### 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**

- 87 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 39