

# Thomas Tomlinson

 [tjtomlinson](#) |  [thomas-tomlinson](#) |  [thomastomlinson.github.io](#) |  [thomas.j.tomlinson@durham.ac.uk](mailto:thomas.j.tomlinson@durham.ac.uk) |

## SUMMARY

---

I am a third-year PhD student at Durham University studying the stellar dynamics of barred galaxies in cosmological simulations. More broadly, I am interested in galactic archaeology and in using stellar dynamics to test alternative models of dark matter.

## EDUCATION

---

2023 - present PhD (Astronomy) at **Durham University**  
2019 - 2023 Master's Degree (Theoretical Physics) at **Durham University** (First)

## PUBLICATIONS

---

[ADS LIBRARY](#)

First Author

Tomlinson et al. (2026) "Stirring Things Up: Bar-induced substructures in the stellar halo of a cosmological Milky Way analogue", arXiv – submitted to MNRAS

## TALKS AND CONFERENCE CONTRIBUTIONS

---

Organiser or LOC member

- **Durham Advanced School on Astrophysical Simulations**  
Tutorial Writer & Assistant Sep 2025
- **National Astronomy Meeting (NAM) 2025** Session Organiser & Session Chair Jul 2025

Talks

- **Observatoire de Paris LIRA Seminar** Talk Mar 2026
- **Auriga Superstars Meeting 2025** Talk Jul 2025
- **Valencia Workshop on the Small-Scale Structure of the Universe and Self-Interacting Dark Matter** Talk Jun 2025
- **The Milky Way and Andromeda: The Odd Couple** Talk Feb 2025
- **2025 ExGal-Twin Annual Meeting** Talk Jan 2025
- **HERA 2024 The Nature and the Dynamics of Structures Observed in Galactic Disks** Talk Sep 2024
- **Auriga Superstars Meeting 2024** Talk Jul 2024
- **The Milky Way Assembly Tale - Plot and characters as of today, and what to expect in future editions** Talk May 2024
- **MPA Cosmology Seminar** Talk Apr 2024
- **Durham-Edinburgh eXtragalactic (DEX) Workshop XX** Short Talk Jan 2024

Posters

- **National Astronomy Meeting (NAM) 2025** Poster Jul 2025

- **Small Galaxies, Cosmic Questions – II** Poster

Jul 2024

Attendee

- **ESO Writing and Communicating Your Science** Attendee

Aug 2025

## RESEARCH SKILLS

---

|                          |   |
|--------------------------|---|
| Soft skills              | Public speaking, science communication, public engagement, data visualisation                                       |
| Computing skills         | Python, C, Agama, AREPO, L <sup>A</sup> T <sub>E</sub> X  |
| Hydrodynamic Simulations | Analysis of Auriga simulations, developing a suite of simulations based on the Auriga simulation incorporating SIDM |
| Observational data       | Analysis of data from the Gaia survey, as well as spectroscopic surveys such as APOGEE and LAMOST                   |
| Research area            | The stellar dynamics of barred galaxies, galactic archaeology, alternative dark matter models                       |

## TEACHING EXPERIENCE

---

|   |                     |
|---|---------------------|
| <b>Exams marker</b>                                   | Oct 2025 - present  |
| Durham University – Introduction to Astronomy         |                     |
| <b>Demonstrator</b>                                   | Oct 2024 - Apr 2025 |
| Durham University – Laboratory Skills and Electronics |                     |

## OUTREACH AND DEPARTMENT COMMUNITY

---

|  |  |                     |
|--|--|---------------------|
| <b>Public seminar talks</b>            | Sunday seminar organised by University College Durham                      | 2023 and 2026       |
| <b>CommuniTEA</b>                      | Departmental social event organiser  | Sep 2023 -          |
| <b>Arxiv Coffee</b>                    | Paper discussion forum   | Oct 2023 -          |
| <b>Planetarium</b>                     | Presenting 'The Northern Sky' planetarium shows to schools and communities | Oct 2024 -          |
| <b>Astronomy Journal Club Co-Chair</b> | Postgraduate journal club  | Oct 2024 - Oct 2025 |