Lizet Casillas

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Education

Currently	Master of Science Degree in Physics **California State University Northridge**, Los Angeles
May 2019	Bachelor of Science in Physics - Astronomy Option **California State University Northridge**, Los Angeles
June 2016	Transfer Requirements Physics **Pasadena City College**, Pasadena

Research

May 2019 - Current	Advanced Heliophysics Supervisor - Dr. Olga Panasenco *Graduate Research Assistant* [Thesis] Investigaing the statistical likelihood of geo-effective CMEs based on their chirality and geometry. Used machine learning to create a boundary data set that can be used for data-driven propagation of magnetized CMEs in heliospheric models and AI models to predict the magnetic configuration of CMEs at 1 AU and the potential geo-effectiveness of the solar storms.
Aug 2018 - June 2019	Cal State Northridge Astronomy/JPL Supervisor - Dr. Farisa Morales *Undergraduate Researcher* Investigated infrared observations and characterizations of planetary debris disks. Created visualization tool for future proposal for JWST.
May 2017 - June 2019	LuchkoLab at California State Northridge Supervisor - Dr. Tyler Luchko *Undergraduate Research Assistant* [Thesis] Developed different sampling methods for finding more effective solvation free energy simulations. Ran Molecular Dynamics on a small molecules and analyzed with 3D-RISM. Used sampling methods and exponential averaging to find solvation free energy.

Teaching Experience

Aug 2019 - Present	**Teaching Associate · CSUN** Instructor for undergraduate laboratory courses: Physics 100BL - Electricity and Magnetism Laboratory (24 students) and Astronomy 154L - Astronomy Laboratory (48 students)
Aug 2018 - May 2019	**Tutor · CSUN** Department tutor for all introductory courses.
Jan 2018 - May 2019	**Peer Learning Facilitator** In-class tutor for introductory mechanics courses: Physics 100b

Awards

2020 - 2021	**Graduate Equity Fellowship** CSUN Office of Graduate Studies
Summer 2020	**Summer Research Grant** CSUN Department of Physics and Astronomy
2020	**DRES Recognition Award** CSUN DRES Center
2018 - 2019	**Paul and Amy Lee Scholarship** CSUN Department of Physics and Astronomy

Presentations

2020 September 7	**CSUN Physics and Astronomy Colloquium** Lizet Casillas and Olga Panasenco Predicting Magnetic Configuration of Coronal Mass Ejections and Potential Geo-effectiveness Solar Storms
2019 April 6	**23nd Annual Research and Creative Works Symposium** Lizet Casillas and Tyler Luchko. Methods for Effective Solvation Free Energy Calculation
2019 January 19	**Conference for Undergraduate Women in Physics** Lizet Casillas and Tyler Luchko. Methods for Effective Solvation Free Energy Calculation
14 July 18	**Meeting of the Minds USC** Lizet Casillas, Sayed Arvin Razavi and Dr. Kang Wang Effect of Structeral Assymetry on Spin-Orbit Tourque Magnetization Switching

Clubs and Organizations

The Heliospheric Magnetic Energy Storage and conversion (HERMES) Science Center	**Member** University Of California Los Angeles
American Geophysical Union	**Member**
Society of Physics Students	**President** California State University Northridge
Astrophysics Journal Cub	**Member** CSUN Department of Physics and Astronomy
Biophysics Journal Cub	**Member** CSUN Department of Physics and Astronomy
Pasadena City College Astronomy Club	**President** Pasadena City College

Technical Skills

Experienced in: Unix, Linux, BASH Shell, *Python*, LaTeX, *MatLab*, *LabVIEW*
Intermediate: Machine Learning