

## LOUISE H. KELLOGG

### Professional Preparation:

Cornell University	Engineering Physics, Philosophy	BS and BA, 1982 (Dual Degree)
Cornell University	Engineering Physics	M Engineering, 1985
Cornell University	Geological Sciences	PhD, 1988

### Appointments:

1998-present	Professor, Department of Earth and Planetary Sciences (formerly Geology), UC Davis
2016-2017	Interim Chair, Department of Earth and Planetary Sciences
2013-2014	Acting Chair, Department of Earth and Planetary Sciences
2000-2008	Chair, Department of Geology, UC Davis
July 2003	Visiting Professor, Ecole Normale Supérieure de Lyon, France
1993-1998	Associate Professor, Geology, UC Davis
1990-1993	Assistant Professor, Geology, UC Davis
1988-1990	Myron C. Bantrell Research Fellow in Geochemistry and Geophysics, Caltech
1987	Visiting Researcher, Institut de Physique du Globe, Université de Paris VI

### Publications (from more than 80):

#### ***Five most closely related to the proposed project –***

- Hawkins, A., D.L. Turcotte, M.B. Yikilmaz, **L.H. Kellogg**, and J.B. Rundle (2017) Statistical Studies of Induced and Triggered Seismicity at the Geysers, California, *Pure and Applied Geophysics*, doi:10.1007/s00024-017-1569-z
- Streletz, G.J., Gebbie, G.A., Kreylos, O., Hamann, B., **Kellogg, L.H.** and Spero, H.J. (2016), Interpolating sparse scattered data using flow information, *Journal of Computational Science* 16, pp. 156-169.
- Yikilmaz M.B., Turcotte D.L., Beketova O., **Kellogg L.H.**, Rundle J.B. (2015) Earthquake Cycles on the San Andreas Fault System in Northern California. In: Hashimoto M. (eds) International Symposium on Geodesy for Earthquake and Natural Hazards (GENAH). International Association of Geodesy Symposia, v. 145, pp. 55 - 61, Springer, Cham, doi: 10.1007/1345\_2015\_203
- Cooper, C. M., E. Mittelstaedt, C. A Currie, J. Van Wijk, **L. H. Kellogg**, L. Hwang, R. Arrowsmith, GROUNDWORK: Moving lithospheric modeling forward: Attributes of a community computer code (2015) *GSA Today*, v. 25, pp. 42–43, doi: 10.1130/GSATG230GW.1
- Arrial P.A., Flyer N., Wright G. B., **Kellogg L. H.** On the sensitivity of 3-D thermal convection codes to numerical discretization: a model intercomparison. *Geoscientific Model Development Discussions*, 7: 2033-2064, 2014.

#### ***Five additional significant products –***

- Matsui, H., Heien, E., Aubert, J., Aurnou, J. M., Avery, M., Brown, B., Buffett, B. A., Busse, F., Christensen, U. R., Davies, C. J., Featherstone, N., Gastine, T., Glatzmaier, G. A., Gubbins, D., Guermond, J.-L., Hayashi, Y.-Y., Hollerbach, R., Hwang, L. J., Jackson, A., Jones, C. A., Jiang, W., **Kellogg, L. H.**, Kuang, W., Landeau, M., Marti, P. H., Olson, P., Ribeiro, A., Sasaki, Y., Schaeffer, N., Simitev, R. D., Sheyko, A., Silva, L., Stanley, S., Takahashi, F., Takehiro, S.-i., Wicht, J. and Willis, A. P. (2016), Performance benchmarks for a next generation numerical dynamo model. *Geochem. Geophys. Geosyst.* 17, 1586–1607, doi:10.1002/2015GC006159
- Moores, E. M., Yikilmaz, M. B., **Kellogg L. H.** Tectonics: 50 years after the revolution, *Geological Society of America Special Papers* 500. 321-369. 2013
- Kreylos, O., Oskin, M., Cowgill E., Gold P., Elliott A., **Kellogg L.** Point-based computing on scanned terrain with LidarViewer. *Geosphere*, Geological Society of America, 9: 546-556, 2013. doi:10.1130/GES00705.1
- Cowgill E., Bernardin T. S., Oskin M. E., Bowles C., Yikilmaz M. B., Kreylos O., Elliott A. J., Bishop S., Gold R. D., Morelan A., Bawden G. W., Hamann B., **Kellogg L. H.** Interactive terrain visualization enables virtual field work during rapid scientific response to the 2010 Haiti earthquake. *Geosphere*, Geological Society of America, 8: 787-804, 2012. doi:10.1130/GES00687.1
- Kellogg L. H.**, Hager B. H., van der Hilst R. Compositional stratification in the deep mantle. *Science*, 283: 1881-1884, 1999.

### **Synergistic Activities:**

- **Leadership:** Director, Computational Infrastructure for Geodynamics; Director, W. M. Keck Center for Active Visualization in the Earth Sciences; Department Chair; Member, UC Davis Graduate Groups in Applied Mathematics and in Computer Science.
- **Professional Society Memberships:** American Geophysical Union (Fellow), American Academy of Arts and Sciences (Fellow), Society for Industrial and Applied Mathematics (SIAM), American Association for the Advancement of Science (Fellow), Geological Society of America, Sigma Xi, Geochemical Society, Seismological Society of America
- **Professional Activities (past decade only):** GEO Advisory Committee, NSF, 2009-2014 (Chair 2010-14); Committee on Seismology and Geodynamics, National Research Council, 2001-2009 (Chair 2007-2009); Board on Earth Sciences and Resources, National Research Council, member 2007-2009, Steering Committee, Cooperative Institute for Deep Earth Research (CIDER); Editorial Board, Physics of the Earth and Planetary Interiors, 1998-present.
- **Outreach and Diversity Activities (selected examples):**
  - Augmented Reality Sandbox (AR Sandbox) and LakeViz: Open source, informal science education developing and disseminating 3-D visualization and augmented reality in museums, science centers, and classrooms to increase understanding of freshwater lake watersheds and geomorphological (with Tahoe Environmental Research Center, Lawrence Hall of Science, and ECHO Lake Center, Burlington VT). More than 300 AR Sandboxes have been constructed around the world.
  - UC Davis ADVANCE program's STEAD program team member, developing and providing training for faculty search committees on recruiting for excellence and diversity. UC Davis Chancellor's Award in Diversity and Community, 2005 (for recruiting and retaining excellent faculty from diverse backgrounds to the Earth and Planetary Sciences Department).
  - Arts-Science-Technology Collaboration: COLLAPSE: Suddenly Falling Down, a performance by Della Davidson featuring Art-Science-Technology collaboration, October-November 2007 (received the 2008 Isadora Duncan Award for Visual Design)