

Santiago del Palacio

Academic Formation

2014–Present **PhD in Astronomy**, *Faculty of Astronomical and Geophysical Sciences, La Plata National University*, La Plata.

2008–2014 **Ms.S. in Astronomy**, *Faculty of Astronomical and Geophysical Sciences, La Plata National University*, La Plata, GPA – 9.56.

PhD Courses

1. Seminar of Radioastronomy

Professors: Dr. Paula Benaglia & Dr. Manuel Fernández López

Faculty of Astronomical and Geophysical Sciences, La Plata National University

Year: 2015 Mark: 10/10

2. Introduction to black hole astrophysics.

Professor: Dr. Gustavo Romero.

Year: 2015 Attended

3. Introduction to Magnetohydrodynamics.

Professor: Dr. Ana María Platzeck.

Year: 2014 Attended

4. Seminar: Applications of GRTensor in Astrophysics and Cosmology.

Professor: Dr. Santiago Pérez-Bergliaffa.

Year: 2014 Mark: 10/10

5. Introduction to X-Ray Astronomy.

Professor: Dr. Jorge Combi.

Year: 2014 Mark: 10/10

6. Seminar: High-Energy Processes in Sources with Relativistic Outflows.

Professor: Dr. Valentí Bosch-Ramon.

Year: 2013 Mark: 8/10

Fellowships

2014–Present **PhD CONICET Research Fellow (National Research Council)**, *Topic: Investigation of non-thermal processes in the vicinities of massive stars*, Advisor: Dr. Bosch-Ramon, Valentí, Co-advisor: Dr. Romero, Gustavo E..

2013–2014 **CIC training fellowship for university students**, Supervisor: Dr. Combi, Jorge.

2012-2013 **CIN fellowship for estimating scientific vocation**, Advisor: Dr. Bosch-Ramon, Valentí, Co-advisor: Dr. Romero, Gustavo E..

Awards

2015 Distinction to the best poster contribution in the I Annual Meeting of PhD Students of the Faculty of Astronomical and Geophysical Sciences of the UNLP

2014 Joaquín V. González Prize, Distinction awarded to students of the University of La Plata with the highest marks. La Plata City Council, Buenos Aires, Argentina

Teaching Experience

Graduate Experience

2016–Present **Graduate Teaching Assistant of Introduction to Relativistic Astrophysics and Introduction to Black Holes Astrophysics**, *Faculty of Astronomical and Geophysical Sciences, UNLP, La Plata.*

2014–Present **Graduate Teaching Assistant of Calculus**, *Faculty of Engineering, UNLP, La Plata.*

2015,2016 **Graduate Teaching Assistant of the Summer Entrance Course**, *Faculty of Exact Sciences, UNLP, La Plata.*

Undergraduate Experience

2011–2014 **Teaching Assistant of the Summer Entrance Course**, *Faculty of Astronomical and Geophysical Sciences, UNLP, La Plata.*

2012–2014 **Teaching Assistant of Algebra**, *Faculty of Astronomical and Geophysical Sciences, UNLP, La Plata.*

2011–2012 **Teaching Assistant of Calculus**, *Faculty of Engineering, UNLP, La Plata.*

2011 **Teaching Assistant of Calculus**, *Faculty of Exact Sciences, UNLP, La Plata.*

Teaching Formation

2015 **Graduate course: Geogebra didactic aspects for teaching basic science and engineering**, *Faculty of Engineering, UNLP, La Plata, Mark: 10/10.*

2014 **Workshop: Teaching and evaluation in university classrooms**, *Faculty of Astronomical and Geophysical Sciences, UNLP, La Plata.*

Observing Experience

Approved Proposals

2017 **Co-I of XMM-Newton Proposal**, *The massive binary HD 93129A: an extreme wind-wind collision during AO16*, Awarded Time: 60 ks.

- 2016 **PI of JVLA Proposal**, *Search of synchrotron radiation in two interacting stellar bubbles (2nd part)*, Awarded Time: 1.33 h.
- 2016 **PI of JVLA Proposal**, *Search of synchrotron radiation in two interacting stellar bubbles*, Awarded Time: 3.23 h.
- 2016 **Co-I of GMRT Proposal**, *Testing the non-thermal radio emission from the putative gamma-ray source WR 11*, Awarded Time: 24 h.
- 2016 **Co-I of GMRT Proposal**, *Spatial Distribution and Variability of the Non-Thermal Emission Associated with Proplyd-like Objects Near the Cygnus OB2 Region*, Awarded Time: 14 h.
- 2015 **PI of JVLA Proposal**, *Is the radiation from the brightest colliding-wind binaries polarized?*, Awarded Time: 7.9 h.
- 2015 **PI of JVLA DDT Proposal**, *Is the Emission from the Wind-Collision Region of WR146 Polarized?*, Awarded Time: 1.0 h.

Participation in Scientific Meetings

Talks

- 2015 **A model for the non-thermal emission of the very massive colliding-wind binary HD93129A**, *58th Anual Meeting of the Argentinian Astronomical Association*.
- 2014 **Interactions of relativistic particles in stellar winds**, *II Argentinian-Brazilian Meeting on Gravitation, Astrophysics, and Cosmology*.
- 2013 **Equivocando las preguntas: Métodos actuales de evaluación**, *1^{er} Encuentro Nacional de Estudiantes de Astronomía*.

Posters

- 2016 **Gamma-ray predictions for the very massive colliding-wind binary HD 93129A**, *6th International Symposium on High-Energy Gamma-Ray Astronomy (Gamma2016)*.
- 2015 **Relativistic particle content in the most massive colliding-wind binary in the Galaxy**, *High-Energy Phenomena in Relativistic Outflows V*.
- 2015 **Investigación de procesos no-térmicos en las cercanías de estrellas de gran masa**, *I Annual Meeting of PhD Students of the Faculty of Astronomical and Geophysical Sciences of the UNLP*, awarded a distinction as the best poster contribution of the meeting.
- 2013 **Estudio de procesos radiativos de alta energía en sistemas binarios con estrellas de gran masa**, *56th Anual Meeting of the Argentinian Astronomical Association*.

Organization

- 2014 **2^{do} Encuentro Nacional de Estudiantes de Astronomía**, La Plata.

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🌐 <http://garra.iar.unlp.edu.ar/people/santiago.html>

Other Courses Attended

- 2017 **Course ‘Massive Stars in the Modern Astronomical Era’**, *Faculty of Astronomical and Geophysical Sciences, UNLP, La Plata*, Dictated by Prof. Michaël De Becker.
- 2017 **Workshop ‘Latin American X-ray School for Different Astrophysical Scenarios: Data Analysis of the XMM-Newton, Chandra and NuSTAR missions’**, *COSPAR, Viedma*.
- 2012 **L^AT_EX Introduction to Academic Publications**, *Faculty of Astronomical and Geophysical Sciences, UNLP, La Plata*.
- 2010 **GNU/Linux Course for Students**, *Faculty of Astronomical and Geophysical Sciences, UNLP, La Plata*.

Outreach activities

- 2016 Interview for the program ‘Dos entre comillas’, FM Meliquina 99.9
- 2015 Interview for the program ‘Radiofotos’, FM Universidad 107.5
- 2015 Text for astronomy outreach: ‘Regiones de colisión de vientos estelares’, published in Bol. 50 of the Argentinian Institute of Radioastronomy.

Languages

- Spanish **Mothertongue**
- English **Intermediate-High**

Publications

Refereed papers in international journals

- Gamma rays from clumpy wind-jet interactions in high-mass microquasars**
de la Cita, V. M., del Palacio, S., Bosch-Ramon, V., Paredes-Fortuny, X., Romero, G. E., & Khangulyan, D.
Astronomy & Astrophysics, in press
- Synchrotron radiation and absence of linear polarization in the colliding wind binary WR 146**
Hales, C. A., Benaglia, P., del Palacio, S., Romero, G. E., & Koribalski, B. S.
Astronomy & Astrophysics, 598, 42, 2017
- A model for the non-thermal emission of the very massive colliding-wind binary HD 93129A**
del Palacio S., Bosch-Ramon, V., Romero, G. E., & Benaglia, P.
Astronomy & Astrophysics, 591, 139, 2016
- Gamma-ray binaries beyond one-zone models: an application to LS 5039**
del Palacio S., Bosch-Ramon, V., & Romero, G. E.
Astronomy & Astrophysics, 575, 112, 2015

Complete papers in international proceedings

1. **Gamma-ray predictions for the very massive colliding-wind binary HD 93129A**
del Palacio S., Bosch-Ramon, V., Romero, G. E., & Benaglia, P.
Proceedings of Gamma2016
2. **Relativistic particle content in the most massive colliding-wind binary in the Galaxy**
del Palacio S., Bosch-Ramon, V., Romero, G. E., & Benaglia, P.y
Proceedings of HEPRO V
3. **Interactions of relativistic particles in stellar winds**
del Palacio S., Bosch-Ramon, V., & Romero, G. E.
Proceedings of Second Argentinian-Brazilian Meeting on Gravitation, Astrophysics, and Cosmology

Complete papers in national proceedings

1. **A model for the non-thermal emission of the very massive colliding-wind binary HD93129A**
del Palacio S., Bosch-Ramon, V., Romero, G. E., & Benaglia, P.
Bol. Asoc. Arg. Astron., in press.
2. **High-Energy Radiative Processes in High-Mass Binary Systems**
del Palacio S., Bosch-Ramon, V., & Romero, G. E.
Bol. Asoc. Arg. Astron. 56, 2013.

Institutional Participation

- 2015–Present Graduate member of the Astronomy Curriculum Reform Comission of the Faculty of Astronomical and Geophysical Sciences of La Plata.
- 2017 Graduate member of the Advisory Committee for selecting a graduate teaching assistant for Calculus, Faculty of Engineering of La Plata. File 300-9203/16.
- 2011 Student member of the Advisory Committee for selecting the student teaching assistant for General Astronomy, Faculty of Astronomical and Geophysical Sciences of La Plata. File 1100-1387.