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Employment History

- 2018 – ···· 📌 **Research Assistant Professor.** School of Geosciences, University of South Florida.
- 2013 – 2018 📌 **Research Associate.** School of Geosciences, University of South Florida.
- 2006 – 2013 📌 **Staff Seismologist/Software Architect.** Alaska Volcano Observatory & Alaska Earthquake Center, University of Alaska Fairbanks.
- 2003 – 2006 📌 **Senior Geophysicist/Applications Developer.** British Geological Survey.
- 2000 – 2003 📌 **Senior Seismologist/Seismic Network Manager/Deputy Director.** Montserrat Volcano Observatory.
- 1998 – 2000 📌 **Postdoctoral Seismologist/Programmer.** Alaska Volcano Observatory, University of Alaska Fairbanks.
- 1997 – 1998 📌 **Systems Analyst/Programmer.** TNT Express Worldwide.
- 1996 📌 **Junior Seismologist.** Montserrat Volcano Observatory.
- 1992 📌 **Summer Student.** CERN (European Organization for Nuclear Research).
- 1989 – 1990 📌 **Electronics Technician.** Druck Ltd.

Education

- 1995 – 1999 📌 **Ph.D. Volcano Seismology** University of Leeds
Thesis title: *Modelling of seismo-volcanic sources* Advisor: Jürgen Neuberg (aka "Locko")
- 1993 – 1995 📌 **M.Sc. Geophysics** University of Durham.
Thesis title: *Modelling of bottom-simulating reflectors.*
- 1989 – 1993 📌 **B.Sc. Theoretical Physics and Mathematics** University of St. Andrews.
Thesis title: *Solar Coronal Heating.*

Publications

Book Chapters

- 1 S. R. McNutt, **G. Thompson**, J. Johnson, S. De Angelis, and D. Fee, "Seismic and infrasonic monitoring," in *The Encyclopedia of Volcanoes (Second Edition)*, H. Sigurdsson, B. Houghton, S. McNutt, H. Rymer, and J. Stix, Eds., Academic Press, Mar. 2015, pp. 1071–1099, ISBN: 9780123859389.

- 2 **G. Thompson**, "Seismic monitoring of volcanoes," in *Encyclopedia of Earthquake Engineering*, Beer, I. A. Kougioumtzoglou, E. Patelli, and I. S.-K. Au, Eds., vol. 10, Springer-Verlag: Berlin/Heidelberg, Germany, 2015, pp. 1–25, ISBN: 978-3-642-35343-7.

Journal Articles

- 1 Y. Zheng, H. Hu, F. J. Spera, *et al.*, "Episodic magma hammers for the January 2022 cataclysmic eruption of Hunga Tonga-Hunga Ha'apai," *Geophysical Research Letters*, vol. 50, no. 8, p. 78, Apr. 2023. [URL: https://doi.org/10.1029/2023GL102763](https://doi.org/10.1029/2023GL102763).
- 2 G. F. Manley, T. A. Mather, D. M. Pyle, *et al.*, "A deep active learning approach to the automatic classification of volcano-seismic events," *Frontiers in Earth Science*, vol. 10, p. 78, 2022.
- 3 H. McFarlin, **G. Thompson**, S. R. McNutt, J. Braunmiller, and M. E. West, "Classification of seismic activity at the Lazufre volcanic system, based on 2011 to 2012 data," *Frontiers in Earth Science*, p. 1416, 2022.
- 4 D. A. Yuen, M. A. Scruggs, F. J. Spera, *et al.*, "Under the surface: Pressure-induced planetary-scale waves, volcanic lightning, and gaseous clouds caused by the submarine eruption of Hunga Tonga-Hunga Ha'apai volcano," *Earthquake Research Advances*, vol. 2, no. 3, p. 100 134, 2022.
- 5 G. F. Manley, T. A. Mather, D. M. Pyle, *et al.*, "Machine learning approaches to identifying changes in eruptive state using multi-parameter datasets from the 2006 eruption of Augustine volcano, Alaska," *Journal of Geophysical Research: Solid Earth*, vol. 126, no. 12, e2021JB022323, 2021. [URL: https://doi.org/10.3389/feart.2022.807926](https://doi.org/10.3389/feart.2022.807926).
- 6 E. Gallant, F. Deng, C. Connor, *et al.*, "Deep and rapid thermo-mechanical erosion by a small-volume lava flow," *Earth and Planetary Science Letters*, vol. 537, p. 116 163, 2020. [DOI: 10.1016/j.epsl.2020.116163](https://doi.org/10.1016/j.epsl.2020.116163).
- 7 G. F. Manley, D. M. Pyle, T. A. Mather, *et al.*, "Understanding the timing of eruption end using a machine learning approach to classification of seismic time series," *Journal of Volcanology and Geothermal Research*, vol. 401, p. 106 917, 2020. [DOI: https://doi.org/10.1016/j.jvolgeores.2020.106917](https://doi.org/10.1016/j.jvolgeores.2020.106917).
- 8 C. M. Smith, **G. Thompson**, S. Reader, *et al.*, "Examining the statistical relationships between volcanic seismic, infrasound, and electrical signals: A case study of Sakurajima volcano, 2015," *Journal of Volcanology and Geothermal Research*, vol. 402, p. 106 996, 2020. [DOI: 10.1016/j.jvolgeores.2020.106996](https://doi.org/10.1016/j.jvolgeores.2020.106996).
- 9 **G. Thompson**, J. A. Power, J. Braunmiller, *et al.*, "Capturing, Preserving, and Digitizing legacy seismic data from the Montserrat Volcano Observatory analog seismic network, July 1995–December 2004," *Seismological Research Letters*, vol. 91, no. 4, pp. 2127–2140, 2020. [DOI: https://doi.org/10.1785/0220200012](https://doi.org/10.1785/0220200012).
- 10 J. Braunmiller, **G. Thompson**, and S. R. McNutt, "The January 2014 Northern Cuba earthquake sequence: Unusual location and unexpected source mechanism variability," *Bulletin of the Seismological Society of America*, vol. 109, no. 3, pp. 919–928, 2019.
- 11 H. McFarlin, D. Christensen, S. R. McNutt, *et al.*, "Receiver function analyses of Uturuncu volcano, Bolivia and vicinity," *Geosphere*, vol. 14, no. 1, pp. 50–64, 2018.
- 12 C. Mehta, A. Perez, **G. Thompson**, and M. A. Pasek, "Caveats to exogenous organic delivery from ablation, dilution, and thermal degradation," *Life*, vol. 8, no. 2, p. 13, 2018.
- 13 C. M. Smith, A. R. Van Eaton, S. Charbonnier, *et al.*, "Correlating the electrification of volcanic plumes with ashfall textures at Sakurajima volcano, Japan," *Earth and Planetary Science Letters*, vol. 492, pp. 47–58, 2018.

- 14 L. M. Boop, J. G. Wynn, **G. Thompson**, J. J. Fornos, and B. P. Onac, "Interactions between surface conditions, the Mediterranean sea, and cave climate within two littoral caves in Mallorca: Implications for the formation of phreatic overgrowths on speleotherms," *Journal of Cave & Karst Studies*, vol. 79, no. 1, p. 59, 2017.
- 15 A. K. Farrell, S. R. McNutt, and **G. Thompson**, "Seismic attenuation, time delays, and raypath bending of teleseisms beneath Uturuncu volcano, Bolivia," *Geosphere*, vol. 13, no. 3, pp. 699–722, 2017.
- 16 C. M. Smith, S. R. McNutt, and **G. Thompson**, "Ground-coupled airwaves at Pavlof volcano, Alaska, and their potential for eruption monitoring," *Bulletin of Volcanology*, vol. 78, no. 7, pp. 1–12, 2016. [DOI: 10.1007/s00445-016-1045-0](#).
- 17 N. DeRoin, S. R. McNutt, and **G. Thompson**, "Duration–amplitude relationships of volcanic tremor and earthquake swarms preceding and during the 2009 eruption of Redoubt volcano, Alaska," *Journal of Volcanology and Geothermal Research*, vol. 292, pp. 56–69, 2015. [DOI: 10.1016/j.jvolgeores.2015.01.003](#).
- 18 H. Buurman, M. E. West, and **G. Thompson**, "The seismicity of the 2009 Redoubt eruption," *Journal of Volcanology and Geothermal Research*, vol. 259, pp. 16–30, 2013. [DOI: 10.1016/j.jvolgeores.2012.04.024](#).
- 19 S. R. McNutt, **G. Thompson**, M. E. West, D. Fee, S. Stihler, and E. Clark, "Local seismic and infrasound observations of the 2009 explosive eruptions of Redoubt Volcano, Alaska," *Journal of Volcanology and Geothermal Research*, vol. 259, pp. 63–76, 2013. [DOI: 10.1016/j.jvolgeores.2013.03.016](#).
- 20 V. Miller, B. Voight, C. J. Ammon, E. Shalev, and **G. Thompson**, "Seismic expression of magma-induced crustal strains and localized fluid pressures during initial eruptive stages, Soufrière Hills Volcano, Montserrat," *Geophysical Research Letters*, vol. 37, no. 19, 2010.
- 21 **G. Thompson** and M. E. West, "Real-time detection of earthquake swarms at Redoubt Volcano, 2009," *Seismological Research Letters*, vol. 81, no. 3, pp. 505–513, 2010. [DOI: 10.1785/gssrl.81.3.50](#).
- 22 R. Luckett, B. Baptie, L. Ottemoller, and **G. Thompson**, "Seismic monitoring of the Soufrière Hills Volcano, Montserrat," *Seismological Research Letters*, vol. 78, no. 2, pp. 192–200, 2007. [DOI: 10.1785/gssrl.78.2.192](#).
- 23 J. Taron, D. Elsworth, **G. Thompson**, and B. Voight, "Mechanisms for rainfall-concurrent lava dome collapses at Soufrière Hills Volcano, 2000–2002," *Journal of Volcanology and Geothermal Research*, vol. 160, no. 1-2, pp. 195–209, 2007. [DOI: 10.1016/j.jvolgeores.2006.10.003](#).
- 24 O. Jaquet, R. Carniel, S. Sparks, **G. Thompson**, R. Namar, and M. Di Cecca, "DEVIN: A forecasting approach using stochastic methods applied to the Soufrière Hills volcano," *Journal of Volcanology and Geothermal Research*, vol. 153, no. 1-2, pp. 97–111, 2006. [DOI: 10.1016/j.jvolgeores.2005.08.013](#).
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- 26 H. Langer, S. Falsaperla, T. Powell, and **G. Thompson**, "Automatic classification and a-posteriori analysis of seismic event identification at Soufrière Hills volcano, Montserrat," *Journal of volcanology and geothermal research*, vol. 153, no. 1-2, pp. 1–10, 2006. [DOI: 10.1016/j.jvolgeores.2005.08.012](#).
- 27 S. A. Carn, R. B. Watts, **G. Thompson**, and G. E. Norton, "Anatomy of a lava dome collapse: The 20 March 2000 event at Soufrière Hills volcano, Montserrat," *Journal of Volcanology and Geothermal Research*, vol. 131, no. 3-4, pp. 241–264, 2004.
- 28 D. Elsworth, B. Voight, **G. Thompson**, and S. R. Young, "Thermal-hydrologic mechanism for rainfall-triggered collapse of lava domes," *Geology*, vol. 32, no. 11, pp. 969–972, 2004. [DOI: 10.1130/G20730.1](#).

- 29 M. Edmonds, C. Oppenheimer, D. M. Pyle, R. A. Herd, and **G. Thompson**, “SO₂ emissions from Soufrière Hills Volcano and their relationship to conduit permeability, hydrothermal interaction and degassing regime,” *Journal of Volcanology and Geothermal Research*, vol. 124, no. 1, pp. 23–43, 2003. [DOI: 10.1016/S0377-0273\(03\)00041-6](#).
- 30 H. Langer, S. Falsaperla, and **G. Thompson**, “Application of artificial neural networks for the classification of the seismic transients at Soufrière Hills volcano, Montserrat,” *Geophysical Research Letters*, vol. 30, no. 21, 2003. [URL: DOI%2010.1029/2003GL018082](#).
- 31 A. D. Jolly, **G. Thompson**, and G. E. Norton, “Locating pyroclastic flows on Soufrière Hills volcano, Montserrat, West Indies, using amplitude signals from high dynamic range instruments,” *Journal of Volcanology and Geothermal Research*, vol. 118, no. 3-4, pp. 299–317, 2002. [DOI: 10.1016/S0377-0273\(02\)00299-8](#).
- 32 A. J. Matthews, J. Barclay, S. Carn, *et al.*, “Rainfall-induced volcanic activity on Montserrat,” *Geophysical Research Letters*, vol. 29, no. 13, pp. 22–1, 2002. [DOI: 10.1029/2002GL014863](#).
- 33 **G. Thompson**, S. R. McNutt, and G. Tytgat, “Three distinct regimes of volcanic tremor associated with the eruption of Shishaldin volcano, Alaska 1999,” *Bulletin of Volcanology*, vol. 64, no. 8, pp. 535–547, 2002. [DOI: 10.1007/s00445-002-0228-z](#).

IT Skills

Seismic Software	<ul style="list-style-type: none"> ObsPy, Antelope, Earthworm, Seisan, GISMO. Expertise in designing & implementing seismic monitoring pipelines and integrating into complex software ecosystems.
Coding	<ul style="list-style-type: none"> Python, MATLAB, Perl, C/C++, Fortran77, VisualBasic
Databases	<ul style="list-style-type: none"> MySQL, Datascope.
Web Dev	<ul style="list-style-type: none"> HTML, CSS, PHP, JavaScript, Apache Web Server.
Version Control	<ul style="list-style-type: none"> git, github, svn, cvs.
Systems Admin & Data Management	<ul style="list-style-type: none"> Built and manage a hybrid Linux/Mac network for the USF Seismology Group with 40 TB RAID-6 server. Expert in converting, organizing and archiving large seismic and infrasound datasets.
Software Engineering	<ul style="list-style-type: none"> Analysis, Design, Coding, Testing, Documentation.

References

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