Emma Dodd

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EDUCATION

PhD - Kapteyn Institute, University of Groningen

2020-Current

Assembly history of the Milky Way using Gaia and spectroscopic surveys Supervisor: Prof. Dr. Amina Helmi

MPhys, Lancaster University

2016-2020

Can we observe young globular clusters forming at high redshift?

Supervisor: Dr. David Sobral

PUBLICATIONS

- [1] 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", arXiv preprint arXiv:2306.02756, 2023.
- [2] **E., Dodd**, T. M. Callingham, A. Helmi, T. Matsuno, T. Ruiz-Lara, E. Balbinot, and S. Lövdal, "The Gaia DR3 view of dynamical substructure in the stellar halo near the Sun", *arXiv e-prints*, arXiv:2206.11248, arXiv:2206.11248, Jun. 2022. arXiv: 2206.11248 [astro-ph.GA].
- [3] 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",, vol. 659, A61, A61, Mar. 2022. arXiv: 2105.09957 [astro-ph.GA].
- [4] 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, A57, Sep. 2022. arXiv: 2201.02404 [astro-ph.GA].
- [5] 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", vol. 665, A46, A46, Sep. 2022. arXiv: 2203.11808 [astro-ph.GA].
- [6] 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, A58, Sep. 2022. arXiv: 2201.02405 [astro-ph.GA].
- [7] **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

• **Teaching Assistant** at Kapteyn Institute, University of Groningen Numerical Methods

Spring 2021

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

Spring 2022, 2023

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

Awards

• Ogden Trust Year 12 Physicist of the Year	2015
Ogden Trust Undergraduate Science Scholarship	2016-2020
• Ogden Trust Intern of the Year	2017
• Research Academy Prize for Masters Thesis	2020
• DEX XVI Best Talk	2020
• MW-GAIA COST Action Grant	2023

Talks

• Contributed talk at University of Granada	March 2023
• Contributed lunch talk at Kapteyn	March 2023
• IIAUS 377: Early Disk-Galaxy Formation from JWST to the Milky Way contributed talk	February 2023
• Kapteyn science day 2022 contributed talk	December 2022
• Nova NW1 meeting 2022 contributed talk	September 2022
- Towards Real-Time Galactic Dynamics, Lorentz Centre Leiden, ${\bf invited\ talk}$	July 2022
• EAS 2022, contributed two posters	June 2022
• Invited seminar at Istanbul University	March 2022
• Nova NW1 meeting 2021 contributed talk	October 2021
• Contributed lunch talk at Kapteyn	September 2021
• EAS 2021, contributed poster	June 2021
• Galaxy cookies, informal contributed talk at Kapteyn	November 2020
• DEX XVI contributed talk	January 2020
• LEAPS contributed talk	August 2018

OTHER ACADEMIC ACTIVITIES

• Chair and organisation of weekly lunch talks at the department

2022 -Current

- Young Minds Groningen: secretary, now vice president, organise scientific and outreach events 2021 Cuurent
- PI of ESO proposal (0111.D-0263(A)) "Nature of accreted streams populating the local halo" UVES/VLT
- Previous observing: Joint PI of small survey with INT, 2 nights experience observing with INT 2018 –2022

LANGUAGES AND SOFTWARE

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

References

Available upon request.