz, A., Klemperer, S. L.  
Geological Society of America.2002: v-ix

- **Preface *Magmatic Rifted Margins***  
Menzies, M. A., Klemperer, S. L., Ebinger, C. J., Baker, J.  
edited by Menzies, M. A., Klemperer, S. L., Ebinger, C., Baker, J.  
Geological Society of America .2002: v-vi
- **Magmatic Rifted Margins *Geological Society of America Special Paper***  
Baker, J.  
edited by Menzies, M. A., Klemperer, S. L., Ebinger, C.  
Geological Society of America.2002; 362 (230 pp.)
- **Geologic structure of Bering and Chukchi shelves adjacent to Bering-Chukchi deep seismic transect and tectonostratigraphic terranes of adjacent landmasses. Scale 1:3,000,000, 1 sheet *Tectonic Evolution of the Bering Shelf-Chukchi Sea-Arctic Margin and Adjacent Landmasses***  
Grantz, A., Scholl, D. B., Toro, J., Klemperer L  
edited by Miller, E. L., Grantz, A., Klemperer, S. L.  
Geological Society of America.2002
- **Constraints on the age of formation of seismically reflective middle and lower crust beneath the Bering Shelf: SHRIMP zircon dating of xenoliths from Saint Lawrence Island *Tectonic Evolution of the Bering Shelf-Chukchi Sea-Arctic Margin and Adjacent Landmasses***  
Miller, E. L., Ireland, T., Klemperer, S. L., Wirth, K. R., Akinin, V. V., Brocher, T. M.  
edited by Miller, E. L., Grantz, A., Klemperer, S. L.  
Geological Society of America.2002: 195–208
- **Effect of Seafloor Topography on MCS Reflection Images and OBS Locations in the Mariana Subduction Factory Seismic Experiment *EOS, Transactions American Geophysical Union***  
Gunther, R. H., Klemperer, S. L., Goodliffe, A. M., Kerr, B. C.  
2002; 83 (47)
- **Shear-wave splitting to test mantle deformation models around Hawaii *GEOPHYSICAL RESEARCH LETTERS***  
Walker, K. T., Bokelmann, G. H., Klemperer, S. L.  
2001; 28 (22): 4319-4322
- **Crustal structure of central Tibet as derived from project INDEPTH wide-angle seismic data *GEOPHYSICAL JOURNAL INTERNATIONAL***  
Zhao, W., Mechie, J., Brown, L. D., Guo, J., Haines, S., Hearn, T., Klemperer, S. L., Ma, Y. S., Meissner, R., Nelson, K. D., Ni, J. F., Pananont, P., Rapine, et al  
2001; 145 (2): 486-498
- **Vertical extent of the newborn San Andreas fault at the Mendocino triple junction *GEOLOGY***  
Hole, J. A., Beaudoin, B. C., Klemperer, S. L.  
2000; 28 (12): 1111-1114
- **CDP mapping to obtain the fine structure of the crust and upper mantle from seismic sounding data: an example for the southeastern China *Symposium on Developments in Imaging and Seismic Tomography of the Lithosphere-Asthenosphere System***  
Zhang, Z. J., Wang, G. J., Teng, J. W., Klemperer, S.  
ELSEVIER SCIENCE BV.2000: 133–46
- **Crustal structure transition from oceanic arc to continental arc, eastern Aleutian Islands and Alaska Peninsula *EARTH AND PLANETARY SCIENCE LETTERS***  
Fliedner, M. M., Klemperer, S. L.  
2000; 179 (3-4): 567-579
- **Three-dimensional seismic velocity structure of the San Francisco Bay area *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH***  
Hole, J. A., Brocher, T. M., Klemperer, S. L., Parsons, T., Benz, H. M., Furlong, K. P.  
2000; 105 (B6): 13859-13873
- **Three-dimensional seismic model of the Sierra Nevada arc, California, and its implications for crustal and upper mantle composition *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH***  
Fliedner, M. M., Klemperer, S. L., Christensen, N. I.  
2000; 105 (B5): 10899-10921

- **A transportable system for monitoring ultra low frequency electromagnetic signals associated with earthquakes** *Seismological Research Letters*  
Karakelian, D., Klemperer, S. L., Beroza, G. C., Fraser-Smith, A. C.  
2000; 71: 423-436
- **Results from electromagnetic monitoring of the Mw 5.1 San Juan Bautista, California earthquake of 12 August 1998** *3rd Conference on Tectonic Problems of the San Andreas fault system*  
Karakelian, D., Klemperer, S. L., Bokelmann, G., Kovach, R. L., Thompson, G. A., Fraser-Smith, A. C.  
2000: 334-46
- **Volcanic rifted margins** *GSA Today*  
Menzies, M. A., Ebinger, C., Klemperer, S. L.  
2000; 10: 8-11
- **Midcrustal reflector on INDEPTH wide-angle profiles: An ophiolitic slab beneath the India-Asia suture in southern Tibet?** *TECTONICS*  
Makovsky, Y., Klemperer, S. L., Ratschbacher, L., Alsdorf, D.  
1999; 18 (5): 793-808
- **Measuring the seismic properties of Tibetan bright spots: Evidence for free aqueous fluids in the Tibetan middle crust** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Makovsky, Y., Klemperer, S. L.  
1999; 104 (B5): 10795-10825
- **Structure of an island-arc: Wide-angle seismic studies in the eastern Aleutian Islands, Alaska** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Fliedner, M. M., Klemperer, S. L.  
1999; 104 (B5): 10667-10694
- **Geographic Information Systems (GIS) compilation of geophysical, geologic, and tectonic data for the circum-north Pacific** *USGS Open-File report 99-422, version 1.0 (CD-ROM)*  
Greninger, M. L., Klemperer, S. L., Nokelberg, W. J.  
1999
- **INDEPTH wide-angle profiling traces mid-crustal reflector: an ophiolitic slab beneath the India-Asia suture in southern Tibet?** *Tectonics*  
Makovsky, Y., Klemperer, S. L., Ratschbacher, L., Alsdorf, D.  
1999; 18: 793-808
- **Location of the southern edge of the Gorda slab and evidence for an adjacent asthenospheric window: Results from seismic profiling and gravity** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Beaudoin, B. C., Hole, J. A., Klemperer, S. L., Trehu, A. M.  
1998; 103 (B12): 30101-30115
- **INDEPTH (International Deep Profiling of Tibet and the Himalaya) multichannel seismic reflection data: Description and availability** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Alsdorf, D., Makovsky, Y., Zhao, W., Brown, L. D., Nelson, K. D., Klemperer, S., Hauck, M., Ross, A., Cogan, M., Clark, M., Che, J., Kuo, J.  
1998; 103 (B11): 26993-?
- **Evolution of the Gorda Escarpment, San Andreas fault and Mendocino triple junction from multichannel seismic data collected across the northern Vizcaino block, offshore northern California** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Godfrey, N. J., Meltzer, A. S., Klemperer, S. L., Trehu, A. M., Leitner, B., Clarke, S. H., Ondrus, A.  
1998; 103 (B10): 23813-23825
- **Crustal deformation of the Lhasa terrane, Tibet plateau from Project INDEPTH deep seismic reflection profiles** *TECTONICS*  
Alsdorf, D., Brown, L., Nelson, K. D., Makovsky, Y., Klemperer, S., Zhao, W. J.  
1998; 17 (4): 501-519
- **Ophiolitic basement to a forearc basin and implications for continental growth: The Coast Range Great Valley ophiolite, California** *TECTONICS*  
Godfrey, N. J., Klemperer, S. L.  
1998; 17 (4): 558-570

- **Special issue - Deep seismic profiling of the continents, I: General results and new methods - Preface** *TECTONOPHYSICS*  
Klemperer, S. L., Mooney, W. D.  
1998; 286 (1-4): IX-XIV
- **Fluids in the lower crust following Mendocino triple junction migration: Active basaltic intrusion?** *GEOLOGY*  
Levander, A., Henstock, T. J., Meltzer, A. S., Beaudoin, B. C., Trehu, A. M., Klemperer, S. L.  
1998; 26 (2): 171-174
- **Deep Seismic Profiling of the Continents: A Global Survey** *Tectonophysics*  
Klemperer (ed.), S. L., Mooney (ed.), W. D.  
1998; 287: 292
- **Earth Sciences Research at Norwegian Universities and Colleges: A Review** *Volume 1: Assessments, recommendations and conclusions prepared by the Review Committee*  
Stephansson, O. A., Berger, G., Furnes, H. C., Klemperer, S., Middleton, G., Porter, S.  
Research Council of Norway, Oslo, Norway. 1998: 74
- **Dedication. Drummond Hoyle Matthews, F.R.S., 5 February 1931 - 20 July 1997** *Tectonophysics*  
Klemperer, S. L.  
1998; 286: vii
- **Program focuses attention on continental margins** *EOS, Transactions of the American Geophysical Union*  
Taylor, B., Coffin, M., Dietrich, W., Dixon, T., Driscoll, N., Karner, G., Klemperer, S., Kohlstedt, D., Moore, C., Nittrouer, C., Plank, T., Sawyer, D., Stern, et al  
1998; 79: 137,142
- **Ophiolitic basement to the Great Valley forearc basin, California, from seismic and gravity data: Implications for crustal growth at the North American continental margin** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*  
Godfrey, N. J., Beaudoin, B. C., Klemperer, S. L.  
1997; 109 (12): 1536-1562
- **Modeling low-frequency magnetic-field precursors to the Loma Prieta earthquake with a precursory increase in fault-zone conductivity** *PURE AND APPLIED GEOPHYSICS*  
Merzer, M., Klemperer, S. L.  
1997; 150 (2): 217-248
- **INDEPTH wide-angle reflection observation of P-wave-to-S-wave conversion from crustal bright spots in Tibet** *SCIENCE*  
Makovsky, Y., Klemperer, S. L., Ratschbacher, L., Brown, L. D., Li, M., Zhao, W. J., Meng, F. L.  
1996; 274 (5293): 1690-1691
- **Partially Molten Middle Crust Beneath Southern Tibet: Synthesis of Project INDEPTH Results** *Science (New York, N.Y.)*  
Nelson, K. D., Zhao, W., Brown, L. D., Kuo, J., Che, J., Liu, X., Klemperer, S. L., Makovsky, Y., Meissner, R., Mechie, J., Kind, R., Wenzel, F., Ni, et al  
1996; 274 (5293): 1684-8
- **Structural elements of the southern Tethyan Himalaya crust from wide-angle seismic data** *TECTONICS*  
Makovsky, Y., Klemperer, S. L., Huang, L. Y., Lu, D. Y.  
1996; 15 (5): 997-1005
- **Three-dimensional crustal structure of the southern Sierra Nevada from seismic fan profiles and gravity modeling** *GEOLOGY*  
Fliedner, M. M., Ruppert, S., Malin, P. E., Park, S. K., Jiracek, G., Phinney, R. A., Saleeby, J. B., Wernicke, B., Clayton, R., Keller, R., Miller, K., Jones, C., Luetgert, et al  
1996; 24 (4): 367-370
- **Transition from slab to slabless: Results from the 1993 Mendocino triple junction seismic experiment** *GEOLOGY*  
Beaudoin, B. C., Godfrey, N. J., Klemperer, S. L., Lendl, C., Trehu, A. M., Henstock, T. J., Levander, A., Holl, J. E., Meltzer, A. S., Luetgert, J. H., Mooney, W. D.  
1996; 24 (3): 195-199
- **Seismic reflections from the near-vertical San Andreas Fault** *GEOPHYSICAL RESEARCH LETTERS*  
Hole, J. A., Thybo, H., Klemperer, S. L.

1996; 23 (3): 237-240

- **Origin of high mountains in the continents: The southern Sierra Nevada** *SCIENCE*  
Wernicke, B., Clayton, R., Ducea, M., Jones, C. H., Park, S., Ruppert, S., Saleeby, J., Snow, J. K., Squires, L., Fliedner, M., Jiracek, G., Keller, R., Klemperer, et al  
1996; 271 (5246): 190-193
- **SEISMIC EVIDENCE FOR A LOWER-CRUSTAL DETACHMENT BENEATH SAN-FRANCISCO BAY, CALIFORNIA** *SCIENCE*  
Brocher, T. M., McCarthy, J., Hart, P. E., Holbrook, W. S., Furlong, K. P., MCEVILLY, T. V., Hole, J. A., Klemperer, S. L.  
1994; 265 (5177): 1436-1439
- **DELINEATION AND CHARACTER OF THE ARCHEAN-PROTEROZOIC BOUNDARY IN NORTHERN SWEDEN** *PRECAMBRIAN RESEARCH*  
Ohlander, B., Skiold, T., Elming, S. A., Claesson, S., NISCA, D. H., Jensen, T. D., Hobbs, R. W., Klemperer, S. L., MATTHEWS, D. H., Snyder, D. B., Long, R., Matthews, T., Blundell, et al  
1993; 64 (1-4): 67-84
- **INTEGRATED SEISMIC STUDIES OF THE BALTIC SHIELD USING DATA IN THE GULF OF BOTHNIA REGION** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Hobbs, R. W., Klemperer, S. L., MATTHEWS, D. H., Snyder, D. B., Long, R., Matthews, T., Graham, D., Blundell, D. J., SCOTTROBINSON, R., Lund, C. E., Palm, H., Pedersen, L. B., Roberts, et al  
1993; 112 (3): 305-324
- **DEEP SEISMIC-REFLECTION REFRACTION INTERPRETATION OF CRUSTAL STRUCTURE ALONG BABEL PROFILE-A AND PROFILE-B IN THE SOUTHERN BALTIC SEA** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
Thybo, H., Berthelsen, A., Balling, N., Normark, E., DAHLJENSEN, T., Heikkinen, P., Korhonen, H., Luosto, U., Hjelt, S. E., Komminaho, K., Yliniemi, J., Dickmann, T., Flueh, et al  
1993; 112 (3): 325-?
- **Deep seismic reflection evidence for continental underthrusting beneath southern Tibet** *Nature*  
Zhao, W., Nelson, K. D., Team, P.  
1993; 366: 557-559
- **DEEP-STRUCTURE OF SOUTHERN IRELAND - A NEW GEOLOGICAL SYNTHESIS USING BIRPS DEEP REFLECTION PROFILING** *JOURNAL OF THE GEOLOGICAL SOCIETY*  
Ford, M., Klemperer, S. L., Ryan, P. D.  
1992; 149: 915-922
- **DEEP CRUSTAL PROBING - INTRODUCTION** *PRECAMBRIAN RESEARCH*  
Klemperer, S. L.  
1992; 55 (1-4): 169-172
- **HIGH ELECTRICAL-CONDUCTIVITY IN A MODEL LOWER CRUST WITH UNCONNECTED, CONDUCTIVE, SEISMICALLY REFLECTIVE LAYERS** *GEOPHYSICAL JOURNAL INTERNATIONAL*  
MERZER, A. M., KLEMPERER, S. L.  
1992; 108 (3): 895-905
- **DEEP SEISMIC SURVEY IMAGES CRUSTAL STRUCTURE OF TORNQUIST ZONE BENEATH SOUTHERN BALTIC SEA** *GEOPHYSICAL RESEARCH LETTERS*  
MEISSNER, R., SADOWIAK, P., THOMAS, S., WEVER, T., DICKMAN, T., FLUH, E., BERTHELSEN, A., THYBO, H., DAHL-JENSEN, T., BALLING, N., NORMARK, E., HOBBS, R. W., KLEMPERER, et al  
1991; 18 (6): 1091-94
- **CRUSTAL STRUCTURE OF THE CENTRAL AND SOUTHERN NORTH-SEA FROM BIRPS DEEP SEISMIC-REFLECTION PROFILING** *JOURNAL OF THE GEOLOGICAL SOCIETY*  
Blundell, D. J., Hobbs, R. W., Klemperer, S. L., SCOTTROBINSON, R., Long, R. E., West, T. E., Duin, E.  
1991; 148: 445-457
- **RECORDING MARINE AIRGUN SHOTS AT OFFSETS BETWEEN 300-KM AND 700-KM** *GEOPHYSICAL RESEARCH LETTERS*  
Berthelsen, A., Thybo, H., Balling, N., Normark, E., Heikkinen, P., Korhonen, H., Luosto, U., Hjelt, S. E., Komminaho, K., Yliniemi, J., Meissner, R., SADOWIAK, P., Thomas, et al  
1991; 18 (4): 645-648

- **REFLECTIVITY OF A PROTEROZOIC SHIELD - EXAMPLES FROM BABEL SEISMIC PROFILES ACROSS FENNOSCANDIA** *4TH INTERNATIONAL SYMP ON DEEP REFLECTION PROFILING OF THE CONTINENTAL LITHOSPHERE*  
Meissner, R., SADOWIAK, P., Thomas, S., Wever, T., Dickmann, T., FLUH, E. R., DAHLJENSEN, T., Hobbs, R. W., Klemperer, S. L., MATTHEWS, D. H., Snyder, D. B., Long, R., Matthews, et al  
AMER GEOPHYSICAL UNION.1991: 77-86
- **A DEEP SEISMIC-REFLECTION TRANSECT ACROSS THE IRISH CALEDONIDES** *JOURNAL OF THE GEOLOGICAL SOCIETY*  
Klemperer, S. L., Ryan, P. D., Snyder, D. B.  
1991; 148: 149-?
- **EVIDENCE FOR EARLY PROTEROZOIC PLATE TECTONICS FROM SEISMIC REFLECTION PROFILES IN THE BALTIC SHIELD** *NATURE*  
Dahl-Jensen, T., Hobbs, R. W., Klemperer, S. L., MATTHEWS, D. H., Snyder, D. B., Long, R., Matthews, T., Blundell, D. J., Lund, C. E., Palm, H., Pedersen, L. B., Roberts, R. G., Elming, et al  
1990; 348 (6296): 34-38
- **REFLECTIONS FROM MANTLE FAULT ZONES AROUND THE BRITISH-ISLES** *GEOLOGY*  
Flack, C. A., Klemperer, S. L., McGeary, S. E., Snyder, D. B., Warner, M. R.  
1990; 18 (6): 528-532
- **PROGRESS IN BIRPS DEEP SEISMIC-REFLECTION PROFILING AROUND THE BRITISH-ISLES** *3RD INTERNATIONAL MEETING ON SEISMIC PROBING OF CONTINENTS AND THEIR MARGINS*  
MATTHEWS, D. H., Flack, C. A., Hobbs, R. W., Klemperer, S. L., Snyder, D. B., Warner, M. R., White, N. J.  
ELSEVIER SCIENCE BV.1990: 387-96
- **DATING THE SOURCE OF LOWER CRUSTAL REFLECTIVITY USING BIRPS DEEP SEISMIC PROFILES ACROSS THE LAPETUS SUTURE** *3RD INTERNATIONAL MEETING ON SEISMIC PROBING OF CONTINENTS AND THEIR MARGINS*  
Klemperer, S. L., Hobbs, R. W., Freeman, B.  
ELSEVIER SCIENCE BV.1990: 445-54
- **A COMPARISON OF THE MOHO INTERPRETED FROM GRAVITY-DATA AND FROM DEEP SEISMIC-REFLECTION DATA IN THE NORTHERN NORTH-SEA** *GEOPHYSICAL JOURNAL-OXFORD*  
HOLLIGER, K., KLEMPERER, S. L.  
1989; 97 (2): 247-58
- **DEEP SEISMIC-REFLECTION PROFILING AND THE GROWTH OF THE CONTINENTAL-CRUST** *TECTONOPHYSICS*  
KLEMPERER, S. L.  
1989; 161 (3-4): 233-44
- **LOWER-CRUSTAL POROSITY FROM ELECTRICAL MEASUREMENTS AND INFERENCES ABOUT COMPOSITION FROM SEISMIC VELOCITIES** *GEOPHYSICAL RESEARCH LETTERS*  
HYNDMAN, R. D., KLEMPERER, S. L.  
1989; 16 (3): 255-58
- **Deep seismic reflection profiling and the growth of the continental crust** *Tectonophysics*  
Klemperer, S. L.  
1989; 161: 233-244
- **Processing BIRPS deep seismic reflection data; a tutorial review** *Digital seismology and fine modeling of the lithosphere*  
Klemperer, S. L.  
edited by Cassinis, R., Nolet, G., Panza, G. F.  
1989: 229-257
- **A comparison of the Moho interpreted from gravity data and from deep seismic reflection data in the northern North Sea** *Geophysical Journal International*  
Holliger, K., Klemperer, S. L.  
1989; 97: 247-258
- **THE DEEP-STRUCTURE OF NORTHERN ENGLAND AND THE IAPETUS SUTURE ZONE FROM BIRPS DEEP SEISMIC-REFLECTION PROFILES** *JOURNAL OF THE GEOLOGICAL SOCIETY*  
Freeman, B., Klemperer, S. L., Hobbs, R. W.

1988; 145: 727-?

- **CRUSTAL THINNING AND NATURE OF EXTENSION IN THE NORTHERN NORTH-SEA FROM DEEP SEISMIC-REFLECTION PROFILING** *TECTONICS*  
KLEMPERER, S. L.  
1988; 7 (4): 803-21
- **SOUND-WAVES REFLECT BRITAINS DEEP GEOLOGY** *NEW SCIENTIST*  
KLEMPERER, S., FIFIELD, R.  
1988; 117 (1598): 73-&
- **The deep structure of northern England and the Iapetus suture zone from BIRPS deep seismic reflection profiles** *Journal of the Geological Society of London*  
Freeman, B., Klemperer, S. L., Hobbs, R. W.  
1988; 145: 727-740
- **Iapetus suture located beneath the North Sea by BIRPS deep seismic reflection profiling** *Geology*  
Klemperer, S. L., Matthews, D. H.  
1988; 15: 195-198
- **WIDE-ANGLE DEEP CRUSTAL REFLECTIONS IN THE NORTHERN APPALACHIANS** *GEOPHYSICAL JOURNAL OF THE ROYAL ASTRONOMICAL SOCIETY*  
Luetgert, J. H., Mann, C. E., Klemperer, S. L.  
1987; 89 (1): 183-188
- **REFLECTIVITY OF THE CRYSTALLINE CRUST - HYPOTHESES AND TESTS** *GEOPHYSICAL JOURNAL OF THE ROYAL ASTRONOMICAL SOCIETY*  
KLEMPERER, S. L.  
1987; 89 (1): 217-22
- **COCORP - NEW PERSPECTIVES ON THE DEEP CRUST** *GEOPHYSICAL JOURNAL OF THE ROYAL ASTRONOMICAL SOCIETY*  
Brown, L., Wille, D., Zheng, L., DEVOOGD, B., Mayer, J., Hearn, T., Sanford, W., Caruso, C., Zhu, T. F., Nelson, D., Potter, C., Hauser, E., Klemperer, et al  
1987; 89 (1): 47-53
- **SOME UNSOLVED BIRPS PROBLEMS** *GEOPHYSICAL JOURNAL OF THE ROYAL ASTRONOMICAL SOCIETY*  
MATTHEWS, D., Hobbs, R., Klemperer, S. L., McGeary, S., PEDDY, C. P., Warner, M. R., Smith, C. A.  
1987; 89 (1): 209-215
- **A COMPARISON OF REFLECTION AND REFRACTION PROCESSING AND INTERPRETATION METHODS APPLIED TO CONVENTIONAL REFRACTION DATA FROM COASTAL MAINE** *BULLETIN OF THE SEISMOLOGICAL SOCIETY OF AMERICA*  
Klemperer, S. L., Luetgert, J. H.  
1987; 77 (2): 614-630
- **CRUSTAL STRUCTURE OF WESTERN NEVADA FROM COCORP DEEP SEISMIC-REFLECTION DATA** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*  
Hauge, T. A., Allmendinger, R. W., Caruso, C., Hauser, E. C., Klemperer, S. L., OPDYKE, S., Potter, C. J., Sanford, W., Brown, L., KAUFMAN, S., Oliver, J.  
1987; 98 (3): 320-329
- **IAPETUS SUTURE LOCATED BENEATH THE NORTH-SEA BY BIRPS DEEP SEISMIC-REFLECTION PROFILING** *GEOLOGY*  
Klemperer, S. L., MATTHEWS, D. H.  
1987; 15 (3): 195-198
- **OVERVIEW OF THE COCORP 40-DEGREES-N TRANSECT, WESTERN UNITED-STATES - THE FABRIC OF AN OROGENIC BELT** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*  
Allmendinger, R. W., Hauge, T. A., Hauser, E. C., Potter, C. J., Klemperer, S. L., Nelson, K. D., KNUEPFER, P., Oliver, J.  
1987; 98 (3): 308-319
- **Overview of the COCORP 40N Transect, western United States: The fabric of an orogenic belt** *Geological Society of America Bulletin*  
Allmendinger, R. W., Hauge, T. A., Hauser, E. C., Potter, C. J., Klemperer, S. L., Nelson, K. D., Knuepfer, P., Oliver, J.

1987; 98: 308-319

- **A RELATION BETWEEN CONTINENTAL HEAT-FLOW AND THE SEISMIC REFLECTIVITY OF THE LOWER CRUST** *JOURNAL OF GEOPHYSICS-ZEITSCHRIFT FUR GEOPHYSIK*  
KLEMPERER, S. L.  
1987; 61 (1): 1-11
- **Seismic noise-reduction techniques for use with vertical stacking; an empirical comparison** *Geophysics*  
Klemperer, S. L.  
1987; 52: 322-334
- **Simulations of noise rejection and mantissa-only recording; an experiment in high-amplitude noise reduction with COCORP data** *Geophysics*  
Klemperer, S. L., Brown, L.  
1987; 50: 709-714
- **THE MOHO IN THE NORTHERN BASIN AND RANGE PROVINCE, NEVADA, ALONG THE COCORP 40-DEGREE-N SEISMIC-REFLECTION TRANSECT** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*  
Hauge, T. A., Hauser, E. C., Oliver, J. E., Potter, C. J., Klemperer, S.  
1986; 97 (5): 603-618
- **The Moho in the northern Basin and Range Province, Nevada, along the COCORP 40°N seismic-reflection transect** *Geological Society of America Bulletin*  
Klemperer, S. L., Hauge, T. A., Hauser, E. C., Oliver, J. E., Potter, C. J.  
1986; 97: 603-618
- **SOME RESULTS OF COCORP SEISMIC-REFLECTION PROFILING IN THE GRENVILLE-AGE ADIRONDACK MOUNTAINS, NEW-YORK STATE** *CANADIAN JOURNAL OF EARTH SCIENCES*  
Klemperer, S. L., Brown, L. D., Oliver, J. E., ANDO, C. J., CZUCHRA, B. L., KAUFMAN, S.  
1985; 22 (2): 141-153
- **CRUSTAL PROFILE OF MOUNTAIN BELT - COCORP DEEP SEISMIC-REFLECTION PROFILING IN NEW-ENGLAND APPALACHIANS AND IMPLICATIONS FOR ARCHITECTURE OF CONVERGENT MOUNTAIN CHAINS** *AAPG BULLETIN-AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS*  
ANDO, C. J., CZUCHRA, B. L., Klemperer, S. L., Brown, L. D., Cheadle, M. J., Cook, F. A., Oliver, J. E., KAUFMAN, S., Walsh, T., Thompson, J. B., Lyons, J. B., Rosenfeld, J. L.  
1984; 68 (7): 819-837
- **Adirondack-Appalachian crustal structure: The COCORP Northeast Traverse** *Geological Society of America Bulletin*  
Brown, L., Ando, C., Klemperer, S., Oliver, J., Kaufman, S., Czuchra, B., Walsh, T., Isachsen, Y. W.  
1983; 94: 1173-1184
- **ADIRONDACK-APPALACHIAN CRUSTAL STRUCTURE - THE COCORP NORTHEAST TRAVERSE** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*  
Brown, L., Ando, C., Klemperer, S., Oliver, J., KAUFMAN, S., CZUCHRA, B., Walsh, T., Isachsen, Y. W.  
1983; 94 (10): 1173-1184