

Review of: "Untangling Magellanic Streams"

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Potential competing interests: No potential competing interests to declare.

The authors suggest tracking stars along a sub-dominant strand of the Magellanic Stream using both H3 and Gaia data. In my opinion, this paper is well-structured and well-written. Additionally, it offers novel and interesting findings that, with a minor revision, make it worth publishing in Qeios.

MINOR COMMENTS:

1. Introduction:

1. "To address these and other questions, investigators have generated an increasingly sophisticated set of numerical simulations of the interaction". You may consider also citing Jiménez-Arranz+24.
2. "More recently, tidal stellar features have been uncovered closer to the LMC-SMC system". You may consider citing Navarrete+19.
3. Add the main reference for Gaia DR3.
4. In the last paragraph of the Introduction, you forget to mention Sects. 4 and 5.

2. Data:

1. Add the main reference for Gaia DR3.
2. "In color-magnitude space, we use the Gaia photometry and select stars with $16.6 < G < 18.5$ and $C < BP - RP < 1.3$, where $C \equiv (39.4 - G)/19.0$." I would justify this cut in the color-magnitude diagram.
3. "We use these results to refine our selection of Gaia stars that correspond to the H3-selected sample." I would like to know the number of stars in your Gaia sample after you define the new cuts.

3. Results:

1. "In particular, using the distance estimates provided by Anders et al. (2019), ..." You may consider using the updated version of StarHorse (Gaia eDR3, Anders+22).

4. Discussion:

1. "Forthcoming surveys ..." You may also consider mentioning 4MOST.

5. Conclusions:

1. "we utilized the Gaia catalog to expand the number of known stars in this component and to map this population." I think you should mention the number of Gaia stars that are candidates to belong to the MS.
2. "drawn from the disk of the SMC". I am not entirely convinced that the SMC has a disk shape. Maybe you can rephrase the sentence to "drawn from the SMC"?

FIGURES

1. I would increase the labels' and ticks' font size in Fig. 6.

I hope this helps.