

CURRICULUM VITAE

RICARDO GARZA GIRÓN

PhD Candidate
Seismology / Volcanology / Polar Geophysics

BORN

November 30th 1988, Mexico City

CONTACT

Earth and Planetary Sciences Department
UC Santa Cruz
1156 High Street
Santa Cruz, CA 95064
phone: (+1) 8312269016
e-mail: ricky.gargir@gmail.com / rgarzag@ucsc.edu
personal website: ricky-gg.github.io

LANGUAGES

Spanish (Native)
English (Fluent)
French (written and spoken, intermediate)

EDUCATION

Universidad Nacional Autónoma de México (UNAM), Mexico City.

(National Autonomous University of Mexico) (August 2014)

Faculty of Engineering

Bachelor's Degree: Geophysics Engineering (Minor: Seismology) *Mención Honorífica*

GPA: 92.6/100; 4th of 120.

Thesis dissertation: Spatial variation of the b value under the Popocatepetl volcano and its relation with the structure of the magma chamber. Advisor: Dr. Ramón Zúñiga, ramon@geociencias.unam.mx

University of California, Berkeley (January 2012 - June 2012)

Student exchange at the Earth and Planetary Science Department.

Courses attended: 101 Field Geology & Digital Mapping; 130 Strong Motion Seismology; 254 Advanced Topics in Seismology (Seminar); Intermediate French. Overall GPA: 3.538

Internship, Centro Nacional de Prevención de Desastres (CENAPRED), Mexico (2013)

National Center for Disaster Prevention of Mexico at the "Special Program for Prevention and Risk Mitigation of Disasters"

University of California, Santa Cruz (September 2015-present)

PhD in geophysics at the Earth and Planetary Sciences Department.

Advisor: Emily Brodsky, brodsky@ucsc.edu

CURRICULUM VITAE

FIELD WORK

Urban geophysics (2011-2012). Electrical resistivity surveys and GPR with the Geophysics Institute of UNAM to determine the structures under archaeological sites, volcanic lava tubes, city malls and others. Mexico City, Mexico.

Reference: Gerardo Cifuentes Nava, gercifue@geofisica.unam.mx

Popocatepetl volcano and the northern Mexican desert (2014). Transient ElectroMagnetics (TEM) and Magnetotellurics (MT). Estado de Mexico, Mexico; Nuevo Leon, Mexico.

Reference: Claudia Arango Galván, claudiar@geofisica.unam.mx

Geothermal exploration field campaign, Michoacan, Mexico (2015). Field leader for the project “Geoscientific study for the geothermal development of the San Bartolome de los Banos, Guanajuato, Mexico and San Agustin del Maiz, Michoacan, Mexico areas”. Activities included the design, deployment and maintenance of a seismic network consisting of 12 broadband instruments as well as executing a regional electromagnetic survey with 85 sites using the TEM (Transient Electro-Magnetic) and MT (Magnetotelluric) methods.

Reference: Prof. Vala Hjorleifsdottir, vala@geofisica.unam.mx

IRIS Wavefield Communal Experiment (2016). Deployment of nodal arrays and broadband seismic stations. Enid, Oklahoma, USA.

Reference: Justin Sweet, justin.sweet@iris.edu

Cook Inlet, Alaska Volcano Observatory (2018). Service of existing seismic/GPS stations as well as analog-to-digital conversion of stations. Mount Spurr, Alaska; Mount Redoubt, Alaska.

Reference: Max Kaufman, amkaufman@alaska.edu

Antarctica (2018). Geophysical surveying using airborne TEM and Nuclear Magnetic Resonance (NMR). Assistance with field work for microbiologists drilling through ice and collecting samples.

Reference: Slawek Tulaczyk, stulaczy@ucsc.edu; Jill Mikucki, jmikicki@utk.edu

Aleutian Islands, Alaska Volcano Observatory (2019). Analog-to-digital conversion campaign. Korovin, Cleveland and Okmok volcanoes, Alaska.

Reference: Max Kaufman, amkaufman@alaska.edu

TEACHING

Teaching Assistant: EART110C- The Dynamic Earth (Geophysics), UC Santa Cruz (**Spring 2017**)

Teaching Assistant: EART110C- The Dynamic Earth (Geophysics), UC Santa Cruz (**Spring 2018**)

Teaching Assistant: EART110C- The Dynamic Earth (Geophysics), UC Santa Cruz (**Spring 2019**)
(*Honorific mention as best TA voted by students*)

Teaching Assistant: EART191C-Applied Geophysics, UC Santa Cruz (**Fall 2019**)

AWARDS

Honorific Mention for bachelor thesis defense, Universidad Nacional Autónoma de México, Facultad de Ingeniería (**2014**)

UC MEXUS-CONACYT Doctoral Fellowship for Mexican Students (**2015**)

Graduate Students Association (GSA) Research and Travel Grant, UC Santa Cruz (**2018**)

CURRICULUM VITAE

Zhen and Ren Wu Memorial Award Fund in Geophysics, UC Santa Cruz (2018)

PUBLICATIONS

Garza Girón, Ricardo. (2014). "Distribución espacial del valor b debajo del Volcán Popocatepetl y su relación con la estructura de la cámara magmática". (Tesis de Licenciatura). Universidad Nacional Autónoma de México, México. Recuperado de <https://repositorio.unam.mx/contenidos/428928>

Garza-Giron, R., Brodsky, E. E., & Prejean, S. G. (2018). Mainshock-aftershock clustering in volcanic regions. *Geophysical Research Letters*, 45, 1370–1378. <https://doi.org/10.1002/2017GL075738>

ABSTRACTS/MEETINGS/WORKSHOPS

Garza-Giron, R. and Zuniga, R.R., Spatial distribution of the b -value under Popocatepetl volcano and its relation with the structure of the magma chamber, AGU Fall Meeting, San Francisco, CA, 2014.

Garza-Giron, R., Brodsky, E.E. and Prejean, S.G., Aftershock productivity as a potential indicator of the style of stress accumulation on volcanoes of Alaska and the Aleutian Islands, AGU Fall Meeting, San Francisco, CA, 2016.

Hjörleifsdóttir, Vala, Shri Krishna Singh, Liliana Martínez-Peláez, **Ricardo Garza-Girón**, Björn Lund, and Chen Ji., Observations of large earthquakes in the Mexican subduction zone over 110 years, EGU General Assembly Conference, Vienna, Austria, 2016.

Workshop for the Advanced School on Physics of Volcanoes, ICTP, Trieste, Italy, 2016.

Ricardo Garza-Giron, Emily E. Brodsky, Stephanie G. Prejean, Aftershock productivity on volcanoes: What can it tell us about interpreting aftershocks?, 10th International Workshop on Statistical Seismology, Wellington, New Zealand, 2017.

Garza-Giron, R., Brodsky, E.E. and Prejean, S.G., Mainshock-aftershocks clustering detection in volcanic regions, AGU Fall Meeting, New Orleans, LA, 2017.

Garza-Giron, R., Brodsky, E.E. and Prejean, S.G., Mainshock-aftershocks clustering in volcanic regions, Workshop on Japan-Kamchatka-Alaska Subduction Processes (JKASP), Petropavlovsk-Kamchatsky, Russia, 2018.

Garza-Giron, R., Brodsky, E.E. and Haney M.M., When does the rock break?: Finding earthquakes during the 2008 Okmok eruption, AGU Fall Meeting, Washington, D.C., 2018.

Auken, Esben, Thue Sylvester Bording, Peter T. Doran, Hilary A. Dugan, Nikolaj Foged, Neil Foley, **Ricardo Garza Giron**, Denys Grombacher, Jill Mikucki, Lars Jensen, Krista Myers, T.J. Rogers, Slawek Tulaczyk, Ross Virginia, An airborne EM survey of the McMurdo Dry Valleys in Antarctica, AGU-SEG Airborne Geophysics Workshop, Davie, Florida, 2019.

Slawek M Tulaczyk, Jill Mikucki, Esben Auken, Denys Grombacher, Hilary A Dugan, Nikolaj Foged, Neil Foley, Ross A Virginia, Peter T Doran, **Ricardo Garza-Giron** and Krista F Myers, Deep subsurface brines in the polar desert of McMurdo Dry Valleys, Antarctica, revealed by a regional AEM (Airborne ElectroMagnetic) survey, AGU Fall Meeting, San Francisco, CA, 2019.

Garza-Giron, R., Brodsky, E.E. , Spica, Z.J. and Haney M.M., Hidden earthquakes as a tool to conduit evolution during an explosive eruption, AGU Fall Meeting, San Francisco, CA, 2019.

SEMINARS

Instituto de Geofísica, Universidad Nacional Autónoma de México (2019)