

The Scars of Galaxy Formation: Studying stellar streams in our halo with HRMOS

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The halo of our Milky Way is scarred by galaxy formation in the form of stellar streams. These streams are a uniquely powerful tool for understanding the building blocks of the Milky Way's stellar halo, the mass and shape of the Milky Way's halo, and ultimately the nature of dark matter. Each stream is the remnant of a dwarf galaxy or globular cluster; the former are especially interesting as each stream reveals stars identifiably from a single dwarf galaxy within our own halo. In this talk I will present results from the ongoing Southern Stellar Stream Spectroscopic Survey (S5), which has been using the Anglo-Australian Telescope, Magellan/HIRES, and VLT/UVES to characterise and study stellar streams identified in the Dark Energy Survey and Gaia. I will discuss the requirements for HRMOS for studying streams and the advantages HRMOS could have over other future survey instruments.

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