Oliver Newton

Curriculum Vitæ

Education

2015- **PhD**, Institute for Computational Cosmology, Durham, UK.

Supervisors: Prof. Adrian Jenkins and Prof. Carlos Frenk

2010–2014 BSc MPhys, University of Warwick, Coventry, UK, 1st Class (Honours).

Masters project: Determining the fundamental properties of Higgs candidates at the LHC

Employment & voluntary work

Vocational

2014–2015 Graduate Trading Platform Engineer, Fidessa, Woking.

Charity Board of Trustees

2014- Founding trustee & Treasurer, UniBrass Foundation (reg. no. 1, 159, 359).

Manage an annual budget of $\sim \pm 30\,\mathrm{k}$ in support of the annual University Brass Band Championships of Great Britain and Northern Ireland. Ensure charity is compliant with all legal obligations.

Conference contributions

Contributed talks

Dec 2018 VIRGO Consortium meeting, Leiden University, Netherlands.

Constraints on the mass of the thermal relic warm dark matter particle

Aug 2018 XXX IAU General Assembly, Vienna, Austria.

Constraining the mass of the WDM particle using estimates of the total satellite population of the Milky Way

Jan 2018 **DEX XIV**, Durham, UK.

The total satellite population of the Milky Way

Dec 2017 VIRGO Consortium meeting, MPA Garching, Munich, Germany.

The total satellite population of the Milky Way

July 2017 National Astronomy Meeting, Hull, UK.

The total satellite population of the Milky Way

Dec 2016 VIRGO Consortium meeting, Durham, UK.

MW satellite galaxies: how many could there be?

Posters

Aug 2018 XXX IAU General Assembly, Vienna, Austria.

Constraining the mass of the WDM particle using estimates of the total satellite population of the Milky Way

Teaching/supervising experience

2018– Co-supervising a 4th year student's master's thesis

2017–2018 Co-supervisor of a 4th year student's master's thesis titled 'Studying the dark matter distribution of the Local Group using dwarf galaxies.'

Committees

2018- Small Galaxies, Cosmic Questions LOC, Member, Durham, UK.

Member of the Local Organising Committee for the "Small Galaxies, Cosmic Questions" conference to be held in August 2019

2016–2017 Postgraduate Journal Club, Co-convener, Durham, UK.

Coordinated a weekly meeting of postgraduate students to discuss recent papers and share knowledge.

Professional memberships

May 2017 - Fellow of the Royal Astronomical Society

Outreach

Events

Oct 2018 Celebrate Science, Durham, UK.

Galaxy Makers

Apr 2018 Schools Science Festival, Durham, UK.

Galaxy Makers

Oct 2017 Celebrate Science, Durham, UK.

Galaxy Makers

Apr 2017 Schools Science Festival, Durham, UK.

Galaxy Makers

Jul 2016 Royal Society Summer Science Exhibition, London, UK.

Galaxy Makers

Activity development

2015-2016 Galaxy Makers, Durham, UK.

Developed design ideas and ran the constituent EAGLE volumes that were visualised in the final exhibit.

Computer skills

Python, LATEX, TCL, SQL, Microsoft Office suite

Publications

2018 Oliver Newton, Marius Cautun, Adrian Jenkins, et al. The total satellite population of the Milky Way. *MNRAS*, 479(3):2853–2870, September 2018.

Oliver Newton, Marius Cautun, Adrian Jenkins, et al. The Milky Way's total satellite population and constraining the mass of the warm dark matter particle. *arXiv e-prints*, arXiv:1809.09625, September 2018.

Oliver Newton and Marius Cautun. MW Satellite LF: V1.0.0 release. Zenodo, March 2018.