

Title

Gas Flows and Interaction in SUNBIRD Galaxies

Abstract

Starburst galaxies and LIRGs provide a unique window into the baryon cycle and how it affects the evolution of galaxies. Their intense star formation provides extreme environments, where the effects of feedback from galactic winds are strong. These winds are complex and multi-phase and can contain large amounts of neutral gas. In the optical NaD is used to trace the neutral gas, however it is not as reliable a tracer as HI. We propose the deepest HI (reaching $2.5 \times 10^{19} \text{ cm}^{-2}$ at 15" resolution) observations of a sample of 9 starbursts and LIRGs which show signatures of gas outflows via their NaD and H-alpha kinematics. We will search for and study the properties of any HI outflows, inflows and extraplanar gas and search for signatures of galaxy interactions. This data will be used with other multi-wavelength data to better understand the flow of gas in these galaxies and how it affects their evolution.