

EDUCATION

Postdoctoral research associate - Durham University Manager: Prof. Dr. Alis Deason	2024–present
PhD - Kapteyn Institute, University of Groningen Assembly history of the Milky Way using Gaia and spectroscopic surveys Supervisor: Prof. Dr. Amina Helmi	2020–2024
MPhys - Lancaster University Can we observe young globular clusters forming at high redshift? Supervisor: Dr. David Sobral	2016–2020

OTHER RESEARCH EXPERIENCE

Internship - Lancaster University, Dr. David Sobral Lyman alpha haloes across cosmic time	Summer 2019
Internship - ESA ESTEC/Leiden University, Dr. Alice Zocchi The dynamical origin of the flattening of globular clusters	Summer 2018
Internship - Lancaster University, Dr. David Sobral Using Hubble and ALMA to unveil the nature of CR7	Summer 2017

PUBLICATIONS

- [1] P. Bonifacio, E. Caffau, P. François, N. Martin, R. Ibata, Z. Yuan, G. Kordopatis, J. I. González Hernández, D. S. Aguado, G. F. Thomas, A. Viswanathan, **E. Dodd**, F. Gran, E. Starkenburg, C. Lardo, R. Errani, M. Fouesneau, J. F. Navarro, K. A. Venn, and K. Malhan, “The Pristine survey: XXVI. Chemical abundances of subgiant stars of the extremely metal-poor stream C-19”, vol. 695, A113, A113, Mar. 2025. arXiv: 2412.20776 [[astro-ph.GA](#)].
- [2] **E. Dodd**, T. Matsuno, A. Helmi, E. Balbinot, T. M. Callingham, E. Starkenburg, H. C. Woudenberg, and T. Ruiz-Lara, “Chemical characterisation of small substructures in the local stellar halo”, *arXiv e-prints*, arXiv:2502.17353, arXiv:2502.17353, Feb. 2025. arXiv: 2502.17353 [[astro-ph.GA](#)].
- [3] **E. Dodd**, T. Ruiz-Lara, A. Helmi, C. Gallart, T. M. Callingham, S. Cassisi, E. Fernández-Alvar, and F. Surot, “Characterisation of local halo building blocks: Thamnos and Sequoia”, vol. 698, A277, A277, Jun. 2025. arXiv: 2408.13763 [[astro-ph.GA](#)].
- [4] Y. K. González-Koda, T. Ruiz-Lara, C. Gallart, E. Ceccarelli, **E. Dodd**, E. Fernández-Alvar, S. Cassisi, F. Surot, F. Aguado-Agelet, D. Massari, M. Monelli, T. M. Callingham, A. Helmi, G. Aznar-Menargues, D. Mirabal, A. Rivero, and A. B. Queiroz, “Chronology of our Galaxy from Gaia colour-magnitude diagram fitting (ChronoGal) – III. Age and metallicity distribution of Gaia-Sausage-Enceladus stars near the Sun”, *arXiv e-prints*, arXiv:2502.20439, arXiv:2502.20439, Feb. 2025. arXiv: 2502.20439 [[astro-ph.GA](#)].

- [5] D. Massari, M. Bellazzini, M. Libralato, A. Bellini, E. Dalessandro, E. Ceccarelli, F. Aguado-Agelet, S. Cassisi, C. Gallart, M. Monelli, A. Mucciarelli, E. Pancino, M. Salaris, S. Saracino, **E. Dodd**, F. R. Ferraro, E. R. Garro, B. Lanzoni, R. Pascale, and L. Rosignoli, “The Hubble Missing Globular Cluster Survey: I. Survey overview and the first precise age estimate for ESO452-11 and 2MASS-GC01”,, vol. 698, A197, A197, Jun. 2025. arXiv: 2502.01741 [[astro-ph.GA](#)].
- [6] T. Matsuno, A. Kemp, A. Tanikawa, C. E. Shariat, K. J. El-Badry, **E. Dodd**, A. Helmi, A. J. Koch-Hansen, N. Yamaguchi, and H. Yan, “Unevolved Li-rich stars at low metallicity: A possible formation pathway through novae”,, vol. 699, A171, A171, Jul. 2025. arXiv: 2502.18552 [[astro-ph.SR](#)].
- [7] E. Balbinot, **E. Dodd**, T. Matsuno, C. Lardo, A. Helmi, P. Panuzzo, T. Mazeh, B. Holl, E. Caffau, A. Jorissen, C. Babusiaux, P. Gavras, Ł. Wyrzykowski, L. Eyer, N. Leclerc, A. Bombrun, N. Mowlavi, G. M. Seabroke, I. Cabrera-Ziri, T. M. Callingham, T. Ruiz-Lara, and E. Starkenburg, “The 33 M_{\odot} black hole Gaia BH3 is part of the disrupted ED-2 star cluster”,, vol. 687, L3, p. L3, Jul. 2024. arXiv: 2404.11604 [[astro-ph.GA](#)].
- [8] **E. Dodd**, T. Ruiz-Lara, A. Helmi, C. Gallart, T. M. Callingham, S. Cassisi, E. Fernández-Alvar, and F. Surot, “Characterisation of local halo building blocks: Thamnos and Sequoia”, *arXiv e-prints*, arXiv:2408.13763, arXiv:2408.13763, Aug. 2024. arXiv: 2408.13763 [[astro-ph.GA](#)].
- [9] E. Balbinot, A. Helmi, T. Callingham, T. Matsuno, **E. Dodd**, and T. Ruiz-Lara, “Ed-2: A cold but not so narrow stellar stream crossing the solar neighbourhood”, *Astronomy & Astrophysics*, vol. 678, A115, 2023.
- [10] **E. Dodd**, T. M. Callingham, A. Helmi, T. Matsuno, T. Ruiz-Lara, E. Balbinot, and S. Lövdal, “Gaia dr3 view of dynamical substructure in the stellar halo near the sun”, *Astronomy & Astrophysics*, vol. 670, p. L2, 2023.
- [11] **E. Dodd**, A. Helmi, and H. H. Koppelman, “Substructures, resonances, and debris streams-a new constraint on the inner shape of the galactic dark halo”, *Astronomy & Astrophysics*, vol. 659, A61, 2022.
- [12] S. S. Lövdal, T. Ruiz-Lara, H. H. Koppelman, T. Matsuno, **E. Dodd**, and A. Helmi, “Substructure in the stellar halo near the sun-i. data-driven clustering in integrals-of-motion space”, *Astronomy & Astrophysics*, vol. 665, A57, 2022.
- [13] T. Matsuno, **E. Dodd**, H. H. Koppelman, A. Helmi, M. N. Ishigaki, W. Aoki, J. Zhao, Z. Yuan, and K. Hattori, “High-precision chemical abundances of galactic building blocks-ii. revisiting the chemical distinctness of the helmi streams”, *Astronomy & Astrophysics*, vol. 665, A46, 2022.
- [14] T. Ruiz-Lara, T. Matsuno, S. S. Lövdal, A. Helmi, **E. Dodd**, and H. H. Koppelman, “Substructure in the stellar halo near the sun-ii. characterisation of independent structures”, *Astronomy & Astrophysics*, vol. 665, A58, 2022.
- [15] **E. Dodd**, H. Baker, H. Child, T. Harrison, M. Hodge, A. Hackett-Evans, and D. Sobral, “On the nature of globular and open clusters (goc): A study of m16, m67, m3 & m71”, *Notices of Lancaster Astrophysics (NLUAstro)*, vol. 1, pp. 1–20, 2019.

TEACHING

Lab Demonstrator at Durham University
Physics bachelors year one

2025

Shared Supervision of MPhys student at Durham University

2024-2025

Shared Supervision of Honours student at Kapteyn Institute, University of Groningen

Autumn 2023

Teaching Assistant at Kapteyn Institute, University of Groningen
Physics of Galaxies

Spring 2022, 2023, 2024

Including assistance in the design of a computational project using galaxy data

Teaching Assistant at Kapteyn Institute, University of Groningen
Numerical Methods

Spring 2021

AWARDS AND FUNDING

- Durham PDDTA (Physics Department Developing Talent Award) Grant 2025
- MW-GAIA COST Action Grant 2023
- Research Academy Prize for Masters Thesis 2020
- DEX XVI Best Talk 2020
- Ogden Trust Intern of the Year 2017
- Ogden Trust Undergraduate Science Scholarship 2016-2020
- Ogden Trust Year 12 Physicist of the Year 2015

TALKS

Invited

- Invited talk on the assembly of the Milky Way with Gaia GaiaNIR session, National Astronomy Meeting 2025
- Towards Real-Time Galactic Dynamics, Lorentz Centre, Leiden July 2022
- Invited seminar at Istanbul University March 2022

Contributed

- Auriga superstars meeting contributed talk July 2025
- Stars II contributed talk June 2025
- Friday Lunch Talk at ICC Durham June 2025
- Colloquium at INAF Bologna May 2025
- Milky Way Assembly Tale May 2024
- Colloquium at INAF Bologna February 2024
- Group seminar at University of Chicago September 2023
- MODEST-23: Star Clusters in the Post Pandemic Era August 2023
- Group seminar at University of Granada March 2023
- Lunch talk at Kapteyn Institute March 2023
- IAUS 377: Early Disk-Galaxy Formation from JWST to the Milky Way February 2023
- Kapteyn science day 2022 December 2022
- Nova NW1 meeting 2022 September 2022
- Nova NW1 meeting 2021 October 2021
- Lunch talk at Kapteyn Institute September 2021
- Galaxy cookies, informal talk at Kapteyn Institute November 2020
- DEX XVI: 2020 vision: progress and tensions in astronomy January 2020
- LEAPS final presentations August 2018

Posters

- Bridging scales: star clusters and their host galaxies from the local to the high z Universe September 2025
- National Astronomy Meeting July 2025
- Milky Way Assembly Tale May 2024
- EAS 2022 June 2022
- EAS 2021 June 2021

SUCCESSFUL OBSERVING PROPOSALS

- **PI of ESO proposal** 0111.D-0263(A) Nature of accreted streams populating the local halo UVES/VLT (17.1 hrs)
- **Co-I on 4 other successful ESO proposals** from 2022 - 2025
- **Co-PI of INT proposal** TIHMPSS: The INT Halo Metal Poor Star Survey (40 nights 21B/22A, Calhau & Sobral)

OTHER ACADEMIC ACTIVITIES

- **Chair and organisation of weekly lunch talks at the department** 2022 –2024
- **Young Minds Groningen:** secretary, now vice president, organise scientific and outreach events 2021 –2023
- **Observing experience:** 2 nights experience observing with INT/WFC including full data reduction 2018
- **Outreach:** heavily involved with the XGAL outreach team during my undergraduate degree 2017 –2020

LANGUAGES AND SOFTWARE

- **Python** (including numpy, scipy, agama, vaex) : High level
- **Gadget Nbody:** Good level of experience

REFERENCES

Available upon request