

Title

Constraining Curious Atomic Gas Dynamics in the Distinct Starburst Regions of Henize 2-10

Abstract

Henize 2-10 (He 2-10) is a starbursting blue compact dwarf galaxy known for its extreme star formation environments. It hosts both optically exposed and deeply embedded super star clusters (SSCs) near its central black hole and an additional starburst region at the galaxy's edge, about 350 parsecs from the center. These regions provide a rich field for studying the dynamics of molecular and atomic gas interactions that may fuel starburst activity. Archival VLA observations hint at kinematically distinct H I components with respect to the two starburst regions in He 2-10, but the existing data lack the resolution to disentangle the dynamics. We propose deep 21-cm observations with a factor > 4 increase in resolution over existing VLA data to disentangle the dynamics of the H I gas in He 2-10.