

The Magellanic Stream

From website of David Nidever

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According to galaxy formation models, the Milky Way formed by the successive merging of smaller galaxies which produced remnant streams. A prime example of this is the Magellanic Stream, a long gaseous stream trailing the Magellanic Clouds (MCs) that will eventually be accreted by the MW and likely help fuel the next generation of stars.

Using the Leiden-Argentine-Bonn HI all-sky survey, I was able to track one of the filaments of the MS back to its origin in the southeastern region of the Large Magellanic Cloud and showed that star formation feedback (blowout) plays an important role in the formation of the MS.

Additionally, I performed a 100-hour survey on the [110-m Green Bank Telescope \(GBT\)](#) and showed that the MS is 40 deg longer than previously thought. I am currently conducting [a larger GBT survey to map the MS to even larger distances with the goal of constraining the mass of the Milky Way.](#)

1. • [Nidever, Majewski & Burton 2010, ApJ, 723, 1618](#)
2. • [Nidever, Majewski & Burton 2008, ApJ, 679, 432](#)