

Felix D. Priestley

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RESEARCH INTERESTS

- Gas dynamics and chemistry in star-forming regions
- The formation and evolution of cosmic dust

EMPLOYMENT

Cardiff University, UK **Jul 2019 -**
Post-doctoral research associate

University College London, UK **Oct 2018 - Jun 2019**
Post-doctoral research associate

EDUCATION

University College London, UK **Oct 2015 - Sep 2018**
PhD Astrophysics
Thesis Title: Molecule and dust emission at the beginnings and ends of stellar evolution
Supervisor: Prof. Michael Barlow
Awarded Dec 2018

University College London, UK **Sep 2011 - Jun 2015**
MSci Astrophysics, 1st Class
Dissertation Title: The effects of gravitational collapse on the chemical evolution of prestellar cores
Supervisor: Prof. Serena Viti

PUBLICATION SUMMARY

Refereed articles: 23 first-author (42 total)
Total citations: 473 (h-index 12)

TECHNICAL SKILLS

Programming: Fortran 77/90/Modern (experienced), Python, Linux shell, C/C++
Software: MHD (PHANTOM, AREPO), chemistry (UCLCHEM), radiative transfer (LIME, RADMC3D), dust emission (DINAMO)

TALKS (* - INVITED)

Centre for Astrochemical Studies, MPE **Jan 2024**
Modelling chemical evolution in molecular clouds self-consistently

***ECOGAL collaboration seminar** **Nov 2023**
Chemical evolution in molecular clouds

Leiden Observatory **Nov 2023**
Modelling chemical evolution in molecular clouds self-consistently

Origin and Fate of Dust in Our Universe **Sep 2023**
Empirical constraints on dust destruction in supernova remnants

AREPO ISM development workshop <i>Post-processing chemical evolution in hydrodynamical simulations</i>	Sep 2023
National Astronomy Meeting 2023 <i>Unveiling the origins of prestellar cores with molecular line emission</i>	Jul 2023
The Physics of Star Formation <i>Can prestellar cores be modelled as isolated objects?</i>	Jun 2023
*Universidad Complutense Madrid <i>Testing theories of star formation with molecular line data</i>	Mar 2023
University College London <i>Probing the importance of magnetic fields in star-forming regions using molecular line emission</i>	Mar 2022
*St. Andrews University <i>What can molecular lines tell us about star formation?</i>	Jan 2022
National Astronomy Meeting 2021 <i>The properties of shocked dust in supernova remnants</i>	Jul 2021
Magnetic fields and the structure of the filamentary ISM <i>The characteristic widths of magnetised filaments</i>	Jun 2021
ISM Scales 2021 <i>Filament widths in molecular clouds: are they universal, and if so, why?</i>	May 2021
*Supernovae and Interstellar Dust <i>Observational constraints on dust destruction in shocks</i>	Apr 2021
The Rise of Metals and Dust in Galaxies through Cosmic Time <i>Cold dust emission from the shocked material around supernova remnants</i>	Oct 2020
European Week of Astronomy and Space Science 2019 <i>The survival of dust grains in the ejecta of core-collapse supernovae</i>	Jun 2019
*Cardiff University <i>Molecular tracers of star formation mechanisms</i>	Apr 2019
The Supernova-Supernova Remnant Connection <i>The pre- and post-shock dust mass in Cassiopeia A</i>	Jan 2019

AWARDS	Jon Darius Memorial Prize (University College London) <i>Outstanding postgraduate research in Astrophysics</i>	2019
SUPERVISION	Charles Yin, MSc student Supervised research project (published in MNRAS; Yin et al. 2021)	2019 - 2020
TEACHING	Deputy module organiser, Cardiff University Administrative and teaching duties for undergraduate maths course	2023 -
	Demonstrator, Cardiff University Senior lab demonstrator for undergraduate observational astronomy course	2021 -
	Demonstrator, University of London Observatory Assisted with undergraduate practical astronomy courses	2013 - 2017
COMMUNITY	Referee for ApJ, ApJL, MNRAS, A&A, Nature Astronomy, Nature Communications	2020 -
	External reviewer for STFC Astronomy Grants Panel	2023 -
	Seminar organiser, Cardiff Astronomy group	2019 - 2022
	SOC Cosmic Star Formation session, NAM 2021	2021
	BISTRO collaboration member	2020 -
OUTREACH	Howell's School, Cardiff Public talk: Where do stars come from?	Mar 2023
	Barry Astronomical Society Public talk: Cores, clouds and filaments: where do stars form, and why?	Feb 2022
	Royal Society Summer Science Exhibition JWST exhibit demonstrator	Jul 2018
	Cafe Scientifique Public talk: Cosmic Dust from Exploding Stars	May 2017

REFEREE
CONTACT
INFORMATION

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