

Hélène Le Mével

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EDUCATION

- 2012 - 2016 **Ph.D.** Geophysics - *Department of Geoscience, University of Wisconsin-Madison (USA).*
- 2009 - 2011 **M.S.** Geophysics - *Institut de Physique du Globe de Paris (IPGP, France).*
- 2006 - 2009 **B.S.** Earth and Planetary Sciences - *Université de Nantes (France), including a year (2008-2009) studying abroad at University of Iceland.*

PEER-REVIEWED PUBLICATIONS

Miller, C. A., **Le Mével, H.**, Currenti, G., Williams-Jones, G, Tipoff, B. (in review). 4D Gravity changes at the Laguna del Maule volcanic field: Magma induced stress changes facilitate mass addition. Submitted to *Journal of Geophysical Research*.

Le Mével, H., Gregg, P., Feigl, K. L. (2016). Magma injection into a long-lived reservoir to explain geodetically measured uplift: application to the 2007-2014 unrest episode at Laguna del Maule volcanic field, Chile. *Journal of Geophysical Research*, 121, <http://dx.doi.org/10.1002/2016JB013066>.

Le Mével, H., Feigl, K. L., Córdova, L., DeMets, C., & Lundgren, P. (2015). Evolution of unrest at Laguna del Maule volcanic field (Chile) from InSAR and GPS measurements, 2003 to 2014. *Geophysical Research Letters*, 42(16), 6590-6598, <http://dx.doi.org/10.1002/2015GL064665>.

Singer, B. S., Andersen, N. L., **Le Mével, H.**, Feigl, K. L., DeMets, C., Tikoff, B., Thurber, C., et al. (2014). Dynamics of a large, restless, rhyolitic magma system at Laguna del Maule, southern Andes, Chile. *GSA Today*, 24(12), <http://dx.doi.org/10.1130/GSATG216A.1>.

Feigl, K. L., **Le Mével, H.**, Ali, S. T., Córdova, L., Andersen, N. L., DeMets, C., & Singer, B. S. (2014). Rapid uplift in Laguna del Maule volcanic field of the Andean Southern Volcanic zone (Chile) 2007-2012. *Geophysical Journal International*, 196(2), 885-901, <http://dx.doi.org/10.1093/gji/ggt438>.

PROFESSIONAL EXPERIENCE

- FEB. 2017 - **STAFF SCIENTIST**
Carnegie Institution for Science, Department of Terrestrial Magnetism, Washington D.C.
- AUG. 2016 - **CARNEGIE POSTDOCTORAL FELLOW**
JAN. 2017 *Carnegie Institution for Science, Department of Terrestrial Magnetism, Washington D.C.*
- 2012 - 2016 **GRADUATE RESEARCH ASSISTANT**
University of Wisconsin-Madison, Department of Geoscience
- FALL 2013 **TEACHING ASSISTANT**
University of Wisconsin-Madison, Department of Geoscience
- FALL 2011 **USGS VOLUNTEER**
Hawaiian Volcano Observatory (HVO)
- 2010 - 2011 **M.S. RESEARCH INTERN**
IPGP Space and Planetary Geophysics Lab

FALL 2009 M.S. RESEARCH INTERN
IPGP Seismology Lab

SPRING 2009 B.S. RESEARCH INTERN
University of Iceland, Geophysics division

SELECTED CONFERENCE PRESENTATIONS

TALKS

Le Mével, H & Feigl, K. L. (2016). Ground deformation at Laguna del Maule volcanic field from InSAR measurements: interplay between tectonics and magmatism. *Cities on Volcanoes 9*, Puerto Varas, Chile, November 20-25, 2016.

Le Mével, H., Feigl, K. L., Córdova, L., DeMets, C., & Lundgren, P. (2014, December). Continued Rapid Uplift at Laguna del Maule Volcanic Field (Chile) from 2007 through 2014. In *AGU Fall Meeting Abstracts* (Vol. 1, p. 03).

Le Mével, H., Feigl, K. L., Ali, S. T., Córdova, L., DeMets, C. & Singer, B. (2013). Accelerating unrest within a large rhyolitic magma system during 2007-2013 at Laguna del Maule volcanic field, Chile. *Int. Assoc. of Volcanology and Chemistry of the Earth's Interior (IAVCEI) 2013 Scientific Assembly*, Kagoshima, Japan, July 20-24, 2013.

POSTERS

Le Mével, H & Feigl, K. L. (2016, December). Ground Deformation Revealing Magmato-Tectonic Processes at Laguna del Maule Volcanic Field from Interferometric Radar Measurements. *American Geophysical Union Fall Meeting*, G23A-1029.

Le Mével, H., Gregg, P., & Feigl, K. L. (2015, December). Magma injection models to quantify reservoir dynamics at Laguna del Maule volcanic field, Chile, between 2007 and 2015. In *AGU Fall Meeting Abstracts*.

Le Mével, H., Córdova, L., Ali, S. T., Feigl, K. L., DeMets, C., Williams-Jones, G., Tikoff, B. & Singer, B. S. (2013, December). Unrest within a large rhyolitic magma system at Laguna del Maule volcanic field (Chile) from 2007 through 2013: Geodetic measurements and numerical models. In *AGU Fall Meeting Abstracts* (Vol. 1, p. 2728).

Le Mével, H., Feigl, K. L., Ali, S. T., Córdova, L., DeMets, C., & Singer, B. S. (2012). Rapid uplift During 2007-2012 at Laguna del Maule Volcanic Field, Andean Southern Volcanic Zone. *American Geophysical Union. Program with Abstracts*, V31 B-2786.

Le Mével, H., Diament, M., Doubre, C., Mohamed, K., Deroussi, S., Cadio, C., Ballu, V., Mikhailov, V., Hinderer, J., Luck B., & Masson, F. (2010, December). Mass and density time evolution in the Asal rift from repeated microgravity surveys. In *AGU Fall Meeting Abstracts* (Vol. 1, p. 2157).

GRANTS AND AWARDS

2016 UNIVERSITY OF WISCONSIN-MADISON, DEPARTMENT OF GEOSCIENCE
Schuesser Outstanding Student Research Paper Award, April 2016.

2015 AMERICAN GEOPHYSICAL UNION (AGU) FALL MEETING
Outstanding Student Paper Award (OSPA), Geodesy section, December 2015.

2014 UNAVCO TRAVEL GRANT
InSAR Processing and Theory with GMTSAR Short Course, Boulder, CO (USA), July 21-23, 2014.

2014 UNIVERSITY OF WISCONSIN-MADISON, DEPARTMENT OF GEOSCIENCE
James J. & Dorothy T. Hanks Graduate Student Award in Geophysics.

2013 IAVCEI MEETING REGISTRATION SUPPORT
Scientific Assembly, Kagoshima, Japan, July 20-24, 2013.

2013 UNAVCO TRAVEL GRANT
Finite Element Modeling of Deformation at Volcanoes Short Course, Boulder, CO (USA), May 20-23, 2013.