

Camila A. Correa

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| PERSONAL INFORMATION | Names: Camila Anahi Surname: Correa Nationality: Argentinian |
| CONTACT INFORMATION | Rm 307, David Caro Bld, Parkville University of Melbourne, Vic 3010 <i>E-mail:</i> correac@student.unimelb.edu.au <i>Mobile:</i> (+61)0414-171187 <i>Web:</i> http://www.ph.unimelb.edu.au/~correac |
| RESEARCH INTEREST | Cosmology, galaxy formation and evolution, cosmological simulations, dark matter halo properties, epoch of reionization. |
| ACADEMIC HISTORY | (2012 – present) PhD. in Physics School of Physics, University of Melbourne, Australia <ul style="list-style-type: none">• Thesis Topic: <i>Galaxy formation in hydrodynamical simulations</i>• Advisors: Prof. Stuart Wyithe & Dr. Alan R. Duffy• Area of Study: Cosmology (2006 – 2011) Master in Astronomy by Research Faculty of Astronomical and Geophysical Sciences University of La Plata, Argentina. <ul style="list-style-type: none">• Thesis Topic: <i>Thermodynamics of Regular Black Holes Interiors</i>• Advisor: Prof. Gustavo E. Romero• Area of Study: General Relativity |
| REFEREED PUBLICATIONS | A physical model for the concentration-mass relation. Correa, C.A.; Wyithe, J.S.B.; Schaye, J.; Duffy, A.R. (2014) To be submitted to MNRAS soon. Draft available on request. The physical origin of the universal accretion history of dark matter halos. Correa, C.A.; Wyithe, J.S.B.; Schaye, J.; Duffy, A.R. (2014) Submitted to MNRAS. An analysis of a Regular Black Hole Interior. Perez, D.; Romero, G.E.; Correa, C.A.; Perez-Bergiaffa S.E. Published in International Journal of Modern Physics: Conference Series. IF 1.183. IJMPS, 3, 01, 396 (2011). Thermodynamics of Regular Black Hole Interiors. Correa, C.A.; Romero, G.E.; Perez, D.; Perez-Bergiaffa S.E. Published in Bulletin of the Argentinian Astronomical Society. BAAA, 53, 231-234 (2010). |
| CONTRIBUTED TALKS AND POSTERS | <ul style="list-style-type: none">• Astronomical Society of Australia, Annual Scientific Meeting, Sydney, July 2014, talk. |

- Melbourne Area CAASTRO meeting, Swinburne University, July 2014, talk.
- 8th ANITA workshop, University of Sydney, February 2014, talk.
- Reionization at the Red Centre, Uluru, July 2013, poster.
- Astronomical Society of Australia, Annual Scientific Meeting, Melbourne, July 2013, poster.
- Feeding, Feedback and Fireworks, Hamilton Island, Australia, June 2013, talk.
- 7th ANITA workshop, University of Queensland, February 2013, talk.
- The 10th Annual Stromlo Student Christmas Seminars, Australian National University, November 2012, talk.
- Grav11, University of Cordoba, Argentina, April 2011, talk.
- Astronomical Society of Argentina, 53th Annual Scientific Meeting, Salta, Argentina, September 2010, poster.

AWARDS/ DISTINCTIONS

- (2013) **The John Hodgson Scholarship.** The John Hodgson Scholarship is a highly competitive funding program that biennially awards postgraduate research students enrolled at the University of Melbourne with AU\$6,000. I was awarded the scholarship in 2013 to study at the University of Leiden with Prof. Joop Schaye for a period of 3 months (09-12/2013).
- (2013) **Australian Astronomical Observatory Fund** to attend and give an oral presentation at the conference ‘Feeding, Feedback and Fireworks’, Hamilton Island, Australia (AU\$450).
- (2012–2013) **Awarded 1 million CPU hours** at EPIC, iVEC for DRAGONS project.
- (2012 – 2016) **Laureate scholarship** granted by Prof. Wyithe Australian Research Council Laureate Fellowship (AU\$ 27K p.a.)
- (2008 – 2011) **Research fellowship** granted by Astronomy Faculty, University of La Plata, Argentina (ARG\$ 3,000 per year for 3.5 years). I worked on computation of elliptic Functions under the supervision of Prof. Hector Vucetich.

EXPERIENCE LEADERSHIP

(2013 – present) Student Representative of **Australian National Institute for Theoretical Astrophysics** (ANITA). ANITA is an Australia wide institute consisting of members drawn from different Universities and other astronomical institutions. It is a cooperative organization that has a broadly based and fundamental role in the promotion of theoretical astrophysics. I was elected as student representative, part of the ANITA steering committee, in 2013 and again in 2014 by the students members of ANITA.

Present Member of the scientific organizing committee of the **ANITA workshop and astroinformatics summer school 2015.**

TEACHING

(**2013 – present**) Teacher assistant in **Thermal and Classical Physics**. This course is taught at the School of Physics, University of Melbourne (Australia), for second year undergraduate students. I am in charge of helping students to solve exercises, mark short-mid tests, assignments and final examinations.

(**2010 – 2011**) Teacher assistant in Classical Physics. This course is taught at the Faculty of Astronomy and Geophysics, University of La Plata (Argentina) for third year masters students. I was in charge of helping students to solve exercises.

(**2010 – 2011**) Teacher assistant in Algebra. This annual course is taught at the Faculty of Exact Science, Mathematics Department, University of La Plata (Argentina) for first year masters (master in astronomy, physics, mathematics and geophysics) students. I was in charge of helping students to solve exercises and of marking the mid and final tests.

(**2009/2011**) Teacher assistant in Basic Calculus at the entrance course for Master degree. Each year the Faculty of Astronomy and Geophysics provides a supporting entrance course in basic calculus for first year students before they take the first year subjects. This is an intensive course that lasts 2 months with a 2 hour tutorial class per day. I was in charge of explaining basic calculus as well as marking the final examination.

OUTREACH

(**2012 – 2013**) Tutor of the Cosmology Laboratory to high-school students. Each year the astrophysics group from the University of Melbourne explains various subjects related to astrophysics to high-school students. I was in charge of teaching the Cosmology Laboratory, where the students learn about the expansion of the Universe, redshift and distances using an interactive computer program.

SKILLS

- I have extensive experience in programming in IDL and Fortran. Good knowledge of C and of massively parallel codes, e.g. Gadget and SubFind. Basic knowledge of Python.
- English (TOEFL examination in 2011) and Spanish (native).

REFERENCES

1. Prof. Stuart Wyithe. University of Melbourne, David Caro Bld, Parkville, Victoria 3010, Australia. *E-mail*: swyithe@unimelb.edu.au
2. Prof. Joop Schaye. Leiden Observatory, P.O. Box 9513, 2300 RA Leiden, Netherlands. *E-mail*: schaye@strw.leidenuniv.nl
3. Dr. Alan Duffy. Swinburne University of Technology, PO Box 218, Victoria 3122, Australia. *E-mail*: mail@alanrduffy.com
4. Prof. Gustavo Romero. Instituto Argentino de Radioastronomía, Casilla de Correos No. 5, 1894 Villa Elisa, Buenos Aires, Argentina. *E-mail*: romero@iar.unlp.edu.ar