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Education

Ph.D., Geophysics, University of Colorado at Boulder, CO, August 2000.
Dissertation: Pattern Dynamics in Southern California Seismicity, with an appendix entitled Genetic Algorithm Applications to Geophysical Inverse Problems. Advisor: Dr. J.B. Rundle.
M.S., Civil Engineering, Structural Engineering, Stanford University, Stanford, CA, 1984.
B.S., Civil Engineering, second major in geology, Tufts University, Medford, MA, 1983, *summa cum laude.*

Professional Experience

Director, Earth Science and Observation Center (ESOC) & Professor, Department of Geological Sciences, Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado Boulder, Boulder, Colorado, 80309 USA, August 2015-present.
Full Professor, Department of Earth Sciences, University of Western Ontario, London, Ontario, Canada, July 2012-June 2015.
Associate Chair, Department of Earth Sciences, University of Western Ontario, London, Ontario, Canada, July 2013-July 2014.
Assistant/Associate Professor, Department of Earth Sciences, University of Western Ontario, London, Ontario, Canada, September 2003-June 2013.
Visiting Scholar, Universidad Complutense, Instituto de Astronomia y Geodesia, Madrid, Spain, Fall 2002 - Spring 2003.
Research Associate, Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado at Boulder, Fall 2000-Summer 2003.
Teaching Assistant, Fractals: Order & Chaos in a Complex World, Departments of Physics and Geology, University of Colorado, Spring 2002.
Senior Project Engineer, GS-12, U.S. Army Corps of Engineers, New England Division, 1988-1994.
Project Engineer, GS-11, U.S. Army Corps of Engineers, New England Division, 1984-1988.

Certifications & Awards

Outstanding Achievement Award, Tufts Civil and Environmental Engineering Department, 2020
Meritorious Service Award, Canadian Geophysical Union, 2017.
Faculty Scholar, University of Western Ontario, 2011-2013.
NSERC and Aon Benfield/ICLR Industrial Research Chair in Earthquake Hazard Assessment, 2006-2012.
Professional Engineer, State of Connecticut, 1990-1995.
CIRES Graduate Research Fellow, 1999-2000.
General Electric Foundation Fellowship, Stanford University, 1983-1984.
Robert L. Nichols Award, Geological Sciences, Tufts University, 1983.
BSCE/ASCE Howard P. Morse Award, Tufts University, 1983.
Tau Beta Pi, Tufts University, 1983.

Publications

Fernández, J., Escayo, J., Camacho, A.G., Palano, M., Prieto, J.F., Hu, Z., Samsonov, S.V., Tiampo, K.F., Ancochea, E. **Magmatic intrusion evolution below La Palma before the 2021 eruption**, *Nature*, submitted January 2022.

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Corsa, B., Barba, M., Tiampo, K.F., Meertens, C. **Integration of DInSAR time series and GNSS Data for continuous volcanic deformation monitoring and eruption early warning applications**, *Remote Sensing*, accepted for publication, January 2022.

Corsa, B., Jacquemart, M., Willis, M., Tiampo, K.F. **Characterization of large tsunamigenic landslide and their effects using digital elevation models: A case study Taan Fiord, Alaska**, *Remote Sensing of the Environment*, doi:10.1016/j.rse.2021.112881, 2022.

Samsonov, S.V., Tiampo, K.F., Cassotto, R. **Measuring the state and temporal evolution of glaciers in Alaska and Yukon using synthetic-aperture-radar-derived (SAR-derived) 3D time series of glacier surface flow**, *Cryosphere*, doi:10.5194/tc-15-4221-2021, 2021.

Culler, E., Badger, A., Minear, T., Zeigler, S., Tiampo, K., Livneh, B. **A multi-sensor evaluation of precipitation uncertainty for landslide-triggering storm events**, *Hydrologic Processes*, doi:10.1002/hyp.14260, 2021.

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Kelevitz, K., Corsa, B., Tiampo, K.F. **Improved real-time natural hazard monitoring using automated DInSAR time series**, *Remote Sensing,* 13(867), doi:10.3390/rs13050867021, 2021.

Jacquemart, M., Tiampo, K. **Leveraging time series analysis of radar coherence and normalized difference vegetation index ratios to characterize pre-failure activity of the Mud Creek landslide, California**, *Natural Hazards and Earth System Science*, doi:10.5194/nhess-21-629-2021, 2021.

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Invited Speaker

Tiampo, K., **Advanced Flood Extent Detection Algorithms Applied to Sentinel 1A/B Synthetic Aperture Radar Data**, Western & ICLR Multi-hazard Risk and Resilience (HRR) Workshop, Nov. 2021.

Tiampo, K., Woods, C., Huang, L., Sharma, P., Chen, Z., Kar, B., Bausch, D., Simmons, C., Estrada, R., Willis, M., Glasscoe, M. **A Machine Learning Approach to Flood Depth and Extent Detection Using Sentinel 1A/B Synthetic Aperture Radar**, IEEE International Geoscience and Remote Sensing Symposium (IGARSS 2021), July 2021.

Tiampo, K.F., and multiple collaborators, **DInSAR analysis of infrastructure and induced seismicity**, invited talk, Denver Geophysical Society, Denver, CO, July 2018.

Tiampo, K.F., and multiple collaborators. **Characterizing infrastructure hazard using** DInSAR, invited talk, Geological Remote Sensing Group Oil and Gas Remote Sensing Workshop, Boulder, CO, July 2018.

Tiampo, K.F., and multiple collaborators. **Remote sensing of natural and anthropogenic hazards**, Invited talk, INSTAAR, Boulder, CO, April 2018.

Tiampo, K.F., and multiple collaborators. **Remote sensing of natural and anthropogenic hazards**, Invited talk, NOAA NCEI, Boulder, CO, March 2018.

Tiampo, K.F., Kazemian, J., Dominguez, R., Serino, C., González, P.J., Klein, W., **What can simple models tell us about earthquake fault systems?** Invited talk, Stanford Complexity Group Symposium, Stanford, CA, 2017.

Tiampo, K.F., McKee, C., González, P.J., Samsonov, S. Alipour, S., Fernández, J., Camacho, A., **InSAR analysis of natural and anthropogenic hazards**, Pacific Geoscience Center, Sidney, BC, Canada, November 2015.

Tiampo, K.F. **Better understanding of natural and anthropogenic hazards using InSAR techniques**, Heiland Lecture, Colorado School of Mines, Golden, CO, March 2016.

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Tiampo, K.F., Samsonov, S., González, P.J., d'Oreye, N., Fernández, J., Camacho, A. **Advanced DInSAR time series analysis of natural and anthropogenic hazards**, IGARSS, Québec City, Québec, Canada, July 2014.

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Tiampo, K.F. **Linking strain and seismicity for earthquake hazard estimation**, ICLR Workshop, Toronto, November 2012.

Tiampo, K.F. **Earthquake Risk in Canada: Past, Present & Future**. A CPD Seminar for Actuaries on Earthquake Risk, June 2012.

Tiampo, K.F. **Physics-based earthquake forecasting: Past, present and future**, Guy Carpenter Executive Reinsurance Seminar, Seattle, Washington, 2011.

Tiampo, K.F., Rundle, J.B., Klein, W., Fernández, J., González, P.J. **Seismicity based earthquake forecasting**, Iberian seismic hazard workshop. A Cenozoic tectonics perspective. Madrid**,** Facultad de Ciencias Geológicas, Instituto de Geociencias, Campus de Excelencia Internacional, Madrid, Spain, 2011.

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Tiampo, K.F. **Studying Earthquake and Tsunami Hazard**, University of Applied Sciences, Fakultät Geoinformation, Munich, Germany, 2009.

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Tiampo, K.F., Rundle, J.B., and Klein, W. **A Pattern Informatics Technique Applied to the Study of Southern California Seismicity**, SCEC Annual Meeting, Oxnard, CA, September 2003.

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Other Scholarly Activities

Associate Editor, *Earth and Space Science,* AGU/Wiley journal, 2019-present.

Advisory Board member, NSERC UTILI proposal, UAV_CREATE, 2019-present.

Canadian representative to the Asia-Pacific Economic Cooperative (APEC) Cooperation for Earthquake Simulation (ACES), 2007-present.

Ex-officio, past chair, WInSAR Executive Committee, 2021-present.

Chair, WInSAR Executive Committee, 2019-2020.

Member-at-large, WInSAR Executive Committee, 2017-2018.

2019 NASA Decadal Survey Incubation Study Team: Surface Topography and Vegetation (STV) review panel, October 2019.

Review panel, 2019 NASA Decadal Survey Incubation Study Team: Surface Topography and Vegetation (STV) review panel, October 2019.

Review Panel, NSF, Harnessing the Data Revolution (HDR): Institutes for Data-Intensive Research in Science and Engineering - Ideas Labs (I-DIRSE-IL), March 2019.

AGU Fellows review committee, Union Joint Sections, Nonlinear Geophysics Section representative, 2019.

Guest editor, *Remote Sensing,* special issue, InSAR for Earth Observation, 2018-2020.

Member, Alaska Satellite Facility (ASF) DAAC User Working Group (UWG), 2016-present.

NSERC Discovery Grant Geosciences Evaluation Group (EG1506), 2017-2018.

CGU Awards chair, May 2014-2017.

NSERC RTI Evaluation Group (EG1506), 2015-2016.

AGU Geodesy Section representative to the AGU Spring Meeting, 2015-2016.

NSERC Geosciences Evaluation Group (EG1506), 2011-2014.

Guest Editor, *Pure and Applied Geophysics*, special issue from the Seventh ACES Conference on Earthquakes, 2011-2012.

First president of the Solid Earth Section, Canadian Geophysical Union, 2009-2011.

Selection Committee, Donald L. Turcotte Award, Nonlinear Geophysics Committee, American Geophysical Union, Fall 2008-2018 (not all years).

Member, Portable Observatories for Lithospheric Analysis and Research Investigating Seismicity (POLARIS) Steering Committee, 2006-2011.

Guest Editor, *Pure and Applied Geophysics*, special issue from the Fifth ACES Conference on Earthquakes and Tsunamis, 2006-2008.

Guest Editor, *Tectonophysics,* special issue, Critical Point Theory and Space-Time Pattern Formation in Precursory Seismicity, 2004-2006.

Member, KEGS, 2007-2015.

Member, Canadian Geophysical Union, 2000-present.

Member, Seismological Society of America, 1995-present.

Member, American Geophysical Union, 1995-present.