

Oliver Newton

Curriculum Vitæ

Employment & voluntary work

Vocational

- 2019– **Postdoctoral Research Associate**, *Institut de Physique des 2 Infinis de Lyon*, Lyon, France.
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-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, \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.