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| Name | Glenn Thompson |
| Position | Research Assistant Professor |
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| Telephone | [(813) 974-3702](tel:%28813%29%20974-3702) |
| Office | SCA 214 |
| Speciality Area | Volcano-seismology; Volcano-seismic monitoring |
| Research Interests | Cataloging, parameterizing and locating volcanic earthquake swarms, tremor and debris flows; Automatic classification of discrete volcanic-seismic signals; Banded tremor and its relation to hybrid swarms, ascent rate and dome collapses; Rainfall-induced dome collapses; Open-source development of monitoring software including alarm systems and near-real-time analysis tools. |
| Current Graduate students | None |
| Education | B.Sc. Theoretical Physics and Mathematics, St. Andrews, 1993.  M.Sc. Exploration Geophysics, Durham, 1995.  Ph.D. Volcano Seismology, Leeds, 1999. |
| Bio | I began working at the University of South Florida in August 2013, joining well established groups in Volcanology and Geophysics, and a fledging Seismology group. Prior to this research position, I worked in real-time monitoring operations, beginning with 2 months at the Montserrat Volcano Observatory (MVO) in 1996, 2 years at the Alaska Volcano Observatory (AVO) from 1998-2000, then back to MVO for 4 years as the Seismic Network Manager, followed by a return to Alaska for 7 years as a Staff Scientist at AVO and the Alaska Earthquake Center. Most of my work has been developing new, innovative seismic software to enhance seismic monitoring operations and public safety. |
| Recent Publications | Thompson G. “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.  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    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.    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  Buurman, H., West, M.E., and {\bf Thompson, G.} (2012). The seismicity of the 2009 Redoubt eruption. Journal of Volcanology and Geothermal Researchi, 259, 16-30. doi:10.1016/j.jvolgeores.2012.04.024 |
| Recent Abstracts | Thompson, G., (2014). Towards a Comprehensive Catalog of Volcanic Seismicity. EOS Trans., AGU., ..., Fall Meet. Suppl., Abstract ..., December 2014.  Smith, C., McNutt, S.R, and Thompson, G. (2014). Explosion Quakes: The 2007 Eruption of Pavlof. EOS Trans., AGU., ..., Fall Meet. Suppl., Abstract ..., December 2014.  McFarlin, H.L, Christensen, D.H., Thompson, G., McNutt, S.R., Ryan, J.C., Ward, K.M., Zandt, G., and West, M.E. (2014). Receiver Function Analyses of Uturuncu Volcano (Bolivia) and Lastarria/Cordon Del Azufre Volcanoes (Chile). EOS Trans., AGU., ..., Fall Meet. Suppl., Abstract ..., December 2014.  Thompson, G., and McNutt, S.R. (2014). Banded tremor at Soufriere Hills Volcano, Montserrat. Seismo. Soc. Am. Annual Meeting, Anchorage, 30 April - 2 May 2014.  McFarlin, H., Christensen, D., and Thompson, G. (2014). Receiver Function Analyses of Uturuncu Volcano, Bolivia. Seismo. Soc. Am. Annual Meeting, Anchorage, 30 April - 2 May 2014. |
| Teaching | GLY6739.016F14 Antelope & MATLAB Programming  GLY6739.032S15 Topics in Volcano-Seismology |
| Links (optional) | CV  Personal page  Seismology Group page  Volcanology Group page  Profile on Google Scholar, ResearchGate etc. |



Extended Bio:

Following a BSc in Astrophysics and a MSc in Exploration Geophysics I was thrilled to begin studying Volcano Physics in 1994. Within the first year I went to Stromboli and Etna (Italy), Taupo, Rotorua & Ruapehu (New Zealand), Batur (Bali) and Bromo (Java), mostly installing or maintaining seismic networks. At this time the Soufriere Hills on Montserrat began erupting and I got a call from BGS to assist with monitoring the volcano.

That call that changed my life. A few days later I was flying around an exploding volcano in a helicopter with no doors, leading the Operations Room, deploying temporary broadband seismometers, getting bombed out with ash and volcanic hail and watching pyroclastic flows go into the sea, while working and partying hard with some of the biggest names in volcanology. I knew I wanted to work at volcano observatories.

After a short stint in the IT industry I enjoyed a 2 year postdoc at the Alaska Volcano Observatory, where I built the world's first near-real-time, web-based volcano-seismic monitoring system. I then returned to the Montserrat Volcano Observatory where I rebuilt and modernized the entire seismic monitoring programme. This included bringing in Earthworm, merging the analog and seismic networks, securely archiving all the seismic data for the first time and making them available online to researchers via databases, designing the Operations Room in the new observatory and managing this move during a critical stage of the eruption without any loss of data, and securing funding for a new digital seismic network. This work set the foundation on which MVO seismic monitoring relies to this day, and has underpinned countless scientific studies that would otherwise have been impossible.

At MVO I wrote the first system to use seismic amplitudes to locate rockfalls and pyroclastic flows in near-real-time, and use them to map which parts of the dome were actively growing. I implemented a real-time magnitude scale for all events, event spectrograms, a tremor alarm system, and made significant progress towards automated classification of signals.

In 2006 I returned to Alaska where I worked for the Alaska Earthquake Center and Volcano Observatory, monitoring regional and volcanic earthquakes and designing a wide variety of new seismic monitoring systems and tools which are still used today.

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I believe the work I did at MVO ranks alongside the most valuable contributions any scientist has made in Montserrat, and during that time I probably knew more about the seismicity of the Soufriere Hills volcano than anybody else, because I poured over every scrap of data and read every relevant paper I could lay my hands on. It was demanding work, working up to 70 hours a week for long spells and responding to an average of 3 alarms per week, but the privilege of watching pyroclastic flows and doing something that genuinely helped society was more than worth it. The work was challenging and as the leader of the Ops Room I had to make rapid decisions to initiate evacuations, and constantly provide a communications lifeline to those within the exclusion zone, and make frequent recommendations to the civil authorities.

In 2006 I returned to Alaska where I worked for the Alaska Earthquake Center and Volcano Observatory, monitoring regional and volcanic earthquakes and designing a wide variety of new seismic monitoring systems and tools which are still used today. In 2013 I moved to USF Tampa, built the computational infrastructure for our fledgling Seismology group, and am now enjoying a new role, doing research, mentoring students and designing and teaching classes.

My dual-background in IT and volcano-seismology has equipped me with a rare combination of insights and skills and which have enabled me to make significant contributions to volcano and seismological observatories. I want to pass on the lessons I have learned from volcanic crisis management and software development to students and motivate them to succeed in careers in natural hazards mitigation.