Richard Alexander

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rdalexander.github.io

Employment

Professor of Theoretical Astrophysics (2019-)

Reader (Associate Professor) in Theoretical Astrophysics (2015–2019)

Lecturer in Theoretical Astrophysics (2009-2015)

STFC Advanced Fellow (2009–2015) [Paternity leave: March–June 2012]

2007 - 2009 Sterrewacht Leiden, Leiden University

Postdoctoral Fellow

2005 - 2007 JILA, University of Colorado

Postdoctoral Research Associate

Education

2002 - 2005 Institute of Astronomy, University of Cambridge

PhD in Astrophysics

Supervisor: Prof. Cathie Clarke

1997 - 2002 University of Edinburgh

MPhys(Astrophysics) with First Class Honours

Research Supervision

PhD students Simin Tong (2022-); Giulia Ballabio (2017-20); Tom Hands (2012-16); Alex Dunhill (2010-

13)

Postdocs Sahl Rowther (2022–); Alison Young (2019–21); Andrew Winter (2019–20); Enrico Ra-

gusa (2018-21); Rebecca Nealon (2017-20); Cassandra Hall (2017-20); Giovanni Dipierro

(2017-19); Stephen Fendyke (2014-16)

Pre-doctoral Sarah Crick (née Smedley), SURE summer research student (2010); Daniel Harsono, MSc

research project (Leiden University; 2008-09)

Current Teaching & Lecturing

2022 - . . . Lecturer & module lead (2023-) for 4th-year course SMBHs & Large-scale Structure

2021 - . . . Departmental postgraduate tutor (i.e., PhD programme director)

Lecturer & module lead (2022-) for 3rd-year course Quasars & Cosmology

2015 - . . . Lecturer & module lead (2017-) for 1st-year core physics course Waves & Quanta

2011 - . . . Module lead for postgraduate course Formation of Planetary Systems, University of Le-

icester & Midlands Physics Alliance Graduate School (MPAGS)

Research Grants (as Principal Investigator)

2022 - 2026 Science & Technology Facilities Council (UK)

PI of funded project (£525k) within departmental Consolidated Grant (£1.5M total)

Research Grants (as Principal Investigator) (continued)

2016 - 2021	European Research Council (EU) Consolidator Grant (€1.95M, PI)
2014 - 2017	The Leverhulme Trust (UK) Philip Leverhulme Prize (£70k, PI)
2013 - 2016	Science & Technology Facilities Council (UK) PI of funded project (£154k) within departmental Consolidated Grant (£4.8M total)
2009 - 2015	Science & Technology Facilities Council (UK) Advanced Fellowship (£498k, PI)

Large Facility Awards

- Competitively-allocated large awards on the NCSA (USA), NCF (Netherlands) and DiRAC (UK) high-performance computing facilities, totalling over 60 million CPU hours. Recent highlights include PI awards on DiRAC in 2021, 2023 & 2025.
- More than 20 competitively-allocated observing time awards on international telescopes. Recent highlights include large programmes on the ESO Very Large Telescope and the Hubble Space Telescope (Odysseus), and projects on JWST and ALMA.

Service & Peer Review

- Grants panel membership: STFC Ernest Rutherford Fellowships (2020–2024); PRACE-DECI (2020); NASA Origins of Solar Systems (2010, 2013)
- Referee for Science, Nature, ApJ, ApJL, ApJS, MNRAS, AJ, A&A, New Astronomy Reviews, Space Science Reviews: typically 4–6 articles per year.
- Review of grant applications for STFC, UKRI, Royal Society, RAS, Leverhulme Trust (UK), NASA (USA), NWO (Netherlands), FWF (Austria), CSCS (Switzerland), CONICYT (Chile).

Selected Invited Talks

2024	Formation of the protosolar disk & its first planetesimals, Collège de France (invited lecture)
2023	Core-to-Disk III, Saclay, France (keynote review)
2020	The Solar-Stellar Connection, Warwick, UK (summer school lecturer)
2018	Where are the young planets?, Madrid, Spain (keynote review)
2017	The migration issue, Cambridge, UK (conference-opening review)
2016	Star formation 2016, Exeter, UK (keynote review)
2014	Protoplanetary disks and planets, Santiago, Chile (keynote review)
2013	Protostars & Planets VI, Heidelberg, Germany (PI of review chapter)

Publication & Citation Summary

- 88 peer-reviewed papers (published or in press)
- 21 peer-reviewed papers as lead author
- 27 peer-reviewed papers lead-authored by students and postdocs under my supervision
- > 5000 total citations; h-index of 40