

# Manuel Pichardo Marcano

manuelpm.me

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Pronouns: he/him/his

## Education

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- ▶ *Master of Science in Physics*  
Texas Tech University, 2016-2018
- ▶ *Joint European Master Degree in Space Science & Technology*  
Project topic: MUSE observations of the compact objects NGC 6397  
M.S., Space and Science Technology, Luleå tekniska universitet (2014 - 2016)  
M.S., Astrophysics, Université Paul Sabatier Toulouse III, Mention Assez Bien (2014 - 2016)
- ▶ *Bachelor of Science, Physics*  
Utah State University, Cum Laude (2014)

## Research Experience

- ▶ Spring 2016: *Research Project*, Research Institute in Astrophysics and Planetology (IRAP).  
MUSE observations of the compact objects NGC 6397. <https://github.com/manuelmarcano22/MasterThesis>
- ▶ Summer 2015: *Summer Project*, Institute for Gravitational Research, University of Glasgow.  
<https://github.com/manuelmarcano22/aLIGO-wxPython>
- ▶ 2013-2014: *Undergraduate Researcher*, Utah State University, Astrophysics Group.  
<http://arxiv.org/abs/1311.3153>
- ▶ Summer 2013: *Undergraduate Researcher*, National Center for Atmospheric Research  
<http://manuelpm.me/papers/posterhao.pdf>
- ▶ Summer 2012: *Undergraduate Researcher*, Stanford University, Geophysics Dep.  
<http://manuelpm.me/papers/posterinsar.pdf>

## Publications & Preprints

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### Papers

- ▶ S.W. McIntosh, W.J. Cramer, **M. Pichardo Marcano**, R.J. Leamon, The detection of Rossby-like waves on the Sun, *Nature Astron.* **1**, 0086 (2017). doi:10.1038/s41550-017-0086
- ▶ *Limiting alternative theories of gravity using gravitational wave observations*  
Jeffrey S. Hazboun, **Manuel Pichardo Marcano** and Shane L. Larson; preprint arxiv/1311.3153

### Talks and Posters

- ▶ "MUSE integral field unit observations of the compact objects in the globular cluster NGC 6397"  
Poster. Stellar Remnants at the Junction. Junction, TX. 2016
- ▶ "Measuring Water Level Fluctuations of Two Connected Wetlands in the Dominican Republic Using InSAR"  
Poster. SHPE National Conference. Dallas, TX. 2012
- ▶ "Measuring Water Level Fluctuations of Two Connected Wetlands in the Dominican Republic Using InSAR" Talk. USU Physics Department Colloquium. 2012

## Media Coverage

- Planetary waves, first found on Earth, are discovered on Sun (phys.org)

## Observing Time Awarded

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### CoI

- *Multi Unit Spectroscopic Explorer - MUSE*: The Hydrogen Alpha Disk Emission from the Compact Binaries of the Globular Cluster NGC 6397 (1.5 h).

## Teaching Experience

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- Graduate Part-Time Instructor PHYS 1403/1404: Algebra-based, Inquiry-based, Laboratory-based Introductory Physics Curriculum. TTU, 2017-Present.
- Teaching Assistant. PHYS 1401/2401: Principles of Physics I/II. Lead the laboratories and discussions for the calculus based introductory physics. TTU, 2016-2017.
- Undergraduate Teaching Fellow PHYS 2215: Physics for Scientists and Engineers Lab I - Utah State, Fall 2013.

## Recognitions & Leadership Experiences

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- Erasmus Mundus Scholarship: 2-year scholarship awarded by the European Commission
- Presidential Scholarship: Full 4-year scholarship awarded by the Dominican Government
- Member: *Sigma Pi Sigma*, The Physics Honor Society
- Lawrence R. and Abeline Megill Scholarship: *USU Physics Department*

## Technical Skills

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| ► <i>Programming Languages</i> : Proficient in Python (Jupyter/iPython notebooks) and shell scripting (bash). | ► <i>Software</i> : IRAF/PyRAF, SAOImageDS9/JS9                |
| ► <i>Markup Languages</i> : L <sup>A</sup> T <sub>E</sub> X, Markdown   | ► <i>Version Control Systems</i> : Git                         |
| ► <i>Operating Systems</i> : GNU/Linux, OS X, Windows   | ► <i>Virtualization and Cloud Services</i> : Docker (learning) |

## Languages

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| ► <i>Spanish</i> : Native Language | ► <i>French</i> : Intermediate knowledge |
| ► <i>English</i> : Fluent          |  |

## Outreach

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- *Author at Astrobitos*: URL: <https://astrobitos.org/author/manuelmarcano22/>
- *"Dimensionality Reduction applied to Large Spectroscopic Surveys"* (<http://manuelpm.me/PCASDSS/>) Emmy Noether High School Mathematics Day, Lubbock, TX. 2018
- *"Galactic Bulge Survey: Fuentes de Rayos X del Bulbo Galáctico"* (<http://manuelpm.me/AstrodomGBStalk/>) Santo Domingo, Dominican Republic. 2018
- *"Estudio de la población de objetos compactos en el cúmulo globular NGC 6397 con la unidad de campo integral MUSE"* (<http://manuelpm.me/Astrodomtalk/>) Santo Domingo, Dominican Republic. 2016

## References

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