

# Oliver Newton

## Curriculum Vitæ

### 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).

### Education

2015–2019 **PhD**, *Institute for Computational Cosmology*, Durham, UK.

*Probing the nature of dark matter with small-scale cosmology*

Supervisors: Prof. Adrian Jenkins and Prof. Carlos Frenk

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

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

### Awards and scholarships

2019 **ICC Research Scholarship**, Institute for Computational Cosmology, Durham, UK.

2015–2019 **STFC Postgraduate Studentship**, Institute for Computational Cosmology, Durham, UK.

### Conference contributions

#### Contributed talks

Sep 2019 **CLUES Meeting**, IN2P3, Lyon, France.

Constraints on thermal relic WDM from satellites of the LG

July 2019 **Small Galaxies, Cosmic Questions**, Durham, UK.

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

Jan 2019 **DEX XV**, Edinburgh, UK.

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

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

- June 2019 **EWASS**, Lyon, France.  
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

## Teaching/supervising experience

- 2018–2019 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

- 2018–2019 **Small Galaxies, Cosmic Questions LOC**, *Member*, Durham, UK.
- 2016–2017 **Postgraduate Journal Club**, *Co-convenor*, Durham, UK.

## 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,  $\text{\LaTeX}$ , 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.