

Resume

Martín Emilio de los Rios

Adress: Hipólito Irigoyen 464. 7 "B". Córdoba Capital. Córdoba. Argentina
Phone-Number: +54 351 7511 214
Personal e-mail: martindelosrios13@gmail.com
Personal web-site: <https://martindelosrios.netlify.com>

1 Personal Information

Place and date of birth: San Salvador de Jujuy, Jujuy, Argentina 28/08/1990
Citizenship: Argentino.
Personal Identification: 35307578
Marital Status: Single.

2 Academic Information

- 5th Year PhD Student. The PhD Thesis defense will be on 2019, March *29th*. PhD Thesis Title: Machine Learning Techniques apply to Cosmological Problems.
- Title of qualification awarded: 'Licenciado' in Astronomy (equivalent to master degree). Grade Point Average: 9,07 (Max. 10). (March 2014)
- Graduate with honours on high-school at Jujuy Argentina in 2008.

3 Scholarships obtained

- Scholarship 'estímulo a la vocación científica'. SeCyT. 2012
- PhD Scholarship (CONICET). 2014

4 Languages proficiency

English: London tests of English, level 3 (upper intermediate Communication). Pass with merit in December of 2007

5 Programming Languages

- I have a lot of experience with the high-level languages R and Python.

6 Assistance to Workshops and Meetings

- 2 Binational Meeting AAA-SOCHIAS 2018.
- LAPIS School at UNLP 2018
- FOF Meeting at IATE-OAC 2018
- CMB from A to Z School. Cargese, France. November 2017
- Brazilian School of Cosmology and Gravitation. Rio de Janeiro, July 2017.
- Grav17 Workshop. April 2015
- FOF Meeting at IATE-OAC. April 2017
- School on Dark Matter. San Pablo, July 2016.
- 10° International Conference on the interconnection between Particle Physics and Cosmology. San Pablo, July 2016.
- GUASA Workshop at Guatemala. 2015
- FOF Meeting at IATE-OAC 2015
- 57° Annual Meeting of the Argentinian Astronomy Society. 2014
- FOF Meeting at IATE-OAC 2014
- 56° Annual Meeting of the Argentinian Astronomy Society. 2013
- First TOROS Workshop 2013
- Sérsic Meeting at IATE-OAC 2013
- FOF Meeting at IATE-OAC 2013
- 55° Annual Meeting of the Argentinian Astronomy Society. 2012

7 Oral presentations on Workshops.

- Measuring the cosmological parameters with machine learning techniques. 2° Binational Meeting AAA-SOCHIAS 2018.
- Measuring the cosmological parameters angular distribution. CMB from A to Z School. November 2017. France.
- Measuring the cosmological parameters angular distribution. Grav17 Workshop. April 2017. Brazil.
- Measuring the cosmological parameters angular distribution. FOF Meeting 2017.
- The Merging Systems Identification (MeSSI) Algorithm. 10° International Conference on the interconnection between Particle Physics and Cosmology. San Pablo, July 2016.

- A merging system detection Algorithm & first catalogue. FOF Meeting at IATE-OAC 2015.
- Construction of a catalogue of galaxy clusters in collision process. FOF Meeting at IATE-OAC 2014.

8 Refereed Publications.

- The MeSSI (Merging Systems Identification) Algorithm and catalogue. Monthly Notices of the Royal Astronomical Society, Vol. 458, No. 1, p. 226-232 (2016).
- I. Analysis of candidates for interacting galaxy clusters. Astronomy & Astrophysics, Volume 611, id.A78, 12 pp.
- Faraday Rotation Measure dependence with cluster dynamics. Submitted at Monthly Notices of the Royal Astronomical Society. F. Staszczyn & M. de los Rios (2018)
- The first galaxy cluster discovered by the Vista Variables in the Via Lactea Survey. Accepted for its publication in Astrophysical Journal Letters (2018). arXiv:1901.11097. L. Baravalle et al. (9° author)
- Estudio espectroscópico y morfológico de la nebulosa planetaria NGC 2918. Boletín de la Asociación Argentina de Astronomía, vol.55, p.59-63.
- Construcción de un catálogo de cúmulos de galaxias en proceso de colisión: métodos y resultados. Boletín de la Asociación Argentina de Astronomía, vol.57, p.22-24.

9 Academic Visits

- Institute for Computational Cosmology. Durham University. Durham, England. From 20/11/2017 to 20/12/2017.

10 Teaching

- Teacher assistance in Astronomía General II course at FAMAF-UNC. 2013
- Teacher assistance in Astronomía General I course at FAMAF-UNC. 2014
- Teacher in Laboratori II course FCQ-UNC. 2018

11 Awards obtained

- Premio Universidad Nacional de Córdoba. 2014.

References

- [1] M. de los Rios, M. J. Domínguez R., D. Paz, and M. Merchán. The MeSSI (merging systems identification) algorithm and catalogue. *mnras*, 458:226–232, May 2016.
- [2] E. J. Gonzalez, M. de los Rios, G. A. Oio, D. H. Lang, T. A. Tagliaferro, M. J. Domínguez R., J. L. N. Castellón, H. Cuevas L., and C. A. Valotto. Analysis of candidates for interacting galaxy clusters. I. A1204 and A2029/A2033. *aap*, 611:A78, April 2018.

- [3] K. Sigurdson, M. Doran, A. Kurylov, R. R. Caldwell, and M. Kamionkowski. Dark-matter electric and magnetic dipole moments. *prd*, 70(8):083501, October 2004.
- [4] F. Stasyszy and M. de los Rios. Faraday Rotation Measure dependence with galaxy clusters dynamics. *aap*, 2018.