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: 21 first-author (37 total)
Total citations: 390 (h-index 12)

TECHNICAL SKILLS

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

TALKS (* - INVITED)

National Astronomy Meeting 2023 **Jul 2023**
Unveiling the origins of prestellar cores with molecular line emission

The Physics of Star Formation **Jun 2023**
Can prestellar cores be modelled as isolated objects?

***Universidad Complutense Madrid** **Mar 2023**
Testing theories of star formation with molecular line data

University College London **Mar 2022**
Probing the importance of magnetic fields in star-forming regions using molecular line emission

***St. Andrews University** **Jan 2022**
What can molecular lines tell us about star formation?

National Astronomy Meeting 2021 **Jul 2021**
The properties of shocked dust in supernova remnants

Magnetic fields and the structure of the filamentary ISM **Jun 2021**
The characteristic widths of magnetised filaments

ISM Scales 2021 **May 2021**
Filament widths in molecular clouds: are they universal, and if so, why?

***Supernovae and Interstellar Dust** **Apr 2021**
Observational constraints on dust destruction in shocks

The Rise of Metals and Dust in Galaxies through Cosmic Time **Oct 2020**
Cold dust emission from the shocked material around supernova remnants

European Week of Astronomy and Space Science 2019 **Jun 2019**
The survival of dust grains in the ejecta of core-collapse supernovae

***Cardiff University** **Apr 2019**
Molecular tracers of star formation mechanisms

The Supernova-Supernova Remnant Connection **Jan 2019**
The pre- and post-shock dust mass in Cassiopeia A

Awards

Jon Darius Memorial Prize (University College London) **2019**
Outstanding postgraduate research in Astrophysics

Supervision

Charles Yin, MSc student **2019 - 2020**
Supervised research project (published in MNRAS; Yin et al. 2021)

Teaching

Deputy module organiser, Cardiff University **2023 -**
Administrative and teaching duties for undergraduate maths course

Demonstrator, Cardiff University **2021 -**
Senior lab demonstrator for undergraduate observational astronomy course

Demonstrator, University of London Observatory **2013 - 2017**
Assisted with undergraduate practical astronomy courses

Community	**Referee for ApJ, ApJL, MNRAS, A&A, Nature Astronomy**	**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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