

LUISA FERNANDA ZAMBRANO-MARIN

Space Scientist & Communicator

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IN A NUTSHELL

- Dedicated scientist**
Experience in multiple wavelengths and diverse instrumentation.
- Experimental research skills**
In applied physics, experience in optical and radio telescope systems, Juno mission magnetometer and custom made instruments for observing facilities.
- 18 years of experience in Space Sciences**
Astronomy and Education including work at, NASA-Goddard and Ames Research Centers, the Kitt Peak Observatory in Arizona, and at the Vatican Observatory.
- International Network**
Persistent advocate of Space applications, technologies and education.
- Experienced in producing results within a limited budget**
Coordinated activities and project management integrating academia and administration practice.

EDUCATION

- PhD. in Space Sciences
Universidad de Granada
Spring 2025 Granada, Spain/ Florida, USA
- M.Sc. in Space Sciences
International Space University
Sept 2007 Strasbourg, France
- B.Sc. in Applied Physics
UMET, Ana G. Mendez University System
May 2005 San Juan, PR

SCIENCE PUBLICATIONS

- Google Scholar Profile
- Open Researcher and Contributor ID (ORCID)
- NASA-Astrophysics Data System

MOST PROUD OF

- Chambliss Astronomy Achievement Award**
233rd AAS Meeting
- Contributing to Planetary Defense**
Active researcher on small bodies, organizing and participating on public engagement events and activities.
- Alumni**
Over 300 former students doing science
- Inspiring next generation space scientist**
To balance science and family

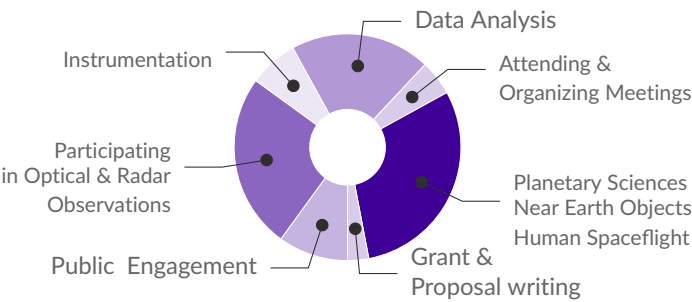
STRENGTHS & INTEREST

- Science Communication Motivator & Leader
- Enthusiastic Creative Reliable
- Kinesthetic Teaching ESL
- Apophis near-Earth Objects Small Bodies
- Experimental research Human Space Habitation

LANGUAGES

- English
- Spanish
- Italian
- French

AREAS OF EXPERTISE



EXPERIENCE

Science Staff

Florida Space Institute, University of Central Florida, Planetary Radar Group

📅 Aug 2020 -present

📍 Florida, USA

- On going characterization of Near Earth Objects observed with radar. Developing shape models, dynamical and physical properties.
- Develop catalogue of Arecibo Planetary Radar Data Legacy
- Member of the Small Bodies Assessment Group, NEO-WARP initiative, Planetary Defence community at large.

Arecibo Observatory/UCF- Planetary Radar Group

📅 Apr 2018- Aug 2022

📍 Arecibo, PR

- 7 years of experience with radar observations and techniques in support of post detection characterization of near-earth objects and other solar system bodies
- Preparation and participation in observations, data processing, archiving, and study of near-Earth asteroids and other Solar System bodies with the Arecibo Planetary radar system

Arecibo Observatory/ USRA- Planetary Radar Group

📅 Sep 2013- Mar 2018

📍 Arecibo, PR

- Participate and support observations with the Arecibo Planetary Radar System

Founder & Director- Arecibo Observatory Space Academy

Arecibo Observatory

📅 Aug 2013–Dec 2017

📍 Arecibo,PR

- Creation of workshops, activities and curriculum
- Develop and conduct inter-grade, inter-discipline activities utilizing external resources for integration of curriculum's with private sector and higher learning institutions
- Mentor High schools students in the development of scientific research projects focused in space exploration

Assistant Director Teacher Quality Grants Program (Astrobiology)

University of Texas Brownsville

📅 June 2011-June 2012

📍 Brownsville, TX

- Preparation of workshops, lectures and curriculum for program on Physics, Astronomy & Space Sciences
- Use of teacher and educational techniques for classroom implementation in Educators of English Language (EEL) and English as Second Language (ESL) settings

Visiting Astronomer

Vatican Observatory Group, VATT

📅 Summer 2004 & 2005

📍 Castel-Gandolfo, Italy

- Visiting astronomer gathered data with the Vatican Advanced Technology Telescope in Mount Graham AZ

PUBLICATIONS

📖 Articles As Main Author

- Zambrano-Marin, Luisa Fernanda, Sean E Marshall, and Ellen S Howell (2025). *2020 BX12—The Last Binary Asteroid Discovered at Arecibo*. DOI: 10.3847/PSJ/adbe39.
- Zambrano-Marin, LF, SE Marshall, et al. (2024). *A Collaborative Platform for Asking about Apophis: Addressing Public Interest and Global Reach*. Vol. 3006, p. 2069.
- Zambrano-Marin, Luisa Fernanda, Ellen S Howell, Sean E Marshall, et al. (2024a). *The Fastest Rotators: Near-Earth Asteroids Observed with the Arecibo Planetary Radar System*. Vol. 415. Elsevier, p. 116060. DOI: 10.1016/j.icarus.2024.116060.
- – (June 2024b). *The Fastest Rotators: Near-Earth Asteroids Observed with the Arecibo Planetary Radar System*. Vol. 415. Elsevier BV, p. 116060. DOI: 10.1016/j.icarus.2024.116060. URL: <http://dx.doi.org/10.1016/j.icarus.2024.116060>.
- Zambrano-Marin, LF, MC Nolan, et al. (2023). *Radar Beaming Through the Solar System's Asteroids, Comets, and Radar: Tally of 40 Years of Arecibo Observatory's Planetary Radar System Observations*. Vol. 2851, p. 2553.
- Zambrano-Marin, Luisa Fernanda, Ellen S Howell, Patrick A Taylor, et al. (2022). *Radar and Optical Characterization of Near-Earth Asteroid 2019 OK*. vol. 3. 6. IOP Publishing, p. 138. DOI: 10.3847/PSJ/ac63cd.
- – (June 2022a). *Radar and Optical Characterization of Near-Earth Asteroid 2019 OK*. vol. 3. 6, 138, p. 138. DOI: 10.3847/PSJ/ac63cd.
- – (June 2022b). *Radar and Optical Characterization of Near-Earth Asteroid 2019 OK*. vol. 3. 6. American Astronomical Society, p. 138. DOI: 10.3847/psj/ac63cd. URL: <http://dx.doi.org/10.3847/PSJ/ac63cd>.

👤+ Selected Conferences

- Zambrano-Marin, Luisa F., et al. (Apr. 2021). "Rapid Response Radar: Arecibo and 2019 OK". in: 7th IAA Planetary Defense Conference, 222, p. 222.
- Zambrano Marin, Luisa et al. (2021). "2020 BX12: The Last Binary Asteroid Discovered by Arecibo Observatory". In: AAS/Division for Planetary Sciences Meeting Abstracts. Vol. 53. 7, pp. 207–01.
- Zambrano Marin, Luisa F et al. (2019). "Arecibo observatory radar observations: 2017-2018". In: American Astronomical Society Meeting Abstracts No. 233. Vol. 233, pp. 347–07.
- Zambrano-Marin, LF, EG Rivera-Valentin, et al. (2016). "THE ARECIBO OBSERVATORY SPACE ACADEMY: 4 YEARS OF STEM ENGAGEMENT". in: Lunar and Planetary Science Conference. 1903, p. 2617.