

Peer Review

Review of: "Untangling Magellanic Streams"

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This is a very solid piece of research, showcasing a stellar association with a sub-dominant branch of the Magellanic stream, evidence for its tidal origin, and likely different formation history than the dominant branch of the stream.

I recommend the publication of the presented work following only a few minor remarks:

Abstract: The H3 survey is very abruptly introduced without context: "Combining an H3-selected sample...". I recommend re-phrasing the sentence so it becomes clearer what H3 means here.

Intro, 1st sentence: history of Universe → history of the Universe.

Sect. 2.1: What is $15 < r < 18$? The unit is missing. What is the concentration of the chosen NFW MW potential? Does the referred NFW total mass correspond to M_{200} ? This information is necessary for easier reproducibility of the results.

Sect. 2.2 (1st paragraph): There are some typos in the units of parallax and proper motions. I also recommend using the unit of mas for the parallax. The parallax is an angle, not an angular velocity. This needs to be corrected throughout the entire text.

Sect. 2.2: What is the total number of Gaia stars that pass all criteria after applying the stricter PM selection? My understanding is that the quoted 3,982 number corresponds to the more relaxed PM criteria.

Sect. 3: It would be interesting to add a second panel to figure 6, analogous to fig. 4, showcasing the PM of the mock Gaia catalog.

Fig. 7: a different color is used for the SMC chemical track and mean metallicity, which is confusing.

Declarations

Potential competing interests: No potential competing interests to declare.