

The influence of massive early merger events on the chemo-dynamics of galaxy discs

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ABSTRACT

awesome science! keep on reading and cite me!

Key words:

Galaxy: structure — Galaxy: evolution — Galaxy: kinematics and dynamics — galaxies: formation — Galaxy: disk — methods: numerical

NUMPY AND IPYTHON (Walt et al. 2011; Pérez & Granger 2007). The article has been typeset using showyourwork! by Luger et al. (2021).

1 INTRODUCTION

2 METHODS

3 RESULTS

Not sure, we get a high res version done until this paper will be submitted... Let's try g8.26e11

3.1 some different elements [X/Fe] vs. [Fe/H]

do different elements give us insight into different formation epochs of the MW? detailed galactic archeology is left for future work.

3.2 relative contribution of different enrichment channels in L* galaxies: SNII vs. AGB vs. SNIa

4 CONCLUSION

Our results are summarized as follows:

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References

- Hunter J. D., 2007, *Computing In Science & Engineering*, 9, 90
- Jones E., Oliphant T., Peterson P., et al., 2001–, SciPy: Open source scientific tools for Python, <http://www.scipy.org/>
- Luger R., Bedell M., Foreman-Mackey D., Crossfield I. J. M., Zhao L. L., Hogg D. W., 2021, arXiv e-prints, [p. arXiv:2110.06271](https://arxiv.org/abs/2110.06271)
- Pérez F., Granger B. E., 2007, *Computing in Science and Engineering*, 9, 21
- Pontzen A., Roškar R., Stinson G. S., Woods R., Reed D. M., Coles J., Quinn T. R., 2013, pynbody: Astrophysics Simulation Analysis for Python
- Walt S. v. d., Colbert S. C., Varoquaux G., 2011, *Computing in Science and Engg.*, 13, 22

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