

Federico G. Lopez Armengol

Curriculum Vitæ

Instituto Argentino de Radioastronomía – C.C. No 5, Villa Elisa, Buenos Aires, Argentina
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Last update: June, 2017

Current position

- **April 2015 - present: Astronomy PhD student**
Faculty of Astronomy and Geophysics, National University of La Plata
- **October 2015 - present: Graduated Teaching Assistant of Math**
Faculty of Engineering, National University of La Plata

Academic formation

1. **1996 - 2007: High School**
San Luis of La Plata School
Average mark: 8.23/10
2. **2008 - 2015: M.Sc. in Astronomy**
Faculty of Astronomy and Geophysics, National University of La Plata
Degree thesis: *Cosmological evolution of black holes and their relationship with the second law of Thermodynamics*
Supervisors: Prof. Dr. Gustavo E. Romero & Dra. Daniela Pérez
Average mark: 9.68/10
3. **2015 - present: Astronomy PhD student**
Faculty of Astronomy and Geophysics, National University of La Plata
Topic: Black holes in astrophysical and cosmological contexts
Supervisor: Prof. Dr. Gustavo E. Romero
Working place: Instituto Argentino de Radioastronomía

Post-graduate courses

1. **GRTensor applications to Astrophysics and Cosmology**
Faculty of Astronomy and Geophysics, National University of La Plata
Final mark: 10/10
2. **Introduction to Quantum Field Theory I**
Faculty of Exact Sciences, National University of La Plata
Final mark: 10/10
3. **Introduction to Magnetohydrodynamics**
Faculty of Astronomy and Geophysics, National University of La Plata
Final mark: 10/10
4. **Introduction to Quantum Field Theory II**
Faculty of Exact Sciences, National University of La Plata
Final exam pending

Publication list

Refereed papers in international journals.....

1. **Accretion disks around black holes in Scalar-Tensor-Vector Gravity**
Pérez, D., Lopez Armengol, F.G. & Romero, G.E.
Physical Review D **95**, 104047 (2017)

2. **Neutron stars in Scalar-Tensor-Vector Gravity**
Lopez Armengol, F.G. & Romero, G.E.
General Relativity and Gravitation, **49** (2), 1-15 (2017)
3. **Cosmological black holes and the direction of time**
Pérez, D., Romero, G.E. & Lopez Armengol, F.G.
Foundations of Science, doi:10.1007/s10699-017-9527-x (2017)

International conference proceedings.....

1. **Scalar-Tensor-Vector gravity effects on relativistic blobs ejected by AGNs**
Lopez Armengol, F.G. & Romero, G.E.
Proceedings of the Fifth Meeting on High-Energy Phenomena in Relativistic Outflows (HEPRO II), accepted for publication

National conference proceedings.....

1. **Interpretation misunderstandings about elementary Quantum Mechanics**
Lopez Armengol, F.G. & Romero, G.E.
Metatheoria, accepted for publication
2. **Scalar-tensor-vector gravity theory solutions with matter content**
Lopez Armengol, F.G. & Romero, G.E.
Boletín de la Asociación Argentina de Astronomía, **58**, 231-233

Under review.....

1. **Effect of Scalar-Tensor-Vector Gravity on relativistic jets**
Lopez Armengol, F.G. & Romero, G.E.
Submitted to *Physical Review D*, arXiv:1611.09918 (2017)

Scientific meetings

Contributions.....

1. **Grav17**
La Falda, Argentina (2017)
Oral presentation: *Strong field effects of Scalar-Tensor-Vector Gravity*
Authors: Federico G. Lopez Armengol, Gustavo E. Romero & Daniela Pérez
2. **International Summer Institute on the Philosophy of Quantum Gravity**
Williams Bay, Wisconsin, USA (2016)
Oral presentation: *Some philosophical issues in the causal set approach to quantum gravity*
Authors: Federico G. Lopez Armengol & Gustavo E. Romero
3. **High-Energy Phenomena in Relativistic Outflows V**
La Plata, Argentina (2015)
Poster: *Scalar-Tensor-Vector gravity effects on relativistic blobs ejected by AGNs*
Authors: Federico G. Lopez Armengol, Daniela Pérez & Gustavo E. Romero
4. **First Latin American meeting of Scientific Philosophy**
Buenos Aires City, Argentina (2015)
Oral presentation: *Interpretation misunderstandings about elementary Quantum Mechanics*
Authors: Federico G. Lopez Armengol & Gustavo E. Romero
5. **58th Annual Meeting of the Argentinian Astronomical Association**
La Plata, Argentina (2015)
Oral presentation: *Scalar-tensor-vector gravity theory solutions with matter content*
Authors: Federico G. Lopez Armengol, Gustavo E. Romero & Daniela Pérez
6. **Grav15**
La Falda, Argentina (2015)
Oral presentation: *Cosmic evolution of black holes and the second law of thermodynamics*
Authors: Federico G. Lopez Armengol, Daniela Pérez & Gustavo E. Romero

7. **First International Science-Technology Conference of Buenos Aires province**
La Plata, Argentina (2013)
Poster: *Black holes and the second law of Thermodynamics*
Authors: Federico G. Lopez Armengol, Gustavo E. Romero & Daniela Pérez

Organization.....

1. **First Latin American meeting of Scientific Phylosophy**
Buenos Aires City, Argentina (2015)
Member of the Local Organizing Committee

Fellowships

1. **PhD fellowship**
National Research Council (CONICET)
April 2015 - present
2. **Undergraduated research training fellowship**
Buenos Aires province scientific research committee
October 2013 - September 2014

Teaching experience

1. **Graduated Teaching Assistant of Math**
Faculty of Engineering, National University of La Plata
October 2015 - present
2. **Undergraduate Teaching Assistant of Math**
Faculty of Engineering, National University of La Plata
March 2015 - October 2015
3. **Undergraduate Teaching Assistant of Elementary Math**
Faculty of Astronomy and Geophysics, National University of La Plata
February 2015 - March 2015
4. **Undergraduate Teaching Assistant of Math**
Faculty of Engineering, National University of La Plata
March 2014 - February 2015
5. **Undergraduate Teaching Assistant of Elementary Math**
Faculty of Astronomy and Geophysics, National University of La Plata
February 2014 - March 2014
6. **Undergraduate Teaching Assistant of Math**
Faculty of Engineering, National University of La Plata
March 2013 - February 2014
7. **Undergraduate Teaching Assistant of Elementary Math**
Faculty of Astronomy and Geophysics, National University of La Plata
February 2012 - March 2012

Outreach

1. **Outreach article:** *El espacio y el tiempo*
Author: Federico G. Lopez Armengol
Boletín de Divulgación Científica y Tecnológica del IAR, ISSN: 1669-7871(2016)

Miscellaneous

Institutional management.....

1. **2016 - present:** Member of the Directive Council of the Instituto Argentino de Radioastronomía

Awards.....

1. **Distinguished graduate**, for outstanding marks during degree studies
National University of La Plata, 2015
2. **Dr. Joaquín V. González Distinction**, for outstanding marks during degree studies
La Plata City Council, Buenos Aires, Argentina, 2015

Membership of scientific organizations.....

1. **2015 - present:** Member of *Argentinian Astronomical Association*
2. **2015 - present:** Member of *Grupo de Astrofísica Relativista y Radioastronomía* (<http://garra.iar.unlp.edu.ar/>)