

Dr. Robert Martin Yates

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Main Research Interests

Theoretical:

Galaxy evolution simulations; Galaxy chemical enrichment (GCE); SN & AGN feedback;
Complex molecules & habitability; Binary stellar yields; Dust production & destruction.

Observational:

Mass – metallicity relation; Direct and indirect abundance diagnostics; Cosmic SFR density;
IFU studies & radial gradients; Milky Way stellar chemistry; GRB/SLSN host galaxies.

Work & Education

10/2025 - present: Programme Leader (Data Science Apprenticeships), University of Hertfordshire (UH), UK

02/2024 - present: Senior Lecturer, UH, UK

10/2022 - 01/2024: CAR Fellow, UH, UK

09/2020 - 09/2022: Postdoc, University of Surrey (UoS), UK

09/2017 - 08/2020: MPA Fellow, Max-Planck-Institut für Astrophysik (MPA), Germany

09/2014 - 08/2017: Postdoc, Max-Planck-Institut für Extraterrestrische Physik (MPE), Germany

09/2010 - 05/2014: Ph.D. (Dr. rer. nat.), MPA & Ludwig-Maximilians-Universität (LMU), Germany

Grade: 1.2 (Magna cum laude)

Thesis title: The Chemical Evolution of Galaxies in Semi-Analytic Models and Observations

09/2004 - 07/2009: MSci Physics, Imperial College London (IC), UK

Thesis title: Analysis of the diffracted light around a coronagraphic external occulter
(carried-out under Erasmus Programme at l'Università degli Studi di Padova, Italy)

Grants & Fellowships

Global Engagement Fund Grant (2025)

Funding to host visiting collaborator (£2,200)

CAR Fellowship (2022 - 2024)

Including access to high-performance computing at the UH-HPC

MPA Fellowship (2017 - 2020)

Including access to high-performance computing at the MPCDF

Marie Curie Early Stage Researcher grant (April 2013)

PI: Prof. Peter Thomas (University of Sussex, UK)

Publication Statistics (ADS, January 2026)

h-index: 23 **g-index:** 44 **i10-index:** 30

Total Citations: 2020 **1st-author Citations:** 601

Total Papers: 77 **1st-author Papers:** 8

Committees, Working Groups, & PhD panels

PhD Internal examiner, Brian Bichang'a, UH, (06/2026)

PhD Internal examiner, Chloe Bosomworth, UH, (05/2025)

HRMOS Science Working Group 1 - Planet Science, (01/2025 - present)

Lecturer Selection Panel, UH, (10/2024)

PhD Selection Panel, UH, (03/2024)

PhD Student Committee, Isha Shailesh, PUC Chile, (12/2023 - present)

SKA Cosmology Science Working Group, (11/2023 - present)

ERIS/PhyloGal Initiative, Associate partner, (11/2021 – present)

EDGE, Chemical Evolution working group, (05/2021 – present)

L-GALAXIES, Lead Developer, (11/2019 – present)

Virgo Consortium, Diversity Committee, (12/2016)

Teaching

Early Universe & Galaxy Formation (semester B 2025, 2026):

Masters course: Lecturer

UH, Hatfield, United Kingdom

Data Science Programming (semester A 2026):

Bachelors course: Module Leader

UH, Hatfield, United Kingdom

Next Generation Data Science (semester B 2025):

Masters course: Module Leader

UH, Hatfield, United Kingdom

Research Methods for Data Science (semester B 2024, semester C 2024):

Masters course: Module Leader

UH, Hatfield, United Kingdom

Machine Learning & Neural Networks (semester A 2023, semester B 2024):

Masters course: Teaching assistant

UH, Hatfield, United Kingdom

Data Handling & Visualisation (semester A 2023):

Masters course: Teaching assistant

UH, Hatfield, United Kingdom

Computational Astrophysics (semester B 2018, 2019):

Masters course: Module Leader

UCT, Cape Town, South Africa

Supervision (astronomy)

Main supervisor:

Bachelors students: 2

Masters students: 1

PhD students: 2

Co-supervisor:

Bachelors students: 2

Masters students: 1

PhD students: 4

Refereeing & Review panels

Referee invitation rate: 2.1 per year (since 2013) from A&A, ApJ, MNRAS, Nature Comms, and Universe

Proposal/fellowship review rate: 2.2 per year (since 2021)

Conference & Seminar Organisation

BRIDGCE workshop 2026, co-organiser, UH, (10/2026)

L-Galaxies workshop 2025, co-organiser, Berlin, (10/2025)

CAR seminar series, co-organiser, UH, (09/2023 - 08/2024)

L-Galaxies workshop 2024, co-organiser, DIPC, (01/2024)

IReNA seminar series, co-organiser, IReNA network, (01/2023 – 08/2024)

L-Galaxies workshop 2022, main organiser, UH, (11/2022)

NAM 2021, Special Session, co-chair, Bath, (07/2021)

Galaxy Group journal club, co-organiser, MPA, (07/2018 – 07/2019)

Cosmology seminar series, co-organiser, MPA, (07/2017 – 07/2020)

EWASS 2017, Special Session, chair, Prague, (06/2017)

Gas Matters seminar series, co-organiser, ESO, (07/2016 – 07/2018)

L-Galaxies workshop 2016, co-organiser, MPA, (01/2016)

High Energy Group journal club, co-organiser, MPE, (07/2015 – 07/2017)

Five most recent invited talks

Bayfordbury Observatory, UK, 28th November 2025:

“The life & times of an oxygen atom” (invited outreach talk)

Uni Leiden, Netherlands, 18th June 2025:

“The impact of binary stars on the dust & metal evolution of galaxies”

Uni Sussex, UK, 21st October 2024:

“The impact of binary stars on the dust & metal evolution of galaxies”

UFRGS Porto Alegre, Brazil, 17th July 2024:

“Binary stars, dust, & metal evolution in the L-Galaxies cosmological simulation”

PUC, Chile, 12th June 2024:

“Galaxy Chemical Evolution (GCE)” (invited lecture)