Emma Dodd

emma-l-dodd.github.io emmaldodd7@gmail.com @Emma_L_Dodd

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

2015
2016-2020
2017
2020
2020
2023

Talks

March 2023
March 2023
February 2023
December 2022
September 2022
July 2022
June 2022
March 2022
October 2021
September 2021
June 2021
November 2020
January 2020
August 2018

OTHER ACADEMIC ACTIVITIES

• Chair	and organi	sation of	weekly lunc	h talks	at the dep	partment			2022 –Current
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• 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

• Outreach: Heavily involved with the XGAL outreach team during my undergraduate degree 2017 –2020

LANGUAGES AND SOFTWARE

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

REFERENCES

Available upon request.