## ASTR400B Research Assignment 1

## Laura Johanna Mack February 2025

Research Topic:  $\rm MW/M31$  Galaxy Major Merger Remnant: Stellar remnant and formation of elliptical galaxies

Specific Question: Stellar Density Profile of the Merged Bulges and Disks - How well is the remnant described as a classical elliptical galaxy based on its surface density profile? What is the best fit sersic profile?