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

STFC Small Award (2026)
  PI: "Galaxy chemical evolution & habitability using a multi-scale simulation suite" (£417,366.78)

Global Engagement Fund Grant (2025)
  Funding to host visiting collaborator for three weeks (£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)