



# Adriano Pieres

Astrophysics, Stellar Populations  
LineA/Observatorio Nacional, Brazil

<https://adrianopieres.org>

[adriano.pieres@linea.gov.br](mailto:adriano.pieres@linea.gov.br)

(+5551) 99164-8520

<http://lattes.cnpq.br/9191548792443062>

## SEARCH OF INTEREST

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- Stellar populations (age, chemical content, distribution, distance).
- Star clusters and nearby galaxies in the Local Volume (the Galaxy, Magellanic Clouds and dwarf galaxies). Methods for discovery, structural analysis, mass estimates.
- Scientific programming (mainly Python) with large surveys and data sets.
- Stellar photometry.

## EDUCATION

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### PhD Science/Astrophysics

2014-2017

Universidade Federal do Rio Grande do Sul (UFRGS), 2017

[“A new view on the Magellanic Cloud’s outskirts”](#)

Thesis advisor: B. Santiago

### Master Physics/Astrophysics

2012-2013

Universidade Federal do Rio Grande do Sul (UFRGS), 2013

[“Analysis of Color-Magnitude Diagrams of Galactic Globular Clusters”](#)

Research advisor: S. O. Kepler

## PEER-REVIEWED AND ACCEPTED JOURNAL PAPERS<sup>1</sup> [\[statistics\]](#) [\[arXiv\]](#)

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13. [A. Pieres](#), L. Girardi, E. Balbinot, B. Santiago, et al., “[Modelling the Milky Way. I - Method and first results fitting the thick disk and halo with DES-Y3 data](#)”, *Monthly Notices of the Royal Astronomical Society* **tmp**, 2106P (2020).
12. M. Wang, S. Koposov, A. Drlica-Wagner, [A. Pieres](#), et al., “[Rediscovery of the Sixth Star Cluster in the Fornax Dwarf Spheroidal Galaxy](#)”, *Astrophysical Journal* **875L**, 13W (2019).
11. M. Wang, T. de Boer, [A. Pieres](#), T. Li, et. al., “[The morphology and structure of stellar populations in the Fornax dwarf spheroidal galaxy from Dark Energy Survey Data](#)”, *Astrophysical Journal* **881**, 118W (2019).
10. B. Santiago, E. Luque, [A. Pieres](#), A. B. Queiroz, “[Stellar Populations of the Outer Milky-Way Halo](#)”, *Proceedings of the International Astronomical Union* **334**, 29S (2018).

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<sup>1</sup>EXCLUDING THE PAPERS WHERE MY NAME IS LISTED BELOW THE FOURTH CO-AUTHOR. SEE THE COMPLETE LIST OF PAPERS IN THE LINK 'STATISTICS'.

9. E. Luque, B. Santiago, [A. Pieres](#), J. Marshall, et al., “[Deep SOAR follow-up photometry of two Milky Way outer-halo companions discovered with Dark Energy Survey](#)”, *Monthly Notices of the Royal Astronomical Society* **478**, 2006L (2018).
8. [A. Pieres](#), B. Santiago, A. Drlica-Wagner, K. Bechtol, et al., “[A stellar over-density associated with the Small Magellanic Cloud](#)”, *Monthly Notices of the Royal Astronomical Society* **468**, 1349P (2017).
7. E. Luque, [A. Pieres](#), B. Santiago, B. Yanny, et al., “[The Dark Energy Survey view of the Sagittarius stream: Discovery of two faint stellar system candidates](#)”, *Monthly Notices of the Royal Astronomical Society* **468**, 97L (2017).
6. E. Luque, A. B. Queiroz, B. Santiago, [A. Pieres](#), et al., “[Digging deeper into the Southern skies: a compact Milky Way companion discovered in first-year Dark Energy Survey data](#)”, *Monthly Notices of the Royal Astronomical Society* **458**, 2006L (2016).
5. [A. Pieres](#), B. Santiago, E. Balbinot, E. Luque, et al., “[Physical properties of star clusters in the outer LMC as observed by the DES](#)”, *Monthly Notices of the Royal Astronomical Society* **461**, 519P (2016).
4. K. Bechtol, A. Drlica-Wagner, E. Balbinot, [A. Pieres](#), et al., “[Eight New Milky Way Companions Discovered in First-year Dark Energy Survey Data](#)”, *The Astrophysical Journal* **807**, 50B (2015).
3. E. Balbinot, B. Santiago, L. Girardi, [A. Pieres](#), et al., “[The LMC geometry and outer stellar populations from early DES data](#)”, *Monthly Notices of the Royal Astronomical Society* **449**, 1129B (2015).
2. E. Martinazzi, S. O. Kepler, J. E. S. Costa, [A. Pieres](#), et al., “[New SX Phe variables in the globular cluster NGC 288](#)”, *Monthly Notices of the Royal Astronomical Society* **447**, 2235M (2015).
1. E. Martinazzi, [A. Pieres](#), S. O. Kepler, J. E. S. Costa, et al., “[Probing mass segregation in the globular cluster NGC 6397](#)”, *Monthly Notices of the Royal Astronomical Society* **442**, 3105M (2014).

## INVITED TALKS

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9. [Describing the thick disk and halo of the Galaxy as seen by the Dark Energy Survey](#), Reuniao da Sociedade Astronomica Brasileira. USP, SP, Brazil 2018 Sep 9-12
8. [Fitting the Milky Way structural parameters using DES data](#), Workshop: Near-Field Cosmology with the Dark Energy Survey’s DR1 and beyond, 2018. Chicago, USA. 2018 Jun, 27-29
7. [Fitting Milky Way structural parameters using stellar population synthesis: MWFitting pipeline](#), Lecture on Observatório do Valongo. Rio de Janeiro, Brazil. 2018 Sep, 25
6. [SMCNOD - A stellar over-density associated to the Small Magellanic Cloud](#), Third Winter School of the Valongo Observatory. Rio de Janeiro, Brazil. 2017 May, 22-26
5. [The Magellanic Clouds Outer Environment in Dark Energy Survey and MagLiteS](#), Latino America Regional IAU Meeting 2016. Cartagena de Indias, Colombia. 2016 Oct, 6

4. SMCNOD with MagLiteS and Y2Q1 Catalogs. Magellanic Satellites Survey Meeting (Telecon). 2016 Aug, 18
3. Search for Extended Structures in DESY2 Catalog. Dark Energy Survey Collaboration Meeting in SLAC National Accelerator Laboratory, California, USA. (Telecon). 2016 May, 6
2. Exploring LMC clusters from DES. Dark Energy Survey Collaboration Meeting - Ann Arbor, Michigan, USA (Telecon). 2015 May, 12
1. LMC clusters from SVA1-SPTE, Dark Energy Survey Collaboration Meeting - Sussex, UK (Telecon). 2014 May, 12

## **PARTICIPATION IN CONFERENCES**

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9. [Dark Energy Survey 2019 Meeting](#), Brighton, UK, 2019 Nov 4-8
8. [Hands-on about scientific codes on LIneA](#), LIneA-Bootcamp 2019, 2019 Sep, 2-6
7. [Describing the thick disk and halo of the Galaxy as seen by the Dark Energy Survey](#), XLIII Yearly Meeting of the Brazilian Astronomic Society, 2019 Sep, 9-12
6. [Dark Energy Survey 2018 Meeting](#), Campinas, SP, Brazil, 2018 Dec 3-7
5. [Large Synoptic Survey Telescope 2018 Project and Community Workshop](#), Tucson, Arizona, USA, 2018 Aug 13-17
4. [LIneA/LSST BPG week](#), Rio de Janeiro, RJ, Brazil, 2018 Sep, 24-28
3. [Precision Spectroscopy: abundances, nucleosynthesis and chemical evolution](#), Porto Alegre, RS, Brazil, 2016 Sep, 19-21
2. [Stellar completeness in the Dark Energy Survey SVA1 catalog \(Poster\)](#), XXXVIII Yearly Meeting of the Brazilian Astronomic Society, Buzios, RJ, Brazil 2014 Sep, 2
1. [Conference Galactic Nuclei and their Connection with Stars and the Environment](#), Gramado, RS, Brazil, 2014 Oct, 22-26

## **PROGRAMMING LANGUAGES**

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- Python 2.7 and 3.x
- Fortran 95
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## **AWARDS**

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- Scholarship for PhD Candidate *Conselho Nacional de Pesquisa/CNPq, Brazil, 2014-2017*
- PhD visiting Royal Observatory/Edinburgh *ESO, UK, Jan 2016*
- ESO-NEON course/La Silla Observatory *ESO, Feb-Mar 2016*

- Scholarship for Master Candidates *Conselho Nacional de Pesquisa/CNPq, Brazil, 2012-2013*
- Honor Mention, UFRGS, SEAD: *“For authorship and production of educational material to courses following the modality of distance learning in the University.”* 2012 Aug, 29

## TEACHING OBJECTS

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- [Celestial Planisphere](#)
- [Moon Planisphere](#)

## APPOINTMENTS

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Pos-doctorate fellow at Laboratorio Interinstitucional de e-Astronomia - LIneA (Observatorio Nacional, RJ, Brazil), affiliated to Dark Energy Survey	2017-present
Final stages of stellar evolution (volunteer professor for undergraduate students, UFRGS)	2018
Teacher of Physics (High school)	2009-2012

## TEACHING AND SUPERVISION

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Student: Sthiven Rapahel Correia Melo (Undergraduate Research, ON, RJ, Brazil) 2019-present