ADRIANO POCI

PERSONAL INFORMATION

| email | adriano.poci@ physics.ox.ac.uk |
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| ORCiD | 0000-0002-5422-7441 |
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GOAL

Lead: 6

To use my skills and knowledge acquired through university to continue to study the Universe as a full-time career.

PUBLICATIONS

Metrics h-index: 13 · All Publications (NASA/ADS)

> Poci, A., McDermid, R. M., Lyubenova, M., Martín-Navarro, I., et al. (2022). "The Fornax3D Project: Intrinsic Correlations between Orbital Properties and the Stellar Initial Mass Function". Monthly Notices of the Royal Astronomical Society 514(3), pages 3660–3669. ISSN: 0035-8711. DOI: 10.1093/mnras/stac1514

Poci, A. and Smith, R. J. (2022). "Comparing Lensing and Stellar Orbital Models of a Nearby Massive Strong-Lens Galaxy". Monthly Notices of the Royal Astronomical Society 512(4), pages 5298–5310. ISSN: 0035-8711. DOI: 10.1093/mnras/stac776

Poci, A., McDermid, R. M., Lyubenova, M., Zhu, L., et al. (2021). "The Fornax3D Project: Assembly Histories of Lenticular Galaxies from a Combined Dynamical and Population Orbital Analysis". Astronomy & Astrophysics 647, A145. ISSN: 0004-6361, 1432-0746. DOI: 10.1051/0004-6361/202039644

Poci, A., McDermid, R. M., Zhu, L., and van de Ven, G. (2019). "Combining Stellar Populations with Orbit-Superposition Dynamical Modelling: The Formation History of the Lenticular Galaxy NGC 3115". Monthly Notices of the Royal Astronomical Society 487(3), pages 3776–3796. ISSN: 0035-8711. DOI: 10.1093/mnras/stz1154

Poci, A., Cappellari, M., and McDermid, R. M. (2017). "Systematic Trends in Total Mass Profiles from Dynamical Models of Early-Type Galaxies". Monthly Notices of the Royal Astronomical Society 467(2), pages 1397-1413. ISSN: 0035-8711. DOI: 10.1093/mnras/stx101

Poci, A., Kuehn, K., Abbott, T., Abdalla, F. B., et al. (2016). "DESAlert: Enabling Real-Time Transient Follow-Up with Dark Energy Survey Data". Publications of the Astronomical Society of Australia 33, e049. ISSN: 1323-3580, 1448-6083. DOI: 10.1017/pasa.2016.42

Contributor: 16 Co-Author Subset

ACADEMIC POSTS

Research Fellow

University of Oxford, Oxford, United Kingdom 2023-present

A research fellowship in order to undertake ground-breaking research in astrophysics. Specifically, my

work involves first developing, then using, state-of-the-art models to better understand the history and evolution of galaxies. The position additionally includes optional teaching/college duties, as well as the organisation of group meetings, talk events, and assistance in the supervision of students.

2021-2023 Durham University, Durham, United Kingdom

Post-Doctoral Research Associate

A primarily-research position studying the stellar Initial Mass Function in external galaxies, using a broad variety of techniques. These include direct modelling of the stellar light via their spectra, the modelling of the galaxy mass via strong gravitational lensing, and the combined modelling of the

stellar content via sophisticated dynamical models. The position also includes teaching duties of undergraduate students, organising group meetings, and assistance in the supervision of research students.

EDUCATION

| | 2016-2021 | Macquarie University, Sydney, Australia | |
|------------------------------|---|---|--|
| Doctorate of Philosophy | School: Astronomy and Astrophysics Description: The Doctorate of Philosophy program, which is a full-time research position, where I developed sophisticated modelling techniques combining stellar population and stellar dynamical measurements in a robust way for the first time. Other duties included applying for telescope time, organising group meetings, supervising undergraduate laboratories, and presenting my work at conferences. The outcome of the degree was a series of papers, collated into a thesis. | | |
| | 2015 | Macquarie University, Sydney, Australia | |
| Master of Research | Grade: 82% · School: Astronomy and Astrophysics Description: The second year of the Master of Research program is devoted entirely to research. I constructed dynamical models of galaxies to constraint the Initial Mass Function. This year involved international collaborations, conference attendance, and writing journal articles, in addition to the research and Thesis writing. The outcome of the degree was a paper, and formal thesis. | | |
| | 2014 | Macquarie University, Sydney, Australia | |
| Bachelor of Philosophy | or of GPA: 3.750 (4-pt. scale) School: Astronomy and Astrophysics ophy Description: As the first year of the Master of Research program, this course extended on the Bachelor of Science, with emphasis on real-world physics and applications to real readdition, it dealt with more advanced content, including magnetohydrodynamics, Bell's In thermodynamics. | | |
| | 2011–2013 | Macquarie University, Sydney, Australia | |
| Bachelor of Science | GPA: 3.545 (4-pt. scale) \cdot School: Astronomy and Astrophysics Description: Extensively covered advanced topics in quantum physics, solid-state and particle physics, astronomy instrumentations, and astrophysical theories. I took additional non-compulsory mathematics courses. | | |
| | 2009-2010 | Bossley Park High School, Sydney, Australia | |
| Higher School Certificate | ATAR: 89.35 (99.95-pt. scale) | | |
| | ACADEMIC EXPERI | ENCE AND AWARDS | |
| Collaborations | GECKOS Coordinator of t | the Dynamical Models Science Working Group for the survey | |
| | MaNGA Strong-Lens Follow-Up Lead dynamical modelling effort with Schwarzschild models of targetted strong-lens galaxies | | |
| | MAGPI Targetted dynamical modelling project of high-quality sub-sample Support general dynamical modelling of full sample 3D modelling of the observational point-spread function | | |
| | DYNAMITE | | |
| | Code development, feature implementation, and bug fixing Giving instructional talks at dedicated workshops on use of the package | | |
| | Fornax3D Leading dynamical model of high-quality sub-sample for developing new Schwarzschild methods Providing model products for use by the team on subsequent analyses Support dynamical modelling of full sample | | |
| | SAMI Support dynam | ical modelling effort with Schwarzschild models for the full sample | |
| | - rr | 0 T | |

| | Scientific input on stellar dynamics works | | |
|-------------------|---|--|--|
| Awards | 2018 · European Southern Observatory (ESO) Studentship Programme | | |
| | 2014 \cdot Australian Institute of Physics Prize for the Masters of Research Program in Physics | | |
| | 2014 \cdot Invitation to join, and acceptance into, the Golden Key International Honour Society | | |
| | 2014 · Macquarie University Summer Vacation Scholarship | | |
| | 2013 · Macquarie University Summer Vacation Scholarship | | |
| Research/External | 2019 \cdot Scientific Assistant on the Observing Programmes Committee (OPC) at ESO | | |
| Experience | 2019 · 12 months full-time research at ESO (Garching) | | |
| | 2018 · Working visit to ESO (Garching) | | |
| | 2018 · Working visit to MPIA (Heidelberg) | | |
| | 2017 · Participation in ASA IDEA Diversity in Astronomy Workshop | | |
| | 2017 \cdot Working visit to MPIA (Heidelberg) and ESO (Garching) | | |
| | 2015 · Working visit to Oxford University | | |
| Observing Time | ESO VLT P110 \cdot 317 h MUSE (\sim €2.5M / CoI) | | |
| | ALMA Cycle 9 · 4.7 h (~ €116k / CoI) | | |
| | ESO VLT P109 · 6 h MUSE (~ \in 50k / PI) | | |
| Journal Referee | Web of Science Profile | | |
| | 2022 onwards · PASA | | |
| | 2017 onwards · MNRAS | | |
| Invited Talks | 2022 · Swinbourne University Colloquium | | |
| | 2022 · Bridging Gaps Between Dynamical Probes of Galaxies Lorentz Centre Workshop | | |
| | 2021 · MPIA Heidelberg Galaxy Coffee Seminar | | |
| | 2020 · Dynamical Reconstruction of Galaxies Lorentz Centre Workshop | | |
| | 2017 · MPIA Heidelberg Galaxy Coffee Seminar | | |
| | 2016 · The Universal Problem of the Non-Universal IMF Lorentz Centre Workshop | | |
| Contributed Talks | 2022 · Linking the Galactic and Extragalactic | | |
| | 2022 · 4th Philip Wetton Workshop | | |
| | 2021 · NAM2021 - Beyond 1D | | |
| | 2021 · NAM2021 - DM Lensing | | |
| | 2021 · GalSpec2021 | | |
| | 2020 · Linking the Galactic and Extragalactic virtual meeting | | |
| | 2019 · Fornax3D Collaboration Meeting Heidelberg | | |
| | 2019 · ESO Wine and Cheese Seminar | | |
| | 2019 · Universitäts-Sternwarte München Computational Astrophysics Group Meeting | | |
| | 2019 · The Life and Death of Star-Forming Galaxies | | |
| | 2018 · Fornax3D Collaboration Meeting Padova | | |
| | 2018 · Astronomical Society of Australia's (ASA) Annual Scientific Meeting | | |
| Posters | 2017 · Astronomical Society of Australia's (ASA) Annual Scientific Meeting | | |
| Non-Research | Stargoal · Assisted running sessions with primary school students | | |
| | Street Cosmos \cdot Ran a gravitational-lensing demonstration within the Street Cosmos exhibition at Blackhall to groups of 5 – 15-year-olds. | | |

COMPUTER SKILLS

| Advanced | Physical Hardware builds | • Wolfram Mathematica |
|--------------|------------------------------|---------------------------------|
| | • BASH | Mathworks MATLAB |
| | Microsoft WINDOWS and OFFICE | • SQL |
| | • PYTHON | • Ventana Systems UK VENSIM |
| • Exelis idl | | • QSUB and SLURM queue software |
| | | |
| Intermediate | • LATEX | • FORTRAN |
| | • XML | • HTML |
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| | OTHER INFORMATION | |
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| Languages | English · Mothertongue | |
| | Italian · Good | |
| | German · A.1.1 | |

Interests Drums · Music · Running · Football · Backyard Astronomy · Reading · Programming

January 24, 2024