Camila Correa - Postdoctoral researcher

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Research Interest

Cosmology, galaxy formation and evolution, dark matter, cosmological simulations.

Work experience

(**2016 – present**) **Postdoctoral research fellow**
Leiden Observatory, Leiden University, The Netherlands
- Advisor: Prof. Joop Schaye

Education History

(**2012 – 2016**) **PhD. in Physics**
School of Physics, University of Melbourne, Australia
- Thesis Title: *The accretion history of dark matter halos.* Date: 21 Jun 2016.
- 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.
- Thesis Title: *Thermodynamics of Regular Black Holes Interiors*
- Advisor: Prof. Gustavo E. Romero
- Area of Study: General Relativity

Refereed Publications

I have 8 first author refereed publications out of 11 articles in total, with a combined citation count of 176; h-index of 6, g-index of 11 and e-index of 11.7. The impact factor of the Monthly Notices of the Royal Astronomical Society Journal (MNRAS) is 4.69. Below details of 8 recent publications.

Correa, C. A.; Schaye, J.; and Trayford, J. W. (2018). Submitted to MNRAS. *The origin of the red sequence galaxy population in the EAGLE simulation*.

Correa, C. A.; Schaye, J.; van de Voort F.; Duffy A. R. and Wyithe J. S. B. (2018). MNRAS, 478, 225. *The impact of feedback and the hot halo on the rates of gas accretion onto galaxies*.

Correa, C. A., Schaye J., Wyithe J. S. B., Duffy A. R., Theuns T., Crain R. A., Bower R. G. (2018). MNRAS, 473, 538. *The formation of hot gaseous haloes around galaxies*. Citations: 7.

Trayford, J. W., Frenk, C.; Theuns, T.; Schaye, J.; **Correa, C. A.** (2018). *The star formation rate and stellar content contributions of morphological components in the EAGLE simulations*. Submitted to MNRAS.

Correa, C. A.; Schaye, J.; Clauwens, B.; Bower, R. G.; Crain, R. A.; Schaller, M.; Theuns, T.; Thob, A. C. R. (2017) MNRAS Letters, 472, issue 1, L45. *The relation between galaxy morphology and colour in the EAGLE simulation*. Citations: 8.

Correa, C.A.; Wyithe, J.S.B.; Schaye, J.; Duffy, A.R. (2015c) MNRAS, 452, 1217. *The accretion history of dark matter haloes - III. A physical model for the concentration-mass relation*. Citations: 72.

Correa, C.A.; Wyithe, J.S.B.; Schaye, J.; Duffy, A.R. (2015b) MNRAS, 450, 1521. *The accretion history of dark matter haloes - II. The connections with the mass power spectrum and the density profile*. Citations: 33.

Correa, C.A.; Wyithe, J.S.B.; Schaye, J.; Duffy, A.R. (2015a) MNRAS, 450, 1514. *The accretion history of dark matter haloes - I. The physical origin of the universal function*. Citations: 38.

Supervision

10/2017 – 12/2017. Doctorate committe of Bart Clauwens PhD. Thesis
9/2017 – 8/2018. **Master student: Malavika Vasist**. Thesis title: *The impact of mergers on galaxy properties in the EAGLE simulations.* Main supervisor, faculty co-supervisor: Joop Schaye.
9/2016 – 8/2017. **Master student: Vijayan P. Aswin**. Thesis title: *Analysing the impact of environment on the concentration of dark matter halos.* Main supervisor, faculty co-supervisor: Joop Schaye.

Awards/ Distinctions

(**2013**) **The John Hodgson Scholarship**. Travel grant: AU$6,000.
(**2013**) **Australian Astronomical Observatory Fund.** Travel grant: AU$450.
(**2012–2016**) **Laureate scholarship** granted by Prof. Wyithe Australian Research Council Laureate Fellowship (AU$ 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).

Contributed talks and posters

- 12/2017 - International conference - Virgo Meeting, Germany, talk.
- 07/2017 - International conference - The circle of life. South Africa, talk.
- 04/2017 - Seminar talks at Swinburne University & the University of Melbourne.
- 12/2016 - Eagle Meeting Durham, UK, talk.
- 10/2016 - NOVA Galaxies and Cosmology meeting. Leiden, talk.
- 09/2016 - International conference - The fate of gas flows in galaxies. Italy, talk.
- 06/2015 - Astronomical Society of Australia (ASA), Annual Meeting, Perth, talk.
- 07/2014 - ASA, Annual Meeting, Sydney, talk.
- 07/2014 - Melbourne Area CAASTRO meeting, Swinburne University, talk.
- 02/2014 - 8th ANITA workshop, University of Sydney, talk.
- 07/2013 - Reionization at the Red Centre, Uluru, poster.
- 07/2013 - ASA, Annual Meeting, Melbourne, poster.
- 07/2013 - International conference - Feeding, Feedback and Fireworks, Hamilton Island, Australia, talk.
- 02/2013 - 7th ANITA workshop, University of Queensland, talk.

Leadership experience

(**2013–2016**) Student Representative of **Australian National Institute for Theoretical Astrophysics** (ANITA).
2015 Scientific organizing committee of the **ANITA workshop and astroinformatics summer school 2015.**

Teaching experience

(**2013 – 2015**) Teacher assistant in **Thermal and Classical Physics**, at the School of Physics, University of Melbourne (Australia), for second year undergraduate students.
(**2010 – 2011**) Teacher assistant in Classical Physics, at the Faculty of Astronomy and Geophysics, University of La Plata (Argentina) for third year masters students.
(**2010 – 2011**) Teacher assistant in Algebra, at the Faculty of Exact Sciences, Mathematics Department, University of La Plata (Argentina) for first year masters (master in astronomy, physics, mathematics and geophysics) students.
(**2009/2011**) Teacher assistant in Basic Calculus at the Faculty of Astronomy and Geophysics, University of La Plata (Argentina).

Outreach

(**2012 – 2013**) Tutor of the Cosmology Laboratory to high-school students visiting the University of Melbourne.
(**2018**) Member of Discovery Club program from Leiden University.

Miscellaneous

(**2016–2017**) Organiser of the short scientific talk series at Leiden Obervatory.
(**2016 – present**) Reviewer for the Monthly Notices of the Royal Astronomical Society Journal (MNRAS).

Skills

- Programing languages: IDL, Python, Fortran and C, and of massively parallel codes, e.g. Gadget and SubFind.
- English (fluent), Spanish (native), Dutch (basic, level A2).