# Lorna G. Jaramillo Nieves, Ph.D., G.T.

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# **PROFILE:**

Strong believer of the excellence in education and academia. Development of interdisciplinary research and socially relevant.

# **RESEARCH INTEREST:**

- Geologic hazards and environmental geology studies.
- Application of remote sensing techniques to geologic and environmental problems.
- Study of geological events that caused disasters in the history of Puerto Rico.
- Epistemology of science: Study of the construction of knowledge in the geological sciences.
- Ground water modeling.

# **ACADEMIC BACKGROUND:**

University of Colorado, Boulder January 1999-Doctor of Philosophy Degree in Geology December 2003

> Remote sensing evaluation of the regional chemistry and element dispersion of porphyry copper deposits in the Silver

Bell Mountains, Arizona.

Advisor: William Atkinson, Ph.D.

https://www.colorado.edu/geologicalsciences/

University of Puerto Rico at Mayagüez August 1996-

11 credit hours. Master in Science December 1998

> Advisor: Glen S. Mattioli, Ph.D. https://www.uprm.edu/geology/

August 1991-University of Puerto Rico at Mayagüez December 1995

Bachelor of Science Degree in Geology

Magna Cum Laude

Harry Hess Medal: Highest GPA in Class

https://www.uprm.edu/geology/

# **PROFESSIONAL EXPERIENCE:**

University of Puerto Rico at Río Piedras July 2016 -

College of General Studies present

Physical Science Department

**Professor** 

July 2010 -University of Puerto Rico at Río Piedras

June 2016 College of General Studies Physical Science Department

**Associate Professor** 

University of Puerto Rico at Río Piedras August 2004 –

College of General Studies June 2010

Physical Science Department

**Assistant Professor** 

**US Geological Survey** 1999-2003

Southwest Field Office, Tucson, AZ

Geologist GS-09

Describe surficial deposits affected by erosion from active mine areas by identifying alteration zones in the Silver Bell Mountains, Arizona using remote sensing techniques in the visible and infrared regions.

Refine identification criteria of alteration spectra in watersheds associated with mineralized and mined regions for environmental assessment (source, transport criteria, and mineral identification).

Reviews and assists in editing contributions to the hydrologic framework of the US-Mexico Border task.

Assists in supervisor in preparing fiscal year project fieldwork by reviewing maps, aerial photos, and satellite images; research and compile existing map information.

**Environmental** Waterstone Hydrology & 2001

Engineering Inc., Boulder, Colorado

Contract

Translation of hydrology reports and scientific documents: Spanish to English.

Waterways Experiment Station, 1995

US Army Corps of Engineers, Vicksburg, Mississippi

Summer Intern Laboratory assistant Granulometric analysis of selected areas along the Eastern Coast region of the USA.

1992-1993 **Seismic Network of Puerto Rico**, **University of Puerto Rico**, **Mayagüez** 

Data analyst

Collection of seismic activity data from Puerto Rico and the Caribbean Plate.

# **CERTIFICATIONS AND LICENSES:**

Geologist in Training National Association of the State Boards of Geology License Number 077-E

# **EXPERIENCE ON HIGHER EDUCATION:**

Courses offered in the Physical Science Department, College of General Studies, University of Puerto Rico, Río Piedras:

- Foundations of Physical Sciences for Students in the Special Education and Grade School Education Program of the Faculty of Education (CIFI 3005)
- Evolution of the Earth (CIFI 3026), Team Teaching (Part of the course group creator)
- Energy, Conservation, and Environment (CIFI 3036)
- Foundations and development of the physical sciences I and II (CIFI 3055, CIFI 3065)
- Interdisciplinary Topics in Physical Sciences: Development of Chemistry (CIFI 4995)
- Interdisciplinary Topics in Physical Sciences: Human aspects of geologic events (CIFI 4995), Course creator. Currently revised as Geologic Processes, Disasters, and their Effects on Society (CIFI 4065)

Course offered in other department, colleges or schools by invitation:

- **Physical Geology (CINA 4147),** Environmental Sciences Department, College of Natural Sciences, University of Puerto Rico, Río Piedras
- Land use and management planning (CINA 4167), Environmental Sciences Department, College of Natural Sciences, University of Puerto Rico, Río Piedras
- Epistemological foundations of Physical Sciences (ESGE 4186) College of General Studies, University of Puerto Rico, Río Piedras
- **Hydrogeology of Puerto Rico (GEOG 4041),** Geography Department, College of Social Sciences, University of Puerto Rico, Río Piedras
- Risk and Natural Hazards (PLAN 6003), Graduate Planning School, University of Puerto Rico, Río Piedras

# Courses offered as research assistant:

- Introduction to Petrology Laboratory (GEOL 3020), Geological Sciences Department, College of Art and Sciences, University of Colorado at Boulder
- **Geology for Engineers Laboratory (GEOL 4015),** Geology Department, College of Art and Sciences, University of Puerto Rico, Mayaguez

#### K-12 TEACHING EXPERIENCE:

**Alliance for Minority Participation Summer** 

**Program** 

Summer, 2007 Luis Muñoz Rivera High School, Utuado, Puerto Rico Summer, 2006 Luis Muñoz Marín High School, Yabucoa, Puerto Rico Summer, 2005 Josefina León Zayas High School, Jayuya, Puerto Rico

**Institute 2000** 

Spring and Geology and Environmental Problems Workshop

Summer 2006 University of Puerto Rico, Río Piedras

**MENTORING:** 

Fall 2019 - Characterization and Formation of Beach Rock in

Spring 2023 **Puerto Rico.** 

Kevian A. Pérez Valentín

**Doctoral Thesis** 

Department of Environmental Sciences

College of Natural Sciences

University of Puerto Rico, Río Piedras

Committee Member

Fall 2016 - The Impact of Human Migration on Land

Spring 2022 Use and Water Quality

Marianne Cartagena Colón

**Doctoral Thesis** 

Department of Environmental Sciences

College of Natural Sciences

University of Puerto Rico, Río Piedras

**Committee Member** 

Spring 2014-15 Research Project: Relevance of the 1918 Earthquake

in Puerto Rico for the present

Joel Soto Melecio

Undergraduate Research Experience

Program of General Studies College of General Studies

University of Puerto Rico, Río Piedras

Committee Chair

Spring 2014-15 **Research Project: Relevance of the 1918 Earthquake** 

in Puerto Rico for the present

Elenis García Marcano

Undergraduate Research Experience

Program of General Studies College of General Studies

University of Puerto Rico, Río Piedras

Committee Chair

Spring 2010-11 Yabucoa Valley Agricultural Reserve: Implication

analysis and recommendation for use and planning

Angeliz Encarnación Burgos

Master's Thesis

Planning Graduate School

University of Puerto Rico, Río Piedras

Committee Member

Fall 2008-09 Groundwater and flow modeling of the Yabucoa Aquifer, Puerto Rico: a case study for the tropics.

Ernesto Olivares and Angeliz Encarnación Burgos

Research assistants

Planning Graduate School

University of Puerto Rico, Río Piedras

Committee Member

HIGHER EDUCATION ADMINISTRATIVE EXPERIENCE:

Spring, 2019- Assistant Dean of Research

Spring 2023 Office if the Dean for Graduate Studies and Research

University of Puerto Rico, Río Piedras

Spring, 2018- Interim Chair

Spring, 2019 Department of Physical Sciences

College of General Studies

University of Puerto Rico, Río Piedras

Spring 2015 - Editor in Chief, Umbral Journal

Summer 2019 College of General Studies

University of Puerto Rico, Río Piedras Interdisciplinary peer-review journal

ISNN 2151-8386

http://umbral.uprrp.edu/revista

Fall, 2011- Associate Dean of Academic Affairs

Summer, 2013 College of General Studies

University of Puerto Rico, Río Piedras

**Engineering Program Coordinator** 2009-

College of General Studies Summer 2011

University of Puerto Rico, Río Piedras

Task included student orientation on curriculum

requirements, program administrative activities, outreach,

and faculty hiring.

**Umbral Project Director** 2008-2009

College of General Studies

University of Puerto Rico, Río Piedras

The Umbral project is a digital platform dedicated to the transdisciplinarity and proposes an activity of constant exchange and creation of knowledge. The platform has the purpose to promote the creation of a knowledge network and

intellectual collaboration. http://umbral.uprrp.edu

UNIV. OF PUERTO RICO, RIO PIEDRAS CERTIFICATIONS:

Spring semester Online module: Certification on the Construction of

virtual learning environments

Center of Academic Excellence Office of Academic Affairs

Fall semester Online module: Training on personnel matters for

department directors and personnel committee

(Cert. No. 032, Year 2002-2003, Administrative Board)

**RESEARCH TRAINING AND CERTIFICATIONS:** 

2019

2017

**Broader Ethical Considerations for Hazards and** December 2020

**Disaster Researchers** 

Natural Hazards Engineering Research Infrastructure (NHERI), Natural Hazards Center, University of Colorado,

Boulder.

December 2020 Social and Behavioral Responsible

Present **Conduct of Research** 

CITI Program, (ID 58378)

**CITI Conflicts of Interest - Conflicts of Interest** July 2019

July 2023 CITI Program, (ID 108342) September 2019-September 2024 Social & Behavioral Research - Basic/Refresher -

Social & Behavioral Human Research

CITI Program, (ID 58345)

# **CONFERENCE COORDINATIONS:**

November 20-22, Earth Sciences and Human Activity

2008 Conference

**International Year of Planet Earth Conference** 

University of Puerto Rico, Río Piedras

Conference Coordinator www.yearofplanetearth.org

April 18-25, 2007 Gaia and Climate Change, International Congress

University of Puerto Rico, Río Piedras

**Program Coordinator** 

# GENERAL, TECHNICAL AND SPECIALIZED SKILLS:

- Experience in grant submission to the National Aeronautics and Space Agency (NASA), the National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF), the National Endowment for the Humanities (NEH), the Spencer Foundation, and Humanities Puerto Rico.
- Experience in compliance with federal regulations for research with human subjects, use of vertebrate for research and substance/material management for research.
- Knowledge in writing and management of research agreements such as Memorandum of Understanding (MOU) and Material Transfer Agreement (MTA), in addition to protocols for the participation of human subjects in research.
- Knowledge in geoscience programs and software, including MODFLOW, ENVI, ArcView, Arc Info, and QGIS.
- Experience with academic platforms such as Blackboard, Edu 2.0, and Moodle.
- Experience managing digital platforms and peer journal indexing such as Latindex, REDIB, and Open Journal Systems (OJS).
- Public speaking

#### LANGUAGES:

- Spanish (Native Speaker)
- English (Second language, fluent orally and written)
- French (Novice)

# **PROFESSIONAL AFFILIATIONS:**

- American Geophysical Union (AGU)
- Geological Society of America (GSA)

- Seismological Society of America (SSA)
- Geological Society of Puerto Rico (SGPR, Spanish acronym)
- Society for the Advancement of Chicanos and Native Americans in Sciences (SACNAS)

#### **COMMUNITY SERVICE**

January 2020-present USGS and the Puerto Rico Seismic Network Liaison

Coordination Resources of the Response and Recover Phase Meetings with the Puerto Rico Government after the seismic

sequence of December 2019 and January 2020.

2020- present Volunteer

US Geological Survey Volunteer, USGS

# NATIONAL AND INTERNATIONAL COLLABORATIONS:

2023 National Science Foundation, NSF

Panel Reviewer

2022 Evaluator, Fifth Grant Competition, Sloan Scholar

Mentoring Network

https://sloan-scholars.ssrc.org/page/grants

2020- present Editorial Board Member, Umbral Journal

http://umbral.uprrp.edu/revista/

https:/revistas.upr.edu/index.php/umbral

2020 Evaluator, Third Grant Competition, Sloan Scholar

Mentoring Network

https://sloan-scholars.ssrc.org/page/grants

2014 – 2020 Evaluator for the National Fund for Innovation and

Scientific and Technological Development (FONDOCyT, for its acronym in Spanish), International System of Higher Education, Science, and Technology, Dominican Republic.

2009-2011 Editor for a Special Issue in the Environmental

Geochemistry and Health,

3rd Hemispherical Conference on Medical Geology

<u>Citation: Jaramillo-Nieves, L.G. and Finkelman, R., Eds.,</u> <u>2012, Special Issue: Current Research in Medical Geology</u>

and Environmental Geochemistry, vol. 34, no. 2,

Environmental Geochemistry and Health, ISSN: 0269-4042

(Print) 1573-2983 (Online)

2005 Collaborator with the <u>Iberoamerican Program for</u>

<u>Science, Technology and Development (Programa</u> <u>Iberoamericano de Ciencia y Tecnología para el Desarrollo,</u> CYTED)

# **COMPLETED PROJECTS:**

2014 - 2018

# Research on the relevance of the Puerto Rico 1918 Earthquake for today's society.

Synopsis: Research on the importance of the earthquake of 1918 in Puerto Rico through the study of historic documents. Product: Book publication, August, 2018 and presentation at the GSA Annual Meeting 2018
Role: Principal Investigator

July – December 2019

# One community at a time: Local History, Regional Geology, and Social Science as a Foundation for Resilience in Communities in Puerto Rico after Hurricane María

<u>Synopsis:</u> Research and service project for the resilience of communities in Puerto Rico after hurricane María.

<u>Product:</u> Documental and conference and presentation at the AGU Fall Meeting 2019

Role: Principal Investigator

July 2021-June 2023

# Seismic activity in Puerto Rico and the protection of cultural heritage.

Synopsis: Dissemination of the history of seismic events in Puerto Rico, the memory of disaster and the effects of seismic activity on the cultural heritage in Puerto Rico through radio programs.

Collaborators: Dra. Ramonita Vega Lugo, History Program, Department of Social Sciences, College of Arts and Sciences, University of Puerto Rico, Mayagüez; Eng. José Izquierdo Encarnación, PORTICUS, Puerto Rico; Dra. Libia González López, Department of Humanities, College of General Studies, University of Puerto Rico, Río Piedras; Dra. Jenniffer Santos Hernández, Center for Social Research, College of Social Sciences, University of Puerto Rico, Río Piedras; Dra. Nadja Ríos Villarini, English Department, College of General Studies, University of Puerto Rico, Río Piedras; Dra. Mayra Jiménez, School of Architecture, University of Puerto Rico, Río Piedras; Dr. José J. Colón Morera, Department of Social Sciences, College of Social Sciences, Universidad de Puerto Rico, Río Piedras; Lcdo. José R. Cepeda Borrero, Interamerican University, Ponce; Arg. Eliot Santos Negrón, School of Architecture, University of Puerto Rico, Río Piedras.

<u>Products</u>: Digital materials of all radio programs and their allocation in digital repositories, Digital Book, Web page: <u>Seismic activity in Puerto Rico and the protection of cultural heritage</u>

Role: Project Director

#### **CURRENT PROJECTS:**

November 2020-Present

# **Risk Communication in Concurrent Disasters**

Synopsis: Research project on risk communication of concurrent events in Puerto Rico, including hurricanes, landslides, an earthquake sequence and the COVID-19 pandemic.

<u>Expected outcomes:</u> Publications and creation of collaborative products with involved communities for risk communication.

Role: Co-PI

<u>PI:</u> Jenniffer M. Santos Hernández, Ph.D., Center for Social Research, College of Social Sciences, University of Puerto Rico, Río Piedras

<u>Co-PIs:</u> Sarah McBride Ph.D., Social Science Coordinator for Shake Alert, U.S. Geological Survey, Nnenia Campbell. Ph.D., Natural Hazards Center, University of Colorado, Boulder.

NSF Award #1635593

#### **BOOKS:**

**Jaramillo Nieves**, **L.G.**, **2023**, <u>La actividad sísmica en Puerto Rico y la protección del patrimonio (Seismic Activity in Puerto Rico and the Protection of Heritage)</u>, Funded by Humanities Puerto Rico and the *National Endowment of the Humanities*.

**Jaramillo Nieves, L.G., 2018**, El terremoto en Puerto Rico: lecciones cien años después (The Earthquake in Puerto Rico: lesson one hundred years later), Hato Rey, Puerto Rico, Publicaciones Puertorriqueñas. ISBN 978-1-62537-282-6.

# PEER REVIEW PUBLICATIONS:

**Jaramillo Nieves, L.G., 2012,** Estudios de casos para la discusión de movimientos de masas e inestabilidad de taludes en el Caribe (Case Studies for the Discussion of Mass Wasting and Slope Stability in the Caribbean), in *Deslizamientos: Efectos, evaluación y Gestión de Riesgo. Lecciones aprendidas de América Latina y el Caribe*, UNESCO, Eds. Ellis, J., Guardado Lacaba, R. Y Sánchez Boschini, I., pp. 43-54.

**Jaramillo, L.G. y Ge, S., 2012,** Groundwater Modeling of the Silver Bell Mountains, Arizona, USA, Environmental Earth Sciences, Vol. 66, no. 7, pp. 1933-1941. 10.1007/s12665-011-1418-9

**Jaramillo Nieves, L.G., 2010,** Consideraciones sobre la vulnerabilidad en zonas urbanas de Puerto Rico ante la ocurrencia de eventos geológicos (Vulnerability Considerations of Urban Zones in Puerto Rico due to Geologic Events), REVISTA UMBRAL, N.3 pp. 47-61 ojs.uprrp.edu/index.php/umbral ISSN 2151-8386 Universidad de Puerto Rico Recinto de Río Piedras

Mattioli, G., Jansma, P., Jaramillo, L., Smith Alan, 1996, A desktop image processing and photogrammetric method for rapid volcanic hazard mapping: application to air-photo interpretation of Mount Pelée, Martinique, Bulleting of Volcanology, vol. 58, no.5, pp.401-410.

**Jaramillo, L., Mattioli, G., Jansma, P.E., Smith, A., 1995,** Sector collapse in island arc volcanoes and implications for hazard assessment: a digital topographic and bathymetric investigation of Qualibou Depression, St. Lucia, Lesser Antilles, EOS Trans. Am. Geophys. Union, vol. 76, no. 17, pp. 309.

Mattioli, G., Jansma, P.E., Jaramillo, L., and Smith, A., 1995, Sector Collapse in island arc volcanoes: a digital topographic and bathymetric investigation of the Qualibou depression, St. Lucia, Lesser Antilles, Caribbean Journal of Science, vol. 31 no.3, pp.163-173.

# **CONFERENCE PROCEEDINGS:**

**Jaramillo Nieves**, **L.G.**, "Investigación sobre la relevancia del terremoto del 1918 en Puerto Rico para la actualidad" (Research on the relevance of the 1918 earthquake in Puerto Rico), VII International Symposium on General Studies, November 4-6, 2017, San Juan, Puerto Rico, in *Documentos*, No. 23, ISSN 0378 956X, pp.645-662. <a href="http://www.rideg.org/wp-content/uploads/2015/08/memoriasvii.pdf">http://www.rideg.org/wp-content/uploads/2015/08/memoriasvii.pdf</a>

**Jaramillo Nieves, L.G.**, "Agua, el recurso universal sin un lenguaje universal. La complejidad del manejo del agua causada por las percepciones humanas" (Water, the universal resource without a universal language. The complexity of water management due to human perceptions), V International Symposium on General Studies, November 6-9, 2013, San Juan, Puerto Rico <a href="http://www.rideg.org/wpcontent/uploads/2014/04/Agua-un-recurso-universal-sin-un-lenguaje-universal-La-complejidad-del-manejo-del-agua-causada-por-las-percepciones-humanas.pdf">http://www.rideg.org/wpcontent/uploads/2014/04/Agua-un-recurso-universal-sin-un-lenguaje-universal-La-complejidad-del-manejo-del-agua-causada-por-las-percepciones-humanas.pdf</a>

Jaramillo Nieves, L.G., "Curso Temas Interdisciplinarios de la Ciencias Físicas: Aspectos humanos de los eventos geológicos, CIFI 4995" (Course: Interdisciplinary Topics in Physical Sciences: Human Aspects of Geologic Events, CIFI 4995), V International Symposium on General Studies, November 6-9, 2013, San Juan, Puerto Rico <a href="http://www.rideg.org/wp-content/uploads/2014/04/Curso-Temas-Interdisciplinarios-de-la-Ciencias-F%C3%ADsicas-Aspectos-humanos-de-los-eventos-geol%C3%B3gicos.pdf">http://www.rideg.org/wp-content/uploads/2014/04/Curso-Temas-Interdisciplinarios-de-la-Ciencias-F%C3%ADsicas-Aspectos-humanos-de-los-eventos-geol%C3%B3gicos.pdf</a>

**SELECETED ORAL PRESENTATIONS AND PROFESSIONAL WORKSHOPS: Jaramillo Nieves, L.G.,** Invited presentation. Panel Decolonizing Disasters: Centering Local Power for Resilience, July 9-12, 2023, Natural hazards Center Workshop, Broomfield, Colorado.

**Jaramillo Nieves, L.G.,** Invited: Lessons Learned as a Geoscience Communicator During the 2020-2021 Southwest Puerto Rico Seismic Sequence. Seismological Society of America Annual Meeting, April 18, 2023, <a href="https://seismosoc.secure-platform.com/a/solicitations/28/sessiongallery/763/application/9971">https://seismosoc.secure-platform.com/a/solicitations/28/sessiongallery/763/application/9971</a>

Santos-Hernández, J.M., Campbell, N.M., McBride, S.K., **Jaramillo-Nieves, L.G.**, Vidal-Franceshi, F.J., Figueroa-Huertas, A.M. Méndez-Heavilin, A.J., Márquez=López, G.N., Rivera-Rivera, C.G. Torres-Febre, R.J., Vélez Rosario, J., Behavioral Responses to the 2020-2021 Southwest Puerto Rico Earthquake Sequence: Information-Seeking, Rumors, and Protective Action Decision-Making, America Annual Meeting, April 18, 2023, <a href="https://seismosoc.secure-platform.com/a/solicitations/28/sessiongallery/763/application/9556">https://seismosoc.secure-platform.com/a/solicitations/28/sessiongallery/763/application/9556</a>

**Jaramillo Nieves, L.G.,** The 2019-2020 Southwestern Puerto Rico Earthquake Sequence and the Intersection Between Geoscience Research, Education, and Communication, Virtual Panel on Seismic Hazard Communication and Education during the 2020 Puerto Rican earthquake sequence, U.S. Geological Survey Earthquake Science Center, April 28, 2021. <a href="https://earthquake.usgs.gov/contactus/menlo/seminars/1327">https://earthquake.usgs.gov/contactus/menlo/seminars/1327</a>

**Jaramillo Nieves, L.G.,** Assisting the Puerto Rico Seismic Network as a Science Communicator During the 7 January 2020 S of Indios Earthquake in Puerto Rico, Seismological Society of America, Virtual Meeting, April 19-23, 2021. <a href="https://seismosoc.secure-platform.com/a/solicitations/24/sessiongallery/373/application/6614">https://seismosoc.secure-platform.com/a/solicitations/24/sessiongallery/373/application/6614</a>

Jaramillo Nieves, L.G., Similarities between the 1918 earthquake and the 2019-2020 Seismic Sequence South Puerto Rico: Lessons for the Construction of Seismic Awareness in Puerto Rico, Historical Research Center, Department of History, College of Humanities, University of Puerto Rico, Rio Piedras, June 25, 2021. <a href="https://www.facebook.com/CIHUPR/posts/1382064765510701">https://www.facebook.com/CIHUPR/posts/1382064765510701</a> <a href="https://www.youtube.com/watch?v=1lTcoji3OkU">https://www.youtube.com/watch?v=1lTcoji3OkU</a>

**Jaramillo Nieves, L.G.,** How I managed to talk about disasters to the general public, Share your Science Backstory, Geological Society of America Annual Meeting, Virtual Meeting, September 1-17, 2020.

**Jaramillo Nieves**, **L.G.**, The importance of local history and memory of seismic events in Puerto Rico, Disaster and Society Conference Series: contributions from the social sciences, Center for Social Research, College of Social Sciences, University of Puerto Rico, Río Piedras, October 6, 2020.

**Jaramillo Nieves, L.G., Lugo Bendezú, R. and West, J.,** Partnerships for Natural Hazards Preparedness in Puerto Rico, 45th Natural Hazards Research and Application Workshop, July 12-15, 2020, Virtual Conference, Natural Hazards Center, University of Colorado Boulder,

https://hazards.colorado.edu/workshop/2020/session/partnerships-for-natural-hazards-preparedness-in-puerto-rico?row=28

**Jaramillo Nieves, L.G.,** "El terremoto en Puerto Rico, lecciones cien años después, el uso de la historia puertorriqueña para acciones de prevención en comunidades de Puerto Rico" (The 1918 earthquake in Puerto Rico, lessons one hundred years later. Using Puerto Rican history for preventive action in communities of Puerto Rico), II Symposium of Disaster Risk Management and Coping with Climate Change, *in* XII International Convention on Environment and Development, Havana, Cuba, July 3, 2019. <a href="http://www.cubambiente.com/es/default/principal">http://www.cubambiente.com/es/default/principal</a>

**Jaramillo Nieves**, **L.G.**, "Communicating Seismic Hazards to the General Public with the Arts and Local History in Puerto Rico", Geological Society of America Annual Meeting, Indianapolis, Indiana, September 6, 2018. https://gsa.confex.com/gsa/2018AM/webprogram/Paper320020.html

**Jaramillo Nieves, L.G.,** "Conversatorio sobre experiencias durante un terremoto en nuestra región de Latinoamérica y el Caribe basada en las vivencias de los panelistas", Seminar, College of General Studies, University of Puerto Rico, Río Piedras Campus, August 31, 2016, <a href="https://umbral.uprrp.edu/seminarios/seminario-de-investigacion-interdisciplinaria/aspectos-humanos-de-los-eventos-geologicos/">https://umbral.uprrp.edu/seminarios/seminario-de-investigacion-interdisciplinaria/aspectos-humanos-de-los-eventos-geologicos/</a>

**Jaramillo Nieves, L.G.,** "Acuíferos y recursos subterráneos," Workshop for Inspectors in the Ground Water Injection Program, Environmental Protection Agency (EPA), San Juan, Puerto Rico, August 19, 2015.

**Jaramillo Nieves, L.G.,** "El terremoto de Japón y lecciones para Puerto Rico", Seminar, College of General Studies, University of Puerto Rico, Río Piedras Campus, March 25, 2011. <a href="https://umbral.uprrp.edu/seminarios/seminario-de-educacion-general/terremoto-del-japon-v-lecciones-para-puerto-rico/">https://umbral.uprrp.edu/seminarios/seminario-de-educacion-general/terremoto-del-japon-v-lecciones-para-puerto-rico/</a>

**Jaramillo Nieves, L.G.,** "Cartografía de los riesgos por movimientos de laderas y taludes" (Landslide Risk Cartography), Geodynamic and Climatic Risk in the Dominican Republic and the Caribbean Workshop, University of Santo Domingo, sponsored by the Science Academy, Dominican Republic, September 6-9, 2010.

**Jaramillo Nieves, L.G.,** Conceptual model design for the Yabucoa aquifer groundwater modeling, 25th Annual Symposium of Caribbean Geology, Geology Department, University of Puerto Rico, Mayaguez, February 24-27, 2010.

**Jaramillo Nieves, L.G.,** Conceptual model design for the Yabucoa aquifer groundwater model, 3rd Hemispherical Conference on Medical Geology, Sponsored by the International Medial Geology Association, Uruguay, October 13-17, 2009.

**Jaramillo Nieves**, **L.G.**, "La educación general y el desarrollo del pensamiento: De la deriva continental a la teoría de tectónica de placas", *9no Encuentro Internacional de Educación y Pensamiento*, Ponce, Puerto Rico, April 16-18, 2008

**Jaramillo Nieves, L.G.,** "Casos seleccionados en Puerto Rico para la discusión de movimientos de masas e inestabilidad de talud" (Selected cases from Puerto Rico for the discussion of mass movement and slope stability), International Seminar: "Estudio de la peligrosidad y gestión de riesgos por movimientos en laderas inestables", sponsored by UNESCO, CYTED, and INTER, Managua, Nicaragua, November 12-16, 2007

**Jaramillo Nieves**, **L.G.**, "Inestabilidad de laderas: aspectos científicos y planificación" (Slope Stability: scientific and planning aspects), International Seminar: "*Estudio de la peligrosidad y gestión de riesgos por movimientos en laderas inestables*", sponsored by UNESCO, CYTED, and INTER, Managua, Nicaragua, November 12-16, 2007

**Jaramillo Nieves**, **L.G.**, Lithosphere, biosphere, and other spheres: between the Earth and evolution, 2007, International Congress: Gaia and climate change, University of Puerto Rico, Río Piedras, April 19-21, 2007.

**Jaramillo Nieves**, **L.G.**, Remote sensing evaluation of regional chemistry and element dispersion of porphyry copper deposits in the Silver Bell Mountains, Arizona, 17th Caribbean Geological Conference, Geology Department, Univ. of Puerto Rico, Mayagüez, July17-21, 2005, San Juan, P.R.

**Jaramillo Nieves**, **L.G.**, Consideration of natural disasters in the Caribbean: geologic factors and implications for planning, International Seminar of Natural Disasters and Emergencies, Santo Domingo, Dominican Republic., March 17-18, 2005.

**Jaramillo Nieves, L.G.,** Geology and physiography of Puerto Rico, Workshop for Inspectors in the Ground Water Injection Program, Environmental Protection Agency (EPA), Experimental Station, San Juan, Puerto Rico, December 2004.

# **POSTER PRESENTATIONS:**

**Jaramillo-Nieves, L.G.**; How I managed to talk about disasters to the general public, Science and Society: Science Communication Practice, Research, and Reflection II Session, American Geophysical Union Fall Meeting, Virtual Meeting, December 11, 2020.

**Jaramillo-Nieves, L.G.**; Briones, F.; Davis, L.A.; Leckey, E.H.; Vachon, R., One Community at a Time: Local History, Regional Geology, and Social Science as a Foundation for Resilience in Communities in Puerto Rico after Hurricane María, AGU Fall Meeting, San Francisco, December 9-13, 2019.

**Jaramillo Nieves**, **L.G.**, "El terremoto en Puerto Rico, lecciones cien años después, el uso de la historia puertorriqueña para acciones de prevención en comunidades de Puerto Rico" (The 1918 earthquake in Puerto Rico, lessons one hundred years later. Using Puerto Rican history for preventive action in communities of Puerto Rico), II Symposium of

Disaster Risk Management and Coping with Climate Change, *in* XII International Convention on Environment and Development, Havana, Cuba, July 1-5, 2019. http://www.cubambiente.com/es/default/principal

**Jaramillo Nieves, L.G.**, Atkinson, W. Jr., and Gray, F., Remote Sensing evaluation of element dispersion characteristics of porphyry copper deposits in the Silver Bell Mountains, Geological Society of America, Cordilleran Section, 99<sup>th</sup> Annual Meeting, Puerto Vallarta, Mexico, April 1-3,2003.

# PRESENTATIONS AND PUBLICATIONS FOR THE GENERAL PUBLIC: **Jaramillo Nieves**, **L.G.**, Climate Change and Islands, Food Security and the Church, *3er Encuentro Latino de Educación Teológica (3ELECT)*, June 4, 2021,

**Jaramillo Nieves**, **L.G.**, 2020, January 7 Seismic Sequence and Individual Lessons, Hola MT, Journal of Medical Technologist of Puerto Rico, Vol. 37, No. 1, p.17-23, <a href="https://portal.tecnologosmedicos.org/publication/hola-mt1-2020/">https://portal.tecnologosmedicos.org/publication/hola-mt1-2020/</a>

**Jaramillo Nieves**, **L.G.**, January 7 Seismic Sequence in Southwest Puerto Rico, NUC University, Mayaguez, Puerto Rico, January 1st, 2020. [Presentation]

**Jaramillo Nieves**, **L.G.**, The Earthquake in Puerto Rico: lesson one hundred years later (*El terremoto de Puerto Rico, lecciones cien años después*), Find your place at the library, Library System, University of Puerto Rico, April 20-25, 2020. [Presentation]

**Jaramillo Nieves, L.G.,** Seismic Activity in Puerto Rico, what is it and how to prepare (*Actividad sísmica en Puerto Rico: ¿Qué es y cómo prepararse?*), Santander Bank, San Juan, Puerto Rico, January 28, 2020, (After the 2019-2020 Puerto Rico Seismic Sequence). [Presentation]

US Geological Survey, University of Puerto Rico, and Natural Hazards Center, Landslides Guide for Residents in Puerto Rico, <a href="https://hazards.colorado.edu/uploads/documents/PuertoRico LandslideGuide 2020.pdf">https://hazards.colorado.edu/uploads/documents/PuertoRico LandslideGuide 2020.pdf</a> Role in publication: Reviewer [Publicaction]

Acevedo Vélez, G.D., Archilla Pagán, L.A., Barreto Vélez, T., Castillo Carrasco, A., González Albó, A., Chan Santiago, J., Ramírez Rivera, C., Rodríguez Acevedo, X., Figueroa Muñiz, M.J., Machargo Pérez, A.J., Gorbea Finalet, R., Jaramillo Nieves, L.G., Peraza Díaz, P. y Velázquez Lamela, D., 2018, Geologic vulnerability in Puerto Rico and hurricane María (La vulnerabilidad geológica de Puerto Rico y el huracán María), Intersecciones No. 2., [Publicaction]

# **RADIO SEGMENTS:**

**Jaramillo Nieves**, **L.G.**, **Vega Lugo**, **R.**, **and Colón Morera**, **J.J.**, The importance of history for the study of disasters, <a href="https://podcasts.apple.com/us/podcast/la-importancia-de-la-historia-para-el-estudio/id1511178129?i=1000549709441">https://podcasts.apple.com/us/podcast/la-importancia-de-la-historia-para-el-estudio/id1511178129?i=1000549709441</a>

https://www.listennotes.com/podcasts/hilando-fino/la-importancia-de-la-nXe59LHRPE3/

https://podcasters.spotify.com/pod/show/hilandofino/episodes/La-importancia-de-la-historia-para-el-estudio-de-los-desastres-220201-e1dnavh, January 25, 2022. Complete one hour program

Jaramillo Nieves, L.G., Ríos Villarini, N., Santos Hernández, J., and Colón Morera, J.J., The memory of events that caused disasters in Puerto Rico, <a href="https://www.listennotes.com/podcasts/hilando-fino/la-memoria-de-eventos-que-NtVFGKADyMi/">https://www.listennotes.com/podcasts/hilando-fino/la-memoria-de-eventos-que-NtVFGKADyMi/</a>

https://open.spotify.com/episode/2zNhweUXIKSomzddRmkfq9, February 8, 2022. Complete one hour program

**Jaramillo Nieves, L.G., Izquierdo Encarnación, J., and Colón Morera, J.J.,** Methods for the protection of structures against seismic events, <a href="http://www.wrtu.pr/programas/hilandofino/">http://www.wrtu.pr/programas/hilandofino/</a>, March 10, 2022. Complete one hour program

Jaramillo Nieves, L.G., González López, L., Jiménez Montano, M., and Colón Morera, J.J., Cultural heritage and the seismic sequence in Puerto Rico, <a href="http://www.wrtu.pr/programas/hilandofino/">http://www.wrtu.pr/programas/hilandofino/</a>, May 5, 2022. Complete one hour program

**Jaramillo Nieves, L.G. and Guilbe, C.,** The seismic activity in Puerto Rico, Hilando fino, <a href="http://www.wrtu.pr/programas/hilandofino/">http://www.wrtu.pr/programas/hilandofino/</a>, January 18, 2020. Complete one hour program

**Jaramillo Nieves**, **L.G.**, Terremoto en Puerto Rico el 11 de octubre de 1918; Lecciones 100 años después (*The Earthquake in Puerto Rico: lesson one hundred years later*), Hilando fino, <a href="http://www.wrtu.pr/programas/hilandofino/">http://www.wrtu.pr/programas/hilandofino/</a>, September 16, 2019. Complete one hour program

**Jaramillo Nieves, L.G.,** Expert analysis on tsunami phenomena in Puerto Rico, Analysis Segment, Today in the News, Radio Universidad (WRTU), December, 2007.

# INSTITUTIONAL FUNDS AS PRINCIPAL INVESTIGATOR:

Summer, 2011

Summer Fellowship for Overseas Research

Granted by the *Iniciativas de Investigación y Actividad Creativa Subgraduada, iINAS*, (Research Initiatives and Undergraduate Creative Activities) and the Department of Education for the development of research at the undergraduate level.

Study of mass wasting related to the geology and hydrology of areas in Barranquilla, Colombia

Funds: \$4,563.95

Groundwater and flow modeling of the Yabucoa Aquifer, 2008-2010

Puerto Rico: a case study for the tropics.

Funds: \$24,964.00

### **EXTERNAL FUNDS AS SUBAWARD:**

June, 2019 Project Biology with X-Rays Lasers, The Research

Present Foundation of the State University of New York, Dr. Edward Snell (PI), Dr. Lorna G. Jaramillo Nieves (Sub recipient PI)

Managed as Assistant Dean of Research

Funds: \$80,000

# EXTERNAL FUNDS AS PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR:

July 2021-Seismic activity in Puerto Rico and the protection of

cultural heritage.

Puerto Rican Endowment for the Humanities (FPH, Spanish Acronym), National Endowment of the Humanities (NEH)

Project number: FPH-33-2021

Funds: \$46,102

**Conference Travel Fund** June, 2019

Sloan Scholars Mentoring Network, SSMN, Social Science

Research Council Funds: \$1,500

Project One community at a time, Celebrate 100 Grant, May, 2019

American Geophysical Union, Lindsay Ann Davis (PI.) Dr. Lorna Jaramillo-Nieves (Co-PI), Dr. Fernando Briones, Dr.

Erin Leckey and Dr. Ryan Vachon (Collaborators)

Funds: \$9,836

June, 2018 **Conference Travel Fund** 

Sloan Scholars Mentoring Network, SSMN, Social Science

Research Council Funds: \$2,054

# FELLOWSHIPS AND SCHOLARSHIPS:

**Bill Hiss Creativity Travel Award** 2003

> Department of Geological Science University of Colorado, Boulder

2000 and 2002 Longley, Warner & Whalstrom Scholarship

Ph.D. Thesis Support

1999–2003 American Geological Institute Minority Scholar

Fellowship granted by the American Geological Institute for Minority Groups enrolled in a Master and Doctoral degree.

1999-2002 Alfred P. Sloan Fellowship

Fellowship granted by the Alfred P. Sloan Foundation to

outstanding students for full tuition expenses.

**AWARDS:** 

2020 Citizen's Award for Exceptional Service

U.S. Geological Survey

2003 Best Poster Presentation

Remote Sensing evaluation of element dispersion characteristics of porphyry copper deposits in the Silver Bell

**Mountains** 

Geological Society of America

Cordilleran Section, 99th Annual Meeting

Puerto Vallarta, Mexico

1996 Harry H. Hess Award

Highest General Point Average (GPA)

Geology Department

**Commencement Ceremony** 

University of Puerto Rico, Mayagüez

1995 **Paper Award AGU** 

Sector collapse in island arc volcanoes and implications for hazard assessment: a digital topographic and bathymetric

investigation of Qualibou Depression

American Geophysical Union Annual Meeting Paper Contest

(Second Place)

1991 London International Youth Science Fortnight

Fellowship (LIYSF), United Kingdom

Founded in 1959, LIYSF aims to give a deeper insight into science and its applications for the benefit of all mankind and to develop a greater understanding between young

people of all nations.

1991 **42<sup>nd</sup> International Science and Engineering Fair** 

(ISEF), Orlando, Florida

Geomorphological Changes in the Northern Coast Between Punta Cangrejos and Punta Vacia Talega in Loíza After

Hurricane Hugo in 1989.

American Geological Institute, AGU (Second Place)