

# An Extremely Long Star-Forming Tail Outside of the Cluster Environment

## Abstract

We request 3 hours of observations to obtain HI imaging of a  $\sim 400$ -kpc long star-forming galactic tail. Unlike most ram pressure stripped tails, this one exists in a low-density environment, suggesting that the hot gas halo of a single neighboring galaxy (Mrk926) may have been sufficient to produce a tail of the type often associated with intra-group and intra-cluster environments. If so, this phenomenon may be far more common than anticipated, but difficult to observe in action. We found the tail of LEDA1000273 in our ongoing search for low surface brightness features in optical data, the only such source we found in  $\sim 15000$  square degrees of sky. We aim to measure the HI gas mass and kinematics of the tail to constrain models for the formation of this system and how it may subsequently evolve. Interestingly, the galaxy from which the long tail emanates is optically red, suggesting this event was sufficient to quench any recent star formation in what must have previously been a gas-rich galaxy. The MeerKAT observations requested here will map the entire system with sufficient angular resolution to resolve the HI distributions of the entire tail as well as in the two massive galaxies.