

# Oliver Newton

## Curriculum Vitæ

### Employment & voluntary work

#### Vocational

- 2019– **Postdoctoral Researcher**, *Institut de Physique des Deux Infinis*, Lyon, France.  
2014–2015 **Graduate Trading Platform Engineer**, *Fidessa*, Woking, UK.  
[Charity Board of Trustees](#)  
2014–2020 **Founding trustee & Treasurer**, *UniBrass Foundation* (charity number: 1159359), UK.

### 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

- July 2020 **EAS (Online)**, Leiden, Netherlands.  
Constraining the properties of WDM using the satellite galaxies of the Milky Way  
Jan 2020 **VIRGO Consortium meeting**, Durham, UK.  
Constraining the properties of WDM using the satellite galaxies of the Milky Way  
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-convener*, 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

2020 Wolfgang Enzi, Riccardo Murgia, **Oliver Newton**, et al. Joint constraints on thermal relic dark matter from a selection of astrophysical probes. *ArXiv e-prints*, October 2020.

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. *Proc. IAU*, 14(S344):109–113, August 2018.

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