

# Adam Carnall

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- 2021 - 2024**    **Leverhulme Early Career Fellow – Royal Observatory Edinburgh**
- 2019 - 2021**    **Postdoctoral Research Assistant – Royal Observatory Edinburgh**
- 2015 - 2019**    **PhD Astrophysics – Edinburgh University**  
Thesis: The star-formation histories of massive quiescent galaxies  
Supervisors: Prof. Ross McLure and Prof. James Dunlop
- 2011 - 2015**    **MPhys Physics and Astronomy – Durham University**  
Thesis: A new search for high-redshift quasars – Supervisor: Prof. Tom Shanks  
First class honours: final mark 82% (top 1%)
- 2009 - 2011**    **A-Levels – Thirsk School and Sixth Form College**  
A\*A\*A\*A\* – Physics, Chemistry, Maths and Further Maths

## RESEARCH INTERESTS

Galaxy formation and evolution; quiescent galaxies; quenching mechanisms; star-formation histories; spectral energy distribution fitting; spectroscopic surveys; dust attenuation; UVJ diagnostics; software development and distribution; Bayesian statistical methods and their implementation; high performance computing in astronomy.

## PUBLICATION STATISTICS (ADS 11/06/2021)

- First-authored peer reviewed publications: 5, with 222 total citations
- Total publications: 26, of which 24 peer reviewed (23 accepted, 1 submitted), 2 non peer reviewed
- Total citations: 619, of which 253 as first author
- *h*-index: 13

## PUBLICLY RELEASED SOFTWARE

- BAGPIPES**    Python software for galaxy spectral fitting (used in  $\sim 40$  publications to date)  
<https://github.com/ACCarnall/bagpipes>
- SPECTRES**    Python software for resampling spectral data (used in  $\sim 30$  publications to date)  
<https://github.com/ACCarnall/spectres>

## ACCEPTED TELESCOPE PROPOSALS

- 2021**    **A massive quiescent galaxy at redshift 4.657**  
PI, 8 hours, JWST GO Cycle 1 Small Program, 2285
- 2021**    **Primer: public release imaging for extragalactic research**  
Co-I (PI: J. Dunlop), 187 hours, JWST GO Cycle 1 Large Treasury Program, 1837
- 2021**    **Physical properties of the triply-lensed  $z = 11$  galaxy**  
Co-I (PI: D. Coe), 11 hours, JWST GO Cycle 1 Small Program, 1433
- 2019**    **The stellar mass-metallicity relation for massive quiescent galaxies at  $1.0 < z < 1.5$**   
PI, 64 hours, ESO P104, VLT KMOS, 0104.B-0885
- 2015**    **Probing the epoch of reionisation with two bright quasars at  $z > 6$  from VST ATLAS**  
Co-I (PI: T. Shanks), 2 hours, ESO P94, VLT X-SHOOTER, 294.A-5031

## AWARDS AND PRIZES

- 2020**    Selected to attend the 70<sup>th</sup> Lindau Nobel Laureate Meeting
- 2019**    Winton Astronomy Thesis Prize
- 2018**    International Astronomical Union travel bursary: £1200
- 2018**    Scottish Universities Physics Alliance PECRE Bursary: £1500 travel funding
- 2015**    Durham University J. A. Chalmers Prize in Experimental Physics

<b>2012 - 2015</b>	Durham Physics Award for Outstanding Achievement: Years 1 - 4
<b>2015</b>	Durham University Summer Research Bursary: £1500 funding for 6 week project
<b>2014</b>	Institute of Physics Top 50 Award: £2000 funding for 8 week project at Southampton University
<b>2013</b>	Oxford University Summer Research Bursary: £1500 funding for 8 week summer project
<b>2013</b>	Leicester University SURE Bursary: £2000 funding for 6 week summer project

## SELECTED PRESENTATIONS

<b>Apr 2021</b>	Invited talk + coding session	Multi-object Spectroscopy for Statistical Measures of Galaxy Evolution, Space Telescope Science Institute, USA
<b>Mar 2021</b>	Invited talk	Galaxy evolution seminar, Nottingham University, UK
<b>Feb 2021</b>	Talk	European Southern Observatory Hypatia Colloquium
<b>Sep 2020</b>	Talk	Epoch of galaxy quenching conference, Cambridge University, UK
<b>Jun 2020</b>	Talk	European Astronomical Society meeting, Leiden, Netherlands
<b>Jun 2020</b>	Invited talk	Oxford galaxy evolution seminar, Oxford University, UK
<b>Feb 2020</b>	Talk	Quenching throughout cosmic time, Aspen Center for Physics, CO, USA
<b>Jan 2020</b>	Invited talk	The growth of galaxies in the early Universe VI, Sexten, Italy
<b>Nov 2019</b>	Talk	The art of measuring galaxy physical properties, INAF, Milan, Italy
<b>Jul 2019</b>	Talk	Galaxy evolution session, National Astronomy Meeting, Lancaster, UK
<b>Jul 2019</b>	Talk	MOONS session, National Astronomy Meeting, Lancaster, UK
<b>May 2019</b>	Invited talk	Lega-C team meeting, Ghent, Belgium
<b>Mar 2019</b>	Talk	Geneva Observatory, Switzerland
<b>Jan 2019</b>	Invited talk	The growth of galaxies in the early Universe V, Sexten, Italy
<b>Nov 2018</b>	Talk	International Astronomical Union Symposium 341: Challenges in panchromatic galaxy modelling with next generation facilities, Osaka University, Japan
<b>Oct 2018</b>	Talk	University of St Andrews, UK
<b>Apr 2018</b>	Invited talk	The art of measuring galaxy physical parameters, UC Riverside, CA, USA
<b>Jan 2018</b>	Invited talk	The growth of galaxies in the early Universe IV, Sexten, Italy
<b>Nov 2017</b>	Talk	Royal Society of Edinburgh Cormack Meeting, Edinburgh, UK
<b>Jun 2017</b>	Invited talk	Advances in galaxy evolution with surveys, Ringberg Castle, Germany

## TEACHING AND SUPERVISION EXPERIENCE

<b>2019 - 2023</b>	STFC PhD Studentship: Massissilia Hamadouche Project: The physics of high redshift star-forming galaxies with VANDELS and JWST
<b>2019 - 2021</b>	Edinburgh University BSc Project supervisor
<b>2018</b>	Edinburgh University Numerical Recipes Course: guest lecture on MCMC methods
<b>2018</b>	St. Andrews University Research Methods Course: guest lecture on star-formation histories
<b>2017 - 2019</b>	Edinburgh University Summer Project supervisor
<b>2015 - 2019</b>	Edinburgh University Teaching Assistant: supervised a variety of tutorials and labs

## OUTREACH AND PUBLIC ENGAGEMENT

<b>2018 - 2019</b>	Royal Observatory Edinburgh open days: organised activity stall explaining spectroscopic surveys using Sloan Digital Sky Survey plate, fairy lights and portable spectrograph
<b>2018</b>	Royal Observatory Edinburgh open days talk: how many stars are there in the Universe?
<b>2017</b>	Royal Observatory Edinburgh open days talk: astronomical archaeology: how do galaxies form?