

Glenn Thompson

Curriculum vitae

CONTACT INFORMATION School of Geosciences *Cell:* 907-687-7747
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EDUCATION **Ph.D., Geophysics with Dissertation in Volcano Seismology** 1999
University of Leeds, England, UK
Dissertation title: "Modelling of seismo-volcanic sources"

M.Sc., Geophysics 1995
University of Durham, England, UK

B.Sc. Hons., Theoretical Physics and Mathematics 1993
University of St. Andrews, Scotland, UK

PROFESSIONAL APPOINTMENTS **Research Assistant Professor** 2013 - Present
University of South Florida, Tampa, FL USA

Research Seismologist 2006 - 2013
University of Alaska Fairbanks, AK USA

Senior Geophysicist & Applications Developer 2000 - 2006
British Geological Survey, Nottingham, England

Seismic Network Manager & Deputy Director 2000 - 2003
Montserrat Volcano Observatory, Montserrat, West Indies (employer: British Geological Survey)

Postdoctoral Investigator 1998 - 2000
University of Alaska Fairbanks, AK USA

Systems Analyst/Programmer 1997 - 1998
TNT Express Worldwide, Atherstone, England, UK

Seismologist Summer 1996
Montserrat Volcano Observatory, Montserrat, West Indies (employer: British Geological Survey)

PUBLICATIONS - REFEREED JOURNAL ARTICLES (17) DeRoin, N., McNutt, S.R., and **Thompson, G.** (in press). 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*, doi:10.1016/j.volgeores.2015.01.003

 (16) McNutt, S.R., **Thompson, G.**, West, M.E., Fee, D., Stihler, S., and Clark, E. (2013). Local seismic and infrasound observations of the 2009 explosive eruptions of Redoubt Volcano, Alaska. *Journal of Volcanology and Geothermal Research*, 259, 63-76. doi:10.1016/j.jvolgeores.2013.03.016

 (15) Buurman, H., West, M.E., and **Thompson, G.** (2012). The seismicity of the 2009 Redoubt eruption. *Journal of Volcanology and Geothermal Research*, 259, 16-30. doi:10.1016/j.jvolgeores.2012.04.024

 (14) Schaefer, J.R., ed., (2012), The 2009 eruption of Redoubt Volcano, Alaska, with contributions by Bull, K., Cameron, C., Coombs, M., Diefenbach, A., Lopez, T., McNutt, S., Neal, C., Payne, A., Power, J., Schneider, D., Scott, W., Snedigar, S., **Thompson, G.**, Wallace, K., Waythomas,

C., Webley, P., and Werner, C.: Alaska Division of Geological and Geophysical Surveys Report of Investigation 2011-5, 45 p., available at <http://www.dggs.alaska.gov/pubs/id/23123>.

(13) Miller, V., Voight, B., Ammon, C., Shalev, E., and **Thompson, G.** (2010). Seismic expression of magma-induced crustal strains and localized fluid pressures during initial eruptive stages, Soufriere Hills Volcano, Montserrat. *Geophysical Research Letters*, 37(19)

(12) **Thompson, G.**, and West, M.E. (2010). Real-time Detection of Earthquake Swarms at Redoubt Volcano, 2009. *Seismological Research Letters*, 81(3), 505513. doi:10.1785/gssrl.81.3.505

(11) Lockett, R., Baptie, B., Ottemoller, L., and **Thompson, G.** (2007). Seismic Monitoring of the Soufriere Hills Volcano, Montserrat. *Seismological Research Letters*, 78(2), 192-200. doi:10.1785/gssrl.78.2.192

(10) Taron, J., Elsworth, D., **Thompson, G.**, and Voight, B. (2007). Mechanisms for rainfall-concurrent lava dome collapses at Soufriere Hills Volcano, 2000-2002. *Journal of Volcanology and Geothermal Research*, 160(1-2), 195209. doi:10.1016/j.jvolgeores.2006.10.003

(9) Jaquet, O., Carniel, R., Sparks, S., **Thompson, G.**, Namar, R., and Dicecca, M. (2006). DEVIN: A forecasting approach using stochastic methods applied to the Soufriere Hills Volcano. *Journal of Volcanology and Geothermal Research*, 153(1-2), 97111. doi:10.1016/j.jvolgeores.2005.08.013

(8) Langer, H., Falsaperla, S., Powell, T., and **Thompson, G.** (2006). Automatic classification and a-posteriori analysis of seismic event identification at Soufriere Hills Volcano, Montserrat. *Journal of Volcanology and Geothermal Research*, 153(1-2), 110. doi:10.1016/j.jvolgeores.2005.08.012

(7) Carn, S. A., Watts, R. B., **Thompson, G.**, and Norton, G. E. (2004). Anatomy of a lava dome collapse. *Journal of Volcanology and Geothermal Research*, 131, 241264.

(6) Elsworth, D., Voight, B., **Thompson, G.**, and Young, S. R. (2004). Thermal-hydrologic mechanism for rainfall-triggered collapse of lava domes. *Geology*, 32(11), 969-972. doi:10.1130/G20730.1

(5) Edmonds, M., Oppenheimer, C., Pyle, D. M., Herd, R. A., and **Thompson, G.** (2003). SO₂ emissions from Soufriere Hills Volcano and their relationship to conduit permeability, hydrothermal interaction and degassing regime. *Journal of Volcanology and Geothermal Research*, 124(1-2), 2343. doi:10.1016/S0377-0273(03)00041-6

(4) Langer, H., Falsaperla, S., and **Thompson, G.** (2003). Application of Artificial Neural Networks for the classification of the seismic transients at Soufriere Hills Volcano, Montserrat. *Geophysical Research Letters*, 30(21), 15. doi:10.1029/2003GL018082

(3) Matthews, A. J., Barclay, J., Carn, S., **Thompson, G.**, Alexander, J., Herd, R., and Williams, C. (2002). Rainfall-induced volcanic activity on Montserrat. *Geophysical Research Letters*, 29(13). doi:10.1029/2002GL014863

(2) Jolly, A. D., **Thompson, G.**, and Norton, G. (2002). Locating pyroclastic flows on Soufriere Hills Volcano, Montserrat, West Indies, using amplitude signals from high dynamic range instruments. *Journal of Volcanology and Geothermal Research*, 118(3-4), 299317. doi:10.1016/S0377-0273(02)00299-8

(1) **Thompson, G.**, McNutt, S. R., and Tytgat, G. (2002). Three distinct regimes of volcanic tremor associated with the eruption of Shishaldin Volcano, Alaska 1999. *Bulletin of Volcanology*, 64(8), 535547. doi:10.1007/s00445-002-0228-z

(2) **Thompson G.** (in press). Seismic Monitoring of Volcanoes. In: Michael Beer, Ioannis A.

Kougioumtzoglou, Edoardo Patelli, and Ivan Siu-Kui Au (Eds.) Encyclopedia of Earthquake Engineering. Springer-Verlag Berlin Heidelberg.

(1) McNutt, S.R., **Thompson, G.**, Fee, D., Johnson, J.B., and De Angelis, S. (in press). Seismic and Infrasonic Monitoring, Encyclopedia of Volcanoes, 2nd edition.

PUBLICATIONS -
PEER-REVIEWED
OPEN-FILE
REPORTS

(3) Gunn, D. A., Jackson, P. D., **Thompson, G.** (2005), Fine Scale Structure of Core by Novel Resistivity Imaging. BGS Report No. IR/05/065.

(2) Gunn, D. A., Nelder L. M., Pearson, S., **Thompson, G.**, Carney, J. N., Wallis, H., (2005), Investigating shear wave methods to characterize sand and gravel thicknesses at Holme Pierrepont, Nottingham. BGS Report No. IR/03/116.

(1) Cuss, R. J., **Thompson, G.**, (2003), Ground penetrating radar investigation of the fissuring of the A690 in Houghton-le-Spring , Commissioned Report CR/03/301R, Urban Geoscience and Geological Hazards Programme, British Geological Survey.

TEACHING
EXPERIENCE

University of South Florida

Topics in Volcano-Seismology, GLY6739.032S15, Co-Teacher, Spring 2015
Antelope & MATLAB Programming, GLY6739.016F14 , Teacher, Fall 2014

University of Alaska Fairbanks

Beyond the Mouse, GEOS 692, Co-Teacher, 2009

University of Leeds

Inverse Theory, Teaching Assistant, 1995-1997
PC Skills for Geoscientists, Teaching Assistant, 1995-1997

TECHNICAL
SKILLS

Software analysis & design.
Software project management.
Programming expertise in: MATLAB, Perl, PHP, Python, C/C++, FORTRAN.
Unix/Linux Administration.
Version control: git/github.com, svn, cvs.
Seismic software: Antelope, Earthworm, Seisan, Seislog, GISMO, ObsPy, PITSA.
Database schema design & implementation: MySQL, Antelope.
Management of large, real-time geophysical datasets.

GRADUATE
ADVISEES

| Student | Degree | Role | Dates |
|-------------------|--------|------------------|--------------|
| Heather McFarlin | PhD | Committee Member | 2013-Present |
| Cassandra Smith | MS | Committee Member | 2013-Present |
| Alexandra Farrell | PhD | Committee Member | 2013-Present |
| Chris Bruton | MS | Committee Member | 2010-2013 |
| Helena Buurman | PhD | Committee Member | 2009-2013 |