SIMON L. KLEMPERER

Professor of Geophysics,
and of Earth & Planetary Sciences
Stanford University

Mitchell Building 353,
Stanford, CA 94305-2215,
U.S.A.

February 2026

(A) PROFESSIONAL PREPARATION

Cambridge University, U.K.	Natural Sciences (Mineralogy & Petrology)	B.A.	1980
Cornell University, N.Y.	Geophysics (Adviser: Jack Oliver)	Ph.D.	1985

(B) APPOINTMENTS

1990 on	Professor, formerly Associate Professor, of Geophysics, Stanford University Professor (by courtesy), Earth & Planetary Sciences, Stanford University
1987–90	Royal Society University Research Fellow, Cambridge University
1985–87	Research Associate, British Institutions' Reflection Profiling Syndicate (BIRPS), Cambridge University (Adviser: Drum Matthews)
1985	Research Associate, Consortium for Continental Reflection Profiling (COCORP), Cornell University (Adviser: Jack Oliver)

(C) HONORS

2023	Exceptional Reviewer, Geological Society of America
2018	Fellow of the American Geophysical Union, AGU (only 0.1% elected each year)
2008	Allan V. Cox medal for faculty excellence fostering undergraduate research
1995	Fellow, Geological Society of America
1988	President's Award, Geological Society of London
1987–90	Royal Society University Research Fellowship

(D) PROFESSIONAL SERVICE

2012	NASA Review Panel, Earth Surface and Interior
2010 on	Scientific Advisor to Sinoprobe, China's national program to explore the deep structure of China
2010	Convener, 25th Himalaya-Karakoram-Tibet International Workshop, San Francisco
2008–10	NSF-MARGINS Distinguished Lecturer
2005	Convenor, Earthscope Workshop, 3D seismic reflection at the SAFOD site

2004 Convenor, US-Africa Workshop, Anatomy of Continental Rifts, Addis Ababa
2002 Convenor, NSF-IFREE-MARGINS workshop, Izu-Bonin-Mariana Subduction Factory
2001 Convenor, The George Thompson Symposium: The Lithosphere of Western North America and its Geophysical Characterization, Stanford University
1998–2004 Member, NSF EAR Continental Dynamics Review Panel
1997–2002 Member, NSF EAR-OCE MARGINS Science Committee
1996 Convenor, 5th Conference on Deep Seismic Profiling of the Continents and their Margins
1991–1998 Director, IRIS-PASSCAL Instrument Center

(E) ADVISEES

10 Post-docs advised:
Lin Liu (Ocean University, Qingdao), Eiji Kurashimo (ERI, University of Tokyo), Charlie Wilson (financial analyst), Caitlin O'Connell-Rodwell (Harvard Medical School), Jason Wood (SMRU Marine), Tanni Abramowitz (DONG Energy), Andrew Long (Petroleum GeoServices), John Hole (Virginia Tech), Bruce Beaudoin (IRIS-PASSCAL), Ginger Barth (USGS)

17 Ph.D. degrees awarded (initial employment):
Axel Wang (t.b.d.), Alex Blanchette (character.ai), Tianze Liu (Woods Hole), Chris Castillo (Castillo Geophysical), Mairi Litherland (New Mexico Tech), Shahar Barak (Nobel Energy), Warren Caldwell (ENSCO), Marianne Karplus (UTEP), Katie Keranen (Cornell), Ewenet Gashawbeza (Aramco), Derek Lerch (Feather River College), Kris Walker (Halliburton), Seth Haines (USGS), Darcy Karakelian McPhee (USGS), Moritz Fliedner (Chevron), Nicola Godfrey (Halliburton), Yizhaq Makovsky (Haifa Univ)
2 current PhD students: Xiaohan Song, Junyi Gong

10 terminal M.S. degrees (research thesis):
Kendall Zylstra, Katrina Zamudio, Lyra Hao, Noah Athens, Valentina Fontiveros, Kathleen Burnham, Emily Chetwin, Frances Cole, Brian Hicks, Jeff Johnson, Brian Galloway

22 terminal M.S. degrees (Exploration & Development progam, active 1991–1999):
Reynaldo Cardona, Miguel Diaz, Abdulaziz Al-Buali, Jesse Lomask, Osman Khan, Azer Mustaqeem, Saleh Al-Dossary, Agus Djamil, Francisco Maldonado, George Viegas, Yacob Tesfaye, Maureen Jacoby, Gwendolyn Hofler, Thomas Finkbeiner, Lindy Phillip, Anthony Stell, Michael Milan, Sandor Talas, Wade Skelton, Jennifer Crisi, Paul Peterman, Kristine Fraser

5 peer-reviewed undergraduate first-authored publications
Geophysical Research Letters, Tectonophysics, Deep-Sea Research; USGS-Open File Reports

30 undergraduate research advisees presenting at national/international meetings:
Ariana Gomez Guardamino, Emmanuel Zhang, Jackie Harris, Hitank Kasaundhan, Kimberley Espinal, Masooma Hasnain, Gabriel Ferragut, Brianna Birkel, Ethan Williams, Aramide Moronfoye, Dave Connor, Lilliana Christman, Monica Poletti, Alex Kinsella, Eva Golos, Caroline Scheevel, Daniel Bowden, Henry Engelland-Gay, Kelsey Schiltz, Ian Keneally, Neala Creasey, Jillian Garber, Danny Neumann, Selwyn Lloyd-McPherson, Dave Culp, Sheila Bijoor, Andrea Les, Michelle Cash, Tawni Tidwell, Roland Gunther

3 high-school research advisees presenting at national/international meetings:
Brian Chen, Elizabeth Richardson, Kiefer Chow

(F) 50 MOST IMPACTFUL/IMPORTANT PUBLICATIONS (SORTED BY TOPIC)

%% = cited >200 times & **%** >100 times per Google Scholar
**undergraduate advisee of SLK; *graduate advisee

HIMALAYA & TIBET

2026 *Craig, J.W., KLEMPERER, S.L., Crossey, L.J., Karlstrom, K.E., and Winn, C. Venting the roof of the world: Active faults circulate meteoric fluids through upper-crustal geothermal systems of the Himalaya-Tibet orogen: *Geology*, 54, pp. ##-##, https://doi.org/10.1130/G53940.1

2026 *Song, X., & Klemperer, S.L. Himalayan sub-Moho earthquakes suggest crustal faults trigger eclogitized-drip tectonics. *Nature Scientific Reports*. https://doi.org/10.1038/s41598-02x-xxxxx-x

2025 Liu, L., Shi, D. and KLEMPERER, S.L. The Indian Plate subducting below the Tibet Plateau is tearing apart. *Nature Communications Earth & Environment*, *6*(1), p.616.

2024 *Song, X. and KLEMPERER, S.L. Numerous Tibetan lower-crustal and upper-mantle earthquakes, detected by Sn/Lg ratios, suggest crustal delamination or drip tectonics. *Earth and Planetary Science Letters*, *626*, p.118555.

% 2022 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. Limited underthrusting of India below Tibet: 3He/4He analysis of thermal springs locates the mantle suture in continental collision. *Proceedings of the National Academy of Sciences*, *119*(12), p.e2113877119.

% 2020 Shi, D., KLEMPERER, S.L., Shi, J., Wu, Z.H, & Zhao, W.J. Localized foundering of Indian lower crust in the India–Tibet collision zone. *Proceedings of the National Academy of Sciences*, 117 (40) 24742-24747. https://doi.org/10.1073/pnas.2000015117

%% 2016 Gao, R., Lu, Z., KLEMPERER, S.L., Wang, H., Dong, S., Li, W., & Li, H. Crustal-scale duplexing beneath the Yarlung Zangbo suture in the western Himalaya, *Nature Geoscience* 9, 555-560.

%% 2016 Liang, X.F., Chen, Y., Tian, X., Chen,, Y.J. Ni, J., Gallegos, A., KLEMPERER, S.L., Wang, M., Xu, T., Sun, C.Q., Si, S.K., Lan, H.Q., Teng, J.W. 3D imaging of subducting and fragmenting Indian continental lithosphere beneath southern and central Tibet using body-wave finite-frequency tomography *Earth & Planetary Science Letters* 443, 162-175

% 2015 Shi, D., Wu, Z., KLEMPERER, S.L., Zhao, W.J., Hue, G., & Su, H. Receiver-function imaging of crustal suture, steep subduction and mantle wedge in the eastern India-Tibet continental collision zone, *Earth Planet Sci. Letts.,* 414, 6-15, http://dx.doi.org/10.1016/j.epsl.2014.12.055.

% 2013 KLEMPERER, S.L., Kennedy, B.M., Sastry, S.R., Makovsky, Y., Harinarayana, T., & Leech, M.L. Mantle fluids in the Karakoram fault: helium isotope evidence, *Earth Planetary Science Letters,* 366, 59–70, 10.1016/j.epsl.2013.01.013.

% 2011 *Karplus, M.S., Zhao W., KLEMPERER, S.L., Wu, Z., Mechie, J., Shi D., Brown, L.D., & Chen, C., Injection of Tibetan crust beneath the south Qaidam Basin: Evidence from INDEPTH IV wide-angle seismic data, *J. Geophys. Res*, 116, B07301, doi:10.1029/2010JB007911.

% 2009 *Caldwell, W.B., KLEMPERER, S.L., Rai, S.S., &Lawrence, J.F. Partial melt in the upper-middle crust of the northwest Himalaya revealed by Rayleigh wave dispersion. *Tectonophys.,* 477, 58-65.

%% 2006 KLEMPERER, S.L. Crustal flow in Tibet: geophysical evidence for the physical state of Tibetan lithosphere, and inferred patterns of active flow. In: "Channel flow, ductile extrusion and exhumation in continental collision zones", R.D. Law, M.P. Searle & L. Godin, eds., *Geol. Soc. Lond. Special Publication,* v. 268, 39-70.

%% 2005 Leech, M.L., Singh, S., Jain, A.K., KLEMPERER, S.L., & Manickavasagam, R.M. The onset of India-Asia continental collision: early, steep subduction required by the timing of UHP metamorphism in the western Himalaya, *Earth Planet. Sci. Letts.*, v. 234, 83-97; and Reply to comment by P.J. O'Brien,

Earth Planet. Sci. Letts., v. 245, 817-820.

% 2003 *Haines, S.S., KLEMPERER, S.L., Brown, L., Guo J., Mechie, J., Meissner, R., Ross, A., & Zhao, W. INDEPTH III seismic data: from surface observations to deep crustal processes in Tibet. *Tectonics,* v. 22, 1001, doi:10.1029/2001TC001305.

%% 1999 *Makovsky, Y. & KLEMPERER, S.L., Measuring the seismic properties of Tibetan brightspots: free aqueous fluids in the Tibetan middle crust. *J. Geophys. Res.,* 104, 10,795-10,825.

%% 1996 Nelson, K.D., W. Zhao, L.D. Brown, J. Kuo, J. Che, X. Liu, KLEMPERER, S.L., Y. Makovsky, R. Meissner, J. Mechie, & 18 co-authors, Partially Molten Middle Crust Beneath Southern Tibet: Synthesis of Project INDEPTH Results. *Science,* v. 274, 1684-1688

%% 1993 Zhao, W.J., Nelson, K.D., & Project INDEPTH Team. Deep seismic reflection evidence for continental underthrusting beneath southern Tibet. Nature, v. 366, 557-559.

RIFTING: ETHIOPIA, RED SEA; BASIN-&-RANGE PROVINCE; NORTH SEA

2025 *Blanchette, A., KLEMPERER, S.L., Mooney, W. and Sehli, T. Migration of Seismicity from the Mantle to the Upper Crust Beneath Harrat Lunayyir Volcanic Field, Saudi Arabia. *Seismica*, *4*(1) doi.org/10.26443/seismica.v4i1.1148.

2018 *Blanchette, A.R., KLEMPERER, S.L., Mooney, W.D. & Zahran, H.M. Two-stage Red Sea rifting inferred from mantle earthquakes in Neoproterozoic lithosphere. *Earth and Planetary Science Letters,* 497, 92-101.

2017 *Litherland, M.M., KLEMPERER, S.L., Crustal structure of the Ruby Mountains metamorphic core complex, Nevada, from passive seismic imaging *Geosphere* 13 (5), 1506-1523

% 2009 *Keranen, K.M., KLEMPERER, S.L., Julia, J., Lawrence, J.F., & Nyblade, A.A. Low lower-crustal velocity across Ethiopia: is the Main Ethiopian Rift a narrow rift in a hot craton? *Geochem. Geophys. Geosyst.,* 10, Q0AB01, doi:10.1029/2008GC002293, pp. 21.

% 2008 *Keranen, K, & KLEMPERER, S.L., 2008. Discontinuous and diachronous evolution of the Main Ethiopian Rift: implications for development of continental rifts, *Earth & Planetary Science Letters,* v. 265, 96-111, doi: 10.1016/j.epsl.2007.09.038.

%% 2004 *Keranen, K., KLEMPERER, S.L., Gloaguen, R., & the EAGLE Working Group. Three-dimensional seismic imaging of a proto-ridge axis in the Main Ethiopian Rift. *Geology,* v. 32, p. 949–952, doi: 10.1130/G20737.1 & Data Repository item 2004155.

%% 2002 Menzies, M.A., KLEMPERER, S.L., Ebinger, C.J., & Baker, J. Characteristics of volcanic rifted margins. In: "Magmatic Rifted Margins", M.A. Menzies, S.L. Klemperer, C. Ebinger & J. Baker, eds. *Geological Society of America Special Paper* 362, pp. 1-14.

1989 KLEMPERER, S.L., N. White. Coaxial stretching or lithospheric simple shear in the North Sea? Evidence from deep seismic profiling and subsidence In: Extensional tectonics and stratigraphy of the North Atlantic margins *AAPG Special Volumes 156*, 511-522

1989 **Holliger, K., & KLEMPERER, S.L. A comparison of the Moho interpreted from gravity data and from deep seismic reflection data in the northern North Sea. *Geophys, J. International,* v.97, 247-258.

% 1988 KLEMPERER, S.L., Crustal thinning and nature of extension in the northern North Sea from deep seismic reflection profiling. *Tectonics* 7, 803-821

%% 1986 KLEMPERER, S.L., Hauge, T.A., Hauser, E.C., Oliver, J.E., Potter, C.J., 1986. The Moho in the northern Basin and Range Province, Nevada, along the COCORP 40°N seismic-reflection transect. *Geol. Soc. Am. Bull.,* v.97, 603-618.

ONSHORE & OFFSHORE CALIFORNIA

2019 *Castillo, C.M., KLEMPERER, S.L., Ingle, J.C., Powell, C.L., Legg, M.R., & Francis, R.D. Late Quaternary subsidence of Santa Catalina Island, California Continental Borderland, demonstrated by seismic-reflection data and fossil assemblages from submerged marine terraces. *Geol. Soc. Am. Bull.,* v. 131, 21–42.

2016 *Barak, S., & KLEMPERER, S.L., Rapid variation in upper-mantle rheology across the San Andreas fault system and Salton Trough, southernmost California, USA *Geology* 44 (7), 575-578

2015 *Barak, S., KLEMPERER, S.L., & J.F. Lawrence. 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* 16 (11), 3946-3972

% 1997 *Godfrey, N.J., Beaudoin, B.C., KLEMPERER, S.L., & Mendocino Working Group. 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* 109 (12), 1536-1562.

% 1994 Brocher, T.M., J. McCarthy, P.E. Hart, W.S. Holbrook, K.P. Furlong, T.V. McEvilly, J.A. Hole, & KLEMPERER, S.L. Seismic Evidence for a Lower-Crustal Detachment Beneath San Francisco Bay, California. *Science,* v. 265, 1436-1439

CONTINENTAL & ISLAND ARCS

% 2008 Calvert, A.J., KLEMPERER, S.L., Takahashi, N., & *Kerr, B.C. Three-dimensional crustal structure of the Mariana Island arc from seismic tomography. *J. Geophys. Res.,* v. 113, B01406, doi:10.1029/2007JB004939, pp. 24.

%% 2007 Takahashi, N., Kodaira, S., KLEMPERER, S.L., Tatsumi, Y., Kaneda, Y., & Suyehiro, K. Crustal structure and evolution of the Mariana intra-oceanic island arc. *Geology,* 35, 203–206, doi: 10.1130/G23212A.1

%% 2003 Stern, R.J., M.J. Fouch, KLEMPERER, S.L. An Overview of the Izu-Bonin-Mariana Subduction Factory. In "Inside the Subduction Factory", J. Eiler & M. Hirschmann, eds. *American Geophysical Union Geophysical Monograph,* 138, 175-222.

% 2000 *Fliedner, M.M. & KLEMPERER, S.L., Crustal structure transition from oceanic arc to continental arc in the crustal structure of the Aleutian Arc. *Earth Planet. Sci. Letts.,* v. 179, pp. 567-579.

% 2000 *Fliedner, M.M., KLEMPERER, S.L., & N. Christensen. Three-dimensional seismic model of the Sierra Nevada arc, California, and its implications for crustal and upper mantle composition. *J. Geophys. Res.*, v. 105, pp. 10,899-10,921.

COLLISIONAL SUTURES

% 2003 Yuan, X.-C., KLEMPERER, S.L., Teng W.-B., Liu L.-X., & *Chetwin, E.M. Crustal structure and exhumation of the Dabie Shan ultrahigh-pressure orogen, eastern China, from seismic reflection profiling. *Geology,* v. 31, 435-438; and Reply to Comment by Z.Y. Zhao and A.M. Fang. *Geology,* v. 31, e39, DOI 10.1130/0091-7613(2003)312.0.CO;2

1991 KLEMPERER, S.L., PD Ryan, DB Snyder, A deep seismic reflection transect across the Irish Caledonides. *Journal of the Geological Society* 148 (1), 149-164

%% 1990 BABEL Working Group (corresponding author KLEMPERER, S.L.), Evidence for early Proterozoic plate tectonics from seismic reflection profiles in the Baltic shield. *Nature*, v348, pp 34-38.

1990 Flack, C.A., KLEMPERER, S.L., SE McGeary, DB Snyder, MR Warner Reflections from mantle fault zones around the British Isles. *Geology* 18 (6), 528-532

% 1988 Freeman, B., KLEMPERER, S.L., Hobbs, R.W. The deep structure of northern England and the Iapetus suture zone from BIRPS deep seismic reflection profiles. *J. Geol. Soc. Lond.,* v.145, 727-740.

% 1984 Ando, C.J., BL Czuchra, KLEMPERER, S.L., LD Brown, MJ Cheadle, FA Cook, JE Oliver, S Kaufman, T Walsh, JB Thompson Jr., JB Lyons, JL Rosenfeld. Crustal profile of mountain belt: COCORP deep seismic reflection profiling in New England Appalachians and implications for architecture of convergent mountain chains. AAPG Bulletin 68 (7), 819-837

SEISMIC METHODOLOGY

2026 *Wang, S. and KLEMPERER, S.L. Continental mantle earthquakes of the world. *Science*, science.org/doi/10.1126/science.adz4367.

2021 *Wang, S., & KLEMPERER, S.L. Love-wave normal modes discriminate between upper-mantle and crustal earthquakes: Simulation and demonstration in Tibet. *Earth and Planetary Science Letters*, *571*, p.117089.

2020 *Liu, T., KLEMPERER, S.L., Yu, C., & Ning, J. 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*, *223*(3), pp.2166-2187.

2019 *Liu, T., KLEMPERER, S.L., **Ferragut, G., & Yu, C. 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*, v. 219, 1334–1347.

% 2007 *Haines, S.S., Pride, S., KLEMPERER, S.L., & Biondi, B. Seismoelectric imaging of shallow targets. *Geophysics*, v. 72 (2), 10.1190/1.2428267.

PRE-SEISMIC AND CO-SEISMIC ELECTROMAGNETICS

2022 Wang, C., **Christman, L.E., KLEMPERER, S.L., Glen, J.M., McPhee, D.K., & Chen, B. Assessment of a claimed ultra-low frequency electromagnetic (ULFEM) earthquake precursor. *Geophysical Journal International*, *229*(3), pp.2081-2095.

2021 Zhao, J., Gao, Y., Tang, J., KLEMPERER, S.L., Wen, J., Chen, C.H., & Chong, J. Electromagnetic field generated by an earthquake source due to motional induction in 3D stratified media, and application to 2008 Mw 6.1 Qingchuan earthquake. *Journal of Geophysical Research: Solid Earth*, *126*(10), p.e2021JB022102.

2021 KLEMPERER, S.L., Fraser-Smith, A., McGill, P., Bernardi, A., Glen, J., & McPhee, D.K., 2021. Comments on "On the reported magnetic precursor of the 1989 Loma Prieta earthquake" by JN Thomas, JJ Love, and MJS Johnston. *EarthArXiv,* https://eartharxiv.org/repository/view/1961/

% 1997 Merzer, M., KLEMPERER, S.L., Modeling low-frequency magnetic-field precursors to the Loma Prieta earthquake with a precursory increase in fault-zone conductivity. *Pure & Applied Geophysics* 150 (2), 217

1992 Merzer, A.M., KLEMPERER, S.L., High electrical conductivity in a model lower crust with unconnected, conductive, seismically reflective layers. *Geophysical Journal International* 108 (3), 895-905.

BOOK

%% 1991 KLEMPERER, S.L., Hobbs, R. The BIRPS Atlas: Deep Seismic Reflection Profiles around the British Isles, Cambridge University Press, pp.128 + 99 seismic sections (boxed fold-outs)

(G) ALL PUBLICATIONS (SORTED BY DATE, MOST RECENT FIRST)

%% = cited ≥200 times & **%** ≥100 times per Google Scholar
Total: 19420 citations; h = 78; i10 = 168; i100 = 58; i1000 = 2
**undergraduate advisee of SLK; *graduate advisee

— *Song, X., KLEMPERER, S.L., Shi, D., Liang, X., Li, J., Subedi, S., & Adhikari, L.B. A southern Tibetan sub-Moho earthquake breaking the brittle thermal limit. *Tectonophysics*, in review.

2026 *Craig, J.W., KLEMPERER, S.L., Crossey, L.J., Karlstrom, K.E., & Winn, C. Venting the roof of the world: Active faults circulate meteoric fluids through upper-crustal geothermal systems of the Himalaya-Tibet orogen: *Geology*, 54, pp. ##-##, https://doi.org/10.1130/G53940.1

2026 *Song, X., & Klemperer, S.L. Himalayan sub-Moho earthquakes suggest crustal faults trigger eclogitized-drip tectonics. *Nature Scientific Reports*. https://doi.org/10.1038/s41598-02x-xxxxx-x

2026 *Wang, S. & KLEMPERER, S.L. Continental mantle earthquakes of the world. *Science*, science.org/doi/10.1126/science.adz4367.

2025 *Blanchette, A., KLEMPERER, S.L., Mooney, W. & Sehli, T. Migration of Seismicity from the Mantle to the Upper Crust Beneath Harrat Lunayyir Volcanic Field, Saudi Arabia. *Seismica*, *4*(1) doi.org/10.26443/seismica.v4i1.1148.

2025 **Gomez, A., KLEMPERER, S.L., *Gong, J., & *Zylstra, K. Claimed lower-crustal and upper-mantle earthquakes in Tibet and California: Where are they really? *ESS Open Archive,* DOI: 10.22541/essoar.176893854.40161282/v1 and in *AGU Fall Meeting Abstracts* (Vol. 2025, pp. T41C-044)

2025 KLEMPERER, S.L. Indian cratonic mantle beneath northern Qiangtang in eastern Tibet ca. 11 Ma. *Geology*, *53*(11), pp.e588-e588.

2025 Liu, L., Shi, D. & KLEMPERER, S.L. The Indian Plate subducting below the Tibet Plateau is tearing apart. *Nature Communications Earth & Environment*, *6*(1), p.616.

2025 *Song, X., KLEMPERER, S.L., & Liang, X. Are Himalayan sub-Moho earthquakes in the petrological mantle? *Tectonophysics*, p.230942.

2025 *Wang, S. & KLEMPERER, S.L. Numerical and observational study of Sn-to-Lg conversion due to crustal-thickening: Implications for identification of continental mantle earthquakes. *Journal of Geophysical Research: Solid Earth*, *130*(2), p.e2024JB029893.

2025 **Zheng, E., *Song, X., KLEMPERER, S.L., & *Gong, J. Recognizing Mantle Earthquakes Using Seismic Waveforms: Extending the Sn/Lg Method. *ESS Open Archive* DOI: 10.22541/essoar.176659477.71914933/v1 and in *AGU Fall Meeting Abstracts* (Vol. 2025, pp. S33B-0261)

2024 *Craig, J.W., KLEMPERER, S.L., Crossey, L.J., Karlstrom, K.E., & Zhao, P., Preliminary Tectonic and Structural Controls of Geothermal Springs of the Tibetan Plateau: Insight from Regional-Scale Sampling of Helium-Isotopes (^{3}He/^{4}He), Stable Isotopes, and Aqueous Geothermometry. *Proceedings, 49th Workshop Geothermal Reservoir Engineering*, California, SGP-TR-227, 10 pp.

2024 KLEMPERER, S.L., *Wang, S., *Song, X., **Harris, J.R., **Kasaundhan, H. & Liang, X. Below-Moho Earthquakes of Tibet, Himalaya, the Indian Foreland, and Worldwide: How, Where and Why? In *Acta Geologica Sinica-English Edition* (Vol. 98, No. S1, pp. 27-29).

2024 *Song, X. & KLEMPERER, S.L. Numerous Tibetan lower-crustal and upper-mantle earthquakes, detected by Sn/Lg ratios, suggest crustal delamination or drip tectonics. *Earth and Planetary Science Letters*, *626*, p.118555.

2024 *Wang, S. & KLEMPERER, S.L. Identification of continental mantle earthquakes using regional waves propagating into a thinned continental crust. *Geophysical Research Letters*, *51*(21), p.e2024GL111774.

2023 *Blanchette, A.R., KLEMPERER, S.L., & Mooney, W.D. Crustal thickness and the V_P/V_S ratio within the Arabia Plate from P-wave receiver functions at 154 broadband seismic stations. Open-File Report 2023-1042. https://doi.org/10.3133/ofr20231042

2023 *Blanchette, A.R., KLEMPERER, S.L., Mooney, W.D., and Zahran, H.M., 2023, Thickness of the Saudi Arabian crust, chap. M of Sisson, T.W., Calvert, A.T., and Mooney, W.D., eds., Active volcanism on the Arabian Shield—Geology, volcanology, and geophysics of northern Harrat Rahat and vicinity, Kingdom of Saudi Arabia: *U.S. Geological Survey Professional Paper* 1862, 49 p., https://doi.org/10.3133/pp1862M.

2023 Xia, B., Artemieva, I.M., Thybo, H., & KLEMPERER, S.L. Strong variability in the thermal structure of Tibetan Lithosphere. *Journal of geophysical research: Solid Earth*, *128*(3), p.e2022JB026213.

% 2022 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. Limited underthrusting of India below Tibet: $^3He/^4He$ analysis of thermal springs locates the mantle suture in continental collision. *Proceedings of the National Academy of Sciences*, *119*(12), p.e2113877119.

2022 Wang, C., **Christman, L.E., KLEMPERER, S.L., Glen, J.M., McPhee, D.K., & Chen, B. Assessment of a claimed ultra-low frequency electromagnetic (ULFEM) earthquake precursor. *Geophysical Journal International*, *229*(3), pp.2081-2095.

2021 *Castillo, C.M., & KLEMPERER, S.L. Uplifted marine terraces on Santa Catalina Island, California, USA. *Geology*, *49*(7), pp. e529-e529.

2021 KLEMPERER, S.L., Fraser-Smith, A., McGill, P., Bernardi, A., Glen, J., & McPhee, D.K., 2021. Comments on "On the reported magnetic precursor of the 1989 Loma Prieta earthquake" by JN Thomas, JJ Love, and MJS Johnston. *EarthArXiv,* https://eartharxiv.org/repository/view/1961/

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