Department of Physics and Astronomy University College London Gower Street, London, WC1E 6BT, UK fdp@star.ucl.ac.uk +44 (0)780 4149 484 www.fpriestley.github.io

EMPLOYMENT University College London, UK

Oct 2018 -

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 Expected award: Dec 2018

University College London, UK

Sep 2011 - Jun 2015

MSci Astrohysics, 1st Class

Masters Thesis Title: The effects of gravitational collapse on the chemical evolution of

prestellar cores

Supervisor: Prof. Serena Viti

TECHNICAL SKILLS **Programming:** Experienced in Fortran (77/90/Modern) and Python, intermediate in

Linux shell

Codes: UCL_PDR, MOCASSIN, UCLCHEM

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

Publications

OH⁺ emission from cometary knots in planetary nebulae

Priestley, F. D.; Barlow, M. J.

2018, MNRAS, 478, 1502

An Efficient Method for Determining the Chemical Evolution of Gravitationally Collaps-

ing Prestellar Cores

Priestley, F. D.; Viti, S.; Williams, D. A.

2018, AJ, 156, 51

Modelling the ArH⁺ emission from the Crab nebula

Priestley, F. D.; Barlow, M. J.; Viti, S.

2017, MNRAS, 472, 4444

UCLCHEM: A Gas-grain Chemical Code for Clouds, Cores, and C-Shocks Holdship, J.; Viti, S.; Jiménez-Serra, I.; Makrymallis, A.; **Priestley, F.**

2017, AJ, 154, 38

Posters Cosmic Dust Jun 2018

The heating sources for the dust emission from Cassiopeia A

1

The AGB-Supernovae Mass Transition

Mar 2017

A photoionization/PDR model for the ArH⁺ and OH⁺ emission from the Crab Nebula

The Hydrides Toolbox

Dec 2016

Jun 2016

An investigation of the argonium emission from the Crab Nebula

Supernova Remnants: An Odyssey in Space after Stellar Death

The origin of the argonium emission discovered in the Crab Nebula

Teaching Demonstrator, University of London Obseravtory Sep 2013 - Jun 2017

Assisted with undergraduate practical astronomy courses

Royal Society Summer Science Exhibition Jul 2018 OUTREACH

JWST exhibit demonstrator

Cafe Scientifique May 2017

Public talk: Cosmic Dust from Exploding Stars

Observing Isaac Newton Telescope, La Palma Aug 2017

5 nights observing for UVEX/IPHAS survey EXPERIENCE

Referee Prof. Mike Barlow

Contact Department of Physics and Astronomy, University College London Information

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Prof. Serena Viti

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Prof. David Williams

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