School of Physics and Astronomy, Cardiff University Queen's Buildings, The Parade, Cardiff CF24 3AA, UK +44 (0)789 4413 787 priestleyf@cardiff.ac.uk

RESEARCH INTERESTS

- Hydrodynamical and astrochemical modelling of star formation
- Dust emission from supernovae and supernova remnants

EMPLOYMENT Cardiff University, UK

Jul 2019 -

Post-doctoral research associate

University College London, UK

Oct 2018 - Jun 2019

Post-doctoral research assistant

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. Mike 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 prestel-

lar cores

Supervisor: Prof. Serena Viti

Publication

Refereed articles: 16 (12 first author)

Summary Total citations: 103, h-index 6

TECHNICAL SKILLS **Programming:** Fortran 77/90/Modern (experienced), Python, Linux shell

Languages: English (native speaker), Spanish (intermediate)

Talks & Posters

The Rise of Metals and Dust in Galaxies through Cosmic Time

Cold dust emission from the shocked material around supernova remnants

Supernovae and dust tele-talk series

Feb/Mar 2020

Oct 2020

Dust survival in supernova remnants: an observational perspective

EWASS 2019 Jun 2019

The survival of dust grains in the ejecta of core-collapse supernovae

Supernova Remnants: An Odyssey in Space after Stellar Death II Jun 2019

The survivability of newly-formed dust grains in supernova remnants

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

Cosmic dust: origin, applications & implications Jun 2018

The heating sources for the dust emission from Cassiopeia A

The Hydride Toolbox Dec 2016

An investigation of the origin of the argonium emission from the Crab Nebula

Supernova Remnants: An Odyssey in Space after Stellar Death Jun 2016

The origin of the argonium emission discovered in the Crab Nebula

AWARDS Jon Darius Memorial Prize 2019

Outstanding postgraduate research in Astrophysics

MSc research project supervisor Jan 2020 -TEACHING

Charles Yin (submitted as paper to MNRAS)

Demonstrator, University of London Observatory Sep 2013 - Jun 2017

Assisted with undergraduate practical astronomy courses

Observing Isaac Newton Telescope, La Palma Aug 2017

5 nights observing for UVEX/IPHAS survey EXPERIENCE

Community Referee for ApJ

> Seminar organiser, Cardiff Astronomy group Jul 2019 -

OUTREACH Royal Society Summer Science Exhibition Jul 2018

JWST exhibit demonstrator

Cafe Scientifique May 2017

Public talk: Cosmic Dust from Exploding Stars

Referee Prof. Anthony Whitworth

School of Physics and Astronomy, Cardiff University Contact Information

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anthony.whitworth@astro.cf.ac.uk

Prof. Mike Barlow

Department of Physics and Astronomy, University College London Gower Street, London, WC1E 6BT, UK mjb@star.ucl.ac.uk

Dr. Ilse De Looze

Sterrenkundig Observatorium, Ghent University Krijgslaan 281 - S9, 9000 Gent, Belgium ilse.delooze@ugent.be

Prof. Serena Viti

Leiden Observatory, Leiden University P.O. Box 9513, 2300 RA Leiden, The Netherlands viti@strw.leidenuniv.nl