



Pablo Sotomayor Checa

Curriculum Vitae

*"Something very strange is going on in the depths of space."
- Carl Sagan, Cosmos*

Career Profile

2018–Present **Doctoral Fellow**, *Argentinian Institute of Radio Astronomy (IAR-CONICET)*.
Research field: high-energy astrophysics, cosmology, general relativity, accretion, astrophysical jets, and high-energy plasma phenomena in general

Academic Formation

2018–Present **PhD in Astronomy**, *Faculty of Astronomical and Geophysical Sciences (FCAG), National University of La Plata (UNLP)*, Argentina.

2011–2018 **Ms.S. in Astronomy**, *Faculty of Astronomical and Geophysical Sciences (FCAG), National University of La Plata (UNLP)*, Argentina, Average Mark: 9.41/10.00.

Degree Thesis: A model for microquasars of Population III, Mark: 10.0/10.0
Advisor: Dr. Gustavo Romero **Co-advisor:** Dr. Leonardo Pellizza

PhD Courses

2016 **Introduction to Magnetohydrodynamics**, Prof. Dr. Ana María Platzeck, Attended.

2017 **Introduction to Black Hole Astrophysics**, Prof. Dr. Gustavo Romero, Attended.

2017 **Introduction to X-Ray Astronomy**, Prof. Dr. Jorge Combi, Attended.

2018 **Elements of Quantum Field Theory I**, Prof. Dr. Horacio Falomir, On course.

2018 **Scientific Philosophy**, Prof. Dr. Gustavo Romero, On course.

Fellowships

2018–Present **PhD. CONICET Research Fellow (National Research Council)**, Topic: *Microquasars of Population III*, Advisor: Dr. Leonardo Pellizza, Co-advisor: Dr. Gustavo Romero.

- 2017 **Argentine Association of Astronomy fellowship for stimulating scientific vocation**, *Topic: A model for microquasar of Population III*, Advisor: Dr. Gustavo Romero.

Participation in Scientific Meetings

Talks

- 2017 **A model for microquasars of Population III.**, 60th *Annual Meeting of the Argentinian Astronomical Association*, Mendoza, Argentina.
- 2017 **Population III microquasars.**, *High-Energy Phenomena in Relativistic Outflows VI.*, co-author, Moscu, Russia.

Posters

- 2017 **Accretion and ejection in X-Ray Binaries of Population III.**, *Deciphering the Violent Universe*, Playa del Carmen, Mexico.

Attended Meetings

- 2016 **Problems of Scientific Philosophy**, La Plata, Argentina.
- 2016 **Links between Supernovae and Supernovae Remnants in Argentina**, La Plata, Argentina.
- 2015 59th **Annual Meeting of the Argentinian Astronomical Association**, La Plata, Argentina.
- 2015 **Observational Tools Workshop**, CASLEO, Argentina.
- 2015 3rd **Congress of Students of Science and Technology Argentina (CONECTAR)**, Montevideo, Uruguay.

Teaching Experience

- 2018–Present **Undergraduate Assistant of Classical Mechanics**, *Faculty of Astronomical and Geophysical Sciences, UNLP*, La Plata.
- 2017–Present **Undergraduate Assistant of General Astronomy**, *Faculty of Astronomical and Geophysical Sciences, UNLP*, La Plata.
- 2016–2017 **Undergraduate Assistant of the Summer Entrance Course**, *Faculty of Astronomical and Geophysical Sciences, UNLP*, La Plata.
- 2015–2017 **Undergraduate Assistant of Calculus**, *Faculty of Engineering, UNLP*, La Plata.
- 2015–2016 **Undergraduate Assistant of General Physics I**, *Faculty of Engineering, UNLP*, La Plata.

Publications

Complete papers in international proceedings

1. Population III Microquasars.

Romero, G.E., & Sotomayor Checa, P.

Proceedings of High-Energy Phenomena in Relativistic Outflows VI, in press.

Complete papers in national proceedings

1. Modelo de microcuásar de Población III

Sotomayor Checa, P., & Romero, G.E.

Boletín de la Asociación Argentina de Astronomía Vol. 60, in press.

Institutional Participation

- 2018 - Present Student member of the Commission for the interpretation of regulations and finances of the Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2016- Present Student member of the Board of Directors of the Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2016 - 2017 Student member of the Commission of works, maintenance and physical spaces of the Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2016 Student member of the Commission of investigations of the Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2015 - 2016 Student member of the Commission of transfer of the Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2015 Student member of the Advisory Committee for selecting a graduate teaching assistant for Classical Mechanics, Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2014 Student member of the Advisory Committee for selecting a graduate teaching assistant for Numerical Analysis and Programming, Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2014 Student member of the Advisory Committee for selecting a graduate teaching assistant for Calculus II, Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2014 Student member of the Advisory Committee for selecting a graduate teaching assistant for Calculus I, Faculty of Astronomical and Geophysical Sciences of La Plata.

Spoken Languages

Spanish **Native**
English **Intermediate**

Programming languages

Fortran **Intermediate-High**
Python **Intermediate**
C **Basic**