Carmen San Nicolas Martinez

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Education

Instituto de Astrofísica e Ciências do Espaço (IA), Faculdade de Ciências da Universidade do Porto (FCUP)   *Sept 2024 – Current*
PhD in Astronomy

- **Thesis title:** Refining the radial velocity method to uncover other Earths.
- **Supervisors:** Dr. Nuno C. Santos and Dr.Vardan Zh. Adibekyan
- **Submission:** Porposed date - September 2027
- **Research methods:** Extreme Precise Radial Velocity through identification of individual spectral lines that are more and less affected by stellar activity.

Universidad Complutense de Madrid   *Sept 2021 – Feb 2023*
Masters degree in Astrophysics

- **Dissertation:** Life Tolerability Index of known exoplanets. Application to rocky planets.
- **Supervisor:** Dr. Patricia Cruz
- **Relevant courses:** Stellar atmospheres, Astronomical instrumentation, Solar System and exoplanets, Cold stars and substellar objects, Experimental techniques in astrophysics

Universidad Complutense de Madrid   *Sept 2016 – July 2021*
Degree in Physics

- **Dissertation:** Characterization of exoplanetary systems
- **Supervisors:** Dr. David Montes
- **Relevant courses:** Stellar astrophysics, Observational astronomy, Statistical physics, Astrophysics, Cosmology and general relativity

Alfonso X el Sabio High School   *Sept 2014 – June 2016*
International Baccalaureate

Experience

Science comunicator   *European Space*
Nubalo Studios   *Astronomy Center*
                    Oct 2022 - May 2023

- Conduct STEAM workshops and educational experiments on space sciences for students aged 7 to 18.
- Design and create new experiences on space science(using Virtual Reality, Augmented Reality, 3D printing, robotics, holograms, multimedia content, museumization, etc.).
- Participate in various events throughout the year: Researchers' Night, Science Week, Expoastronomica.
- Adapt the workshops and experiences for primary, secondary, and university students, as well as for other types of audiences.

Intern in Cooperation Through Education in Science and Astronomy Research (CESAR)   *European Space*
European Space Agency   *Astronomy Center*
                    Feb 2022 - Aug 2022

- Review of the current CESAR project website, focusing on online scientific challenges.
- Analyze the challenges to be taught in a more diverse and inclusive way.
- Develop a new scientific challenge, based on astrophysics and astrobiology. Ensure the new challenge is developed with an inclusivity perspective.
- Transfer all previous and new scientific challenges to an e-learning platform.
- Participate in seminars for primary and secondary school teachers about ESA projects and astrophysics.

Conferences and Seminars

Extreme Precise Radial Velocity (EPRV) 6   July 2025
Poster - The Path to 10 cm/s RV Precision: a new line-by-line code
https://www.iastro.pt/research/conferences/eprv6/

PLATO ESP2025   June 2025
Attendee - remote

Workshop on wavelength calibration for high-resolution spectrographs   May 2025
Attendee - remote

2nd PoET Workshop   October 2024
Speaker - Refining the radial velocity method to uncover other Earths
https://www.iastro.pt/research/conferences/poet2024/index.html?opt=programme

XXXIV Encontro Nacional de Astronomia e Astrofísica   September 2024
Speaker - Refining the radial velocity method to uncover other Earths
https://enaa-xxxiv.github.io/program

Webinar Women's Voices - Intergenerational Dialogues   February 2021
Speaker in round table
Voces de Mujer - Diálogos Internacionales — YouTube

Organization

Exoplanets 6   December 2024 - Current
Local Organizing Committee
https://www.iastro.pt/research/conferences/exoplanets6/

Extreme Precise Radial Velocity (EPRV) 6   June 2024 - Current
Local Organizing Committee
https://www.iastro.pt/research/conferences/eprv6/

Cookie seminars (Centro de Astrofísica U.Porto)   March 2024 - Current
Organizer
https://www.iastro.pt/research/cookieSeminars.html

Diversity and Inclusion Group   September 2023 - Current
Member

Courses

2025 ORP Proposal Writing School   *Online*
European Southern Observatory (ESO)   *February - March 2025*

4th Advanced School on Exoplanetary Science   *Vietri sul Mare, Italy*
University of Salerno, Astronomical Observatory of Rome, National Institute of *May 2023*
Astrophysics

ASTROTWINCOLO   *Online*
University of Antioquia and Leiden Observatory   *Nov 2021 - Dec 2021*

XXI SVO School   *Online*
Spanish Virtual Observatory   *Oct 2021 - Dec 2021*

Latex course   *Online*
Universidad Complutense de Madrid   *May 2021*

Space Master class   *Korolyov, Russia*
Center for Applied Educational Technologies   *Feb 2016*

Technical Skills

Programming Language: Python, R, Fortran
Operating Systems: Linux, Windows
Data reduction and Analysis Software: Python, ESOReflex Molecfit, TelFit, ARES, Linesearcher
Languages: Spanish (mother tongue), English (C1), Portuguese (B2)