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Luke Conaboy

Employment

- 2023–present Research Fellow, University of Nottingham, Nottingham, UK
Supervisor: Dr James Bolton
- 2022–2023 Research Associate, University of Nottingham, Nottingham, UK
Supervisor: Dr Emma Chapman

Education

- 2018–2022 PhD Astronomy, University of Sussex, Brighton, UK
Supervisor: Prof Ilian T. Iliev
Thesis: Simulations of structure formation and feedback at high redshift
- 2014–2018 MSci Physics with Astronomy, University of Nottingham, Nottingham, UK
Degree classification: First

Publications

First author publications

- 2023 *Relative baryon-dark matter velocities in cosmological zoom simulations*, **Luke Conaboy**, Ilian T. Iliev, Anastasia Fialkov, Keri L. Dixon, David Sullivan

Other publications

- 2022 *The short ionizing photon mean free path at $z=6$ in Cosmic Dawn III, a new fully-coupled radiation-hydrodynamical simulation of the Epoch of Reionization*, Joseph S. W. Lewis, Pierre Ocvirk, Jenny G. Sorce, Dominique Aubert, **Luke Conaboy**, Paul R. Shapiro, Taha Dawoodbhoy, Romain Teyssier, Gustavo Yepes, Stefan Gottlöber, Kyungjin Ahn, Ilian T. Iliev, Émilie Thélie

Conference proceedings

- 2022 *The Reionisation of the Local Universe in the Hestia Suite, John von Neumann Institute for Computing Symposium*, **Luke Conaboy**, Ilian T. Iliev, Noam I. Libeskind

Supervision

- 2022–present Assistant supervisor to a PhD student, University of Nottingham

Talks

Nov 2023 TIFR State of the Universe, TIFR, Mumbai (online)
 Nov 2023 Cambridge Galaxies Discussion Group, KICC, Cambridge
 Jun 2023 CLUES Meeting 2023, LMU CAS, Munich
 Jul 2022 *Hestia in the EoR*, CLUES Meeting 2022, Madrid
 Sep 2021 *Baryon drift effects at high-redshift*, RAMSES User Meeting 2021, online
 Dec 2020 *Baryon drift effects on small-scale structure*, PhD in a Pandemic 2020, online
 Nov 2020 *Local Group zoom simulations and baryon drift*, CLUES Mid-term Meeting, online
 Oct 2020 *Baryon drift effects on small-scale structure*, Third Global 21cm Meeting, online
 Jan 2020 *Cosmological reionisation*, RAS Specialist Meeting, London, UK

■ Awards

2022 Physics Finalist, STEM for Britain

■ Grants

2022 Co-PI (PI: Dr Noam I. Libeskind, PC: Prof Ilian T. Iliev) JUWELS (Jülich, Germany) computing time (13.3M core-h, applied) (**11M core-h, granted**)

■ Computing skills

A list of languages or packages that I use regularly, or have experience using

Languages Python (numpy, scipy, matplotlib, mpi4py, yt) (7 years/experienced), Fortran (3 years), Bash (3 years), MPI (3 years), Matlab (3 years), C/C++ (1 year)

Codes ramses, music, camb, gadget

Other Linux, High performance computing, L^AT_EX

■ Teaching

Spring 2020 Foundation Mathematics B, *University of Sussex*
 Assisting with workshops, marking.

Autumn 2019 Scientific Computing, *University of Sussex*
 Assisting with workshops, marking.

Autumn 2019 Financial Computing with MATLAB, *University of Sussex*
 Assisting with workshops, marking.

■ Conferences and workshops

Organising

2020 SAZERAC 2020, *LOC*, online
 Moderating discussion