

CAMILA CORREA

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• EDUCATION

- 21 Jun 2016 **PhD in Physics**, University of Melbourne, Australia
Topic: Cosmology and Galaxy formation
Thesis: *The accretion history of dark matter halos*
Supervisors: Prof. Stuart Wyithe & Prof. Alan R. Duffy
- 11 Nov 2011 **Master in Astronomy**, University of La Plata, Argentina, 6 years, B.Sc & M.Sc.

• CURRENT & PREVIOUS POSITIONS

- 2023 - Present **Permanent researcher (current position)**
CEA Paris-Saclay, DFR/IRFU/DAP/LECG
- 2019 - 2023 **NWO-VENI Fellow**
Institute of Physics, University of Amsterdam, Amsterdam, The Netherlands
- 2016 - 2019 **Postdoctoral Researcher**
Leiden Observatory, Leiden University, Leiden, The Netherlands
Member of Prof. Joop Schaye group, EAGLE simulations team.

• SCIENTIFIC PRODUCTION (as of March 2024)

(Co-)Author of 23 scientific papers (12 as first author) in top-journals (notably, none of these papers contain more than seven authors, with a majority containing around three). Total number of citations: 974 (708 in first author papers). h-index of 17 and g-index of 20.

• FELLOWSHIPS, GRANTS & AWARDS

- 2020 **HPC-Europa3 Individual Research grant**. 120k core-CPU hours & €3k.
- 2019 **NWO-VENI Fellowship (PI)** (€250 k), Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO), Amsterdam (The Netherlands) .
The VENI grant is a prestigious research grant in the Netherlands. The Dutch research council awards the grant yearly to the top 160 young researchers from all scientific areas. The award rate is 10%.
- 2013 **The John Hodgson Scholarship Research grant** (AU\$3k) University of Melbourne
- 2012 - 2016 **Research Fellowship** (AU\$27k p. a.) Granted by Prof. Wyithe, Australian Research Council Laureate Fellowship, University of Melbourne, Australia
- 2008 - 2011 **Research Fellowship** (ARG\$3k p. a.) Faculty of Astronomy, University of La Plata, Argentina

• SUCCESSFUL PROPOSALS (Computing Projects)

- 2022 **Surfsara (Dutch Network) 0.5M** core-CPU hours, TangoSIDM (PI)
- 2021 **PRACE (European Network) 5M** (5 Million) core-CPU hours, TangoSIDM (PI)
- 2020 **Surfsara (Dutch Network) 1M** core-CPU hours, TangoSIDM (PI)
- 2020 **PRACE (European Network) 50M** core-CPU hours, EAGLE collaboration, (PI: Joop Schaye)

• TEACHING ACTIVITIES

I have served as a teaching assistant for a variety of different courses. I guided laboratories and practice sessions, graded exams, occasionally filled in as a lecturer (when the staff was away on conferences), and wrote homework and exam problems.

- 2009 - 2015 **Teacher assistant** in Thermal & Classical Physics (3 years), University of Melbourne (Australia). Also in Classical Physics, Algebra & Calculus (4 years), University of La Plata (Argentina)

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• STUDENT SUPERVISION

I have had the privilege over the last few years to serve as an advisor, mentor and co-supervisor to 10 students from diverse backgrounds. I list below the projects of my most recent students.

- 2021 - 2024 **Noemi Anau Montel.** PhD Student, University of Amsterdam.
Supervisor of her project, *Signatures of self-interacting dark matter in local dwarf galaxies*. Faculty co-supervisor: A/Prof. Christoph Weniger.
- 2021 - 2023 **Fabian Zimmer.** PhD Student, University of Amsterdam.
I am co-supervising his project, *Local Neutrino Clustering*, with faculty supervisor, A/Prof. Shinichiro Ando
- 2022 - 2024 **Leon Kamermans.** Master Student, University of Amsterdam.
I am co-supervising his project, *Signatures of self-interacting dark matter in black hole binaries*, with faculty supervisor, Prof. Gianfranco Bertone
- 2021 - 2022 **Athythia Aravinthan.** Master Student, University of Amsterdam. Thesis: *Evolution of satellite galaxies under gravothermal core-collapse*. Co-supervisor: Shinichiro Ando.
- 2020 - 2021 **Androniki Dimitriou.** Master student, University of Amsterdam. Thesis: *Reconstructing the halo spatial distribution and halo mass function using Neural Networks*. Co-supervisor: Christoph Weniger.
- 2016 - 2020 **Additional supervision of 5 students from Leiden University with Prof. Joop Schaye during 2016-2020**

• ORGANISATION OF SCIENTIFIC MEETINGS

- February 2024 **Organiser of conference:** *Building Galaxies from Scratch: Advances and Challenges in Simulation Galaxy Evolution*, at University of Vienna, Austria
- June 2023 **Organiser of workshop:** *Self-interacting Dark Matter: Models, Simulations and Signals*, at Pollica Physics Center (Italy) with Prof. Manoj Kaplinghat, A/Prof. Haibo Yu and A/Prof. Laura Sagunski.
- Sept. 2023 **Organiser of workshop:** *Towards unified sub-grid prescriptions for galaxy modelling*, at Lorenz Center (Leiden, The Netherlands), with Dr. Matthieu Schaller, Dr. Robert Crain, Dr. Azadeh Fattahi and Dr. Yves Revaz.
- 2020 **Scientific organising committee & Chair of Symposia:** Stellar & Gas Kinematics in Galaxies, European Astronomical Society Annual Meeting (Online Meeting)
- 2020 **Scientific organising committee.** Annual meeting. Virgo Consortium of Cosmological Supercomputer Simulations (PIs: Carlos Frenk, Simon White) (Online Meeting)

• INSTITUTIONAL RESPONSIBILITIES

- 12/2022 **Doctorate committee.** University of La Laguna (Spain). Member of the Doctorate committee to evaluate the PhD Thesis of Daniel Walo Martín.
- Present Mentor program for PhD students and postdocs of GRAPPA/Institute of Physics (UvA).
- 2020 - 2022 **Institute of Physics. GRAPPA equity, inclusion and diversity committee**
Organising talks and open discussions on topics of gender equality and inclusion
- 2017 **Doctorate committee.** Leiden University. Member of the Doctore committe to evaluate the PhD Thesis of Bart Clauwens.
- 2016 - 2017 Organiser of the short scientific talk series at Leiden Observatory.
- 2013 - 2016 **Student Representative of ANITA.** Australian National Institute for Theoretical Astrophysics (ANITA) is a cooperative organisation that has a fundamental role in the promotion of theoretical astrophysics.

• REVIEWING ACTIVITIES

I am regularly asked to review articles for prestigious journals including Astronomy & Astrophysics, Astrophysical Journal and MNRAS. I have acted as expert reviewer for the Dirac (UK) computational resources allocation committee.

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• CONTRIBUTED TALKS in international conferences

- Coming: August 2024 *Invited review Speaker. “Cosmological simulations as a test of the nature of dark matter”. TeV Particle Astrophysics conference in Chicago, US
- November 2022 *Invited Speaker. “An SPH-inspired implementation of Self-Interacting Dark Matter”, SWIFTCO meeting, Leiden, The Netherlands
- July 2022 Virgo annual meeting. Munich, Germany
- July 2022 Identification of Dark Matter meeting. Vienna, Austria
- June 2022 European Astronomical Society (EAS) annual meeting. Symposia: The dark matter multi-messenger challenge. Valencia, Spain.
- June 2022 EAS annual meeting. Symposia: Dwarf galaxies beyond the Local Group: a new frontier in the era of deep-wide surveys and high-resolution simulations. Valencia, Spain.
- June 2021 EAS annual meeting. Symposia: The Gaia revolution in Milky Way modelling. Leiden, The Netherlands
- June 2020 *Invited review Speaker. “The dependence of the galaxy stellar-to-halo mass relation on galaxy morphology”. EAS annual meeting. Crossing the characteristic mass scales in galaxy evolution. Leiden, The Netherlands (virtual).
- February 2020 2nd Australia-ESO Joint Conference, Australia.
- Sept. 2019 *Invited Speaker. “Low-metallicity regions as indicators of recent gas inflow”. Circumgalactic meeting, Berlin, Germany.
- Dec. 2018 Virgo annual meeting. Leiden, The Netherlands
- 2013-2022 **Total of 25 contributed talks in international meetings & conferences**

• INVITED SEMINARS & COLLOQUIA

- 12 Dec. 2022 Kapteyn Institute, University of Groningen, Groningen, The Netherlands
- Nov. 2022 Geneva Observatory (EPFL), Geneva, Switzerland
- Oct. 2022 Instituto de las Ciencias del Cosmos (ICCUB), Barcelona, Spain
- Oct. 2022 Institute of Astrophysics in Canary Islands (IAC), Tenerife, Spain
- March 2021 Physics Institute, University de la Católica, Valparaíso, Chile (Virtual)
- Nov. 2020 University of Nottingham, UK (Virtual)
- July 2020 University of Durham, ICC, UK (Virtual)
- June 2020 University of Amsterdam, GRAPPA Institute, Netherlands (Virtual)
- March 2020 Swinburne University, Australia
- Feb. 2020 University of Western Australia, Australia
- April 2019 DIPC, San Sebastian, Spain