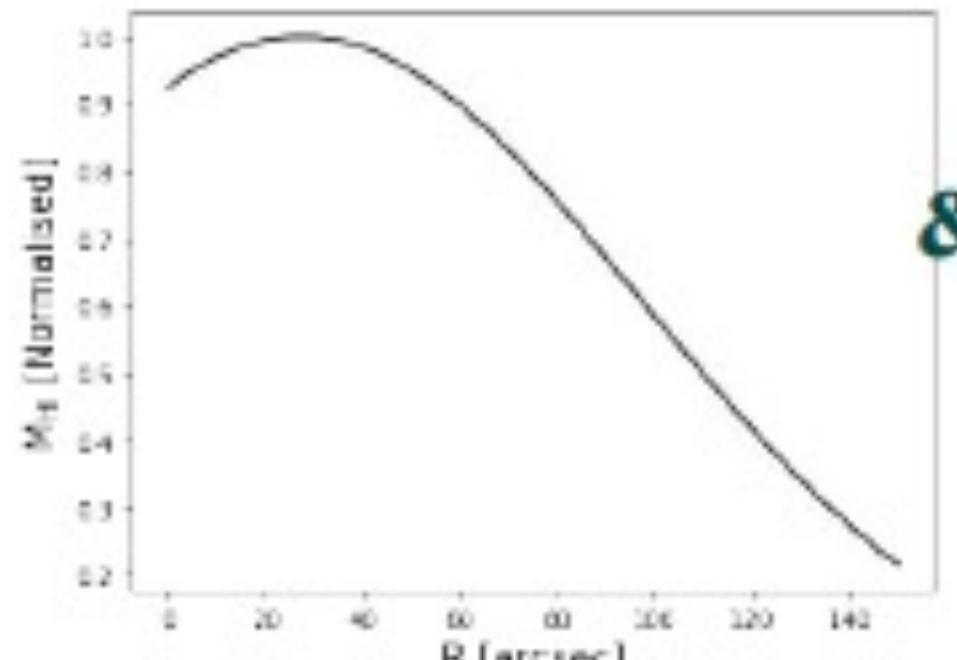


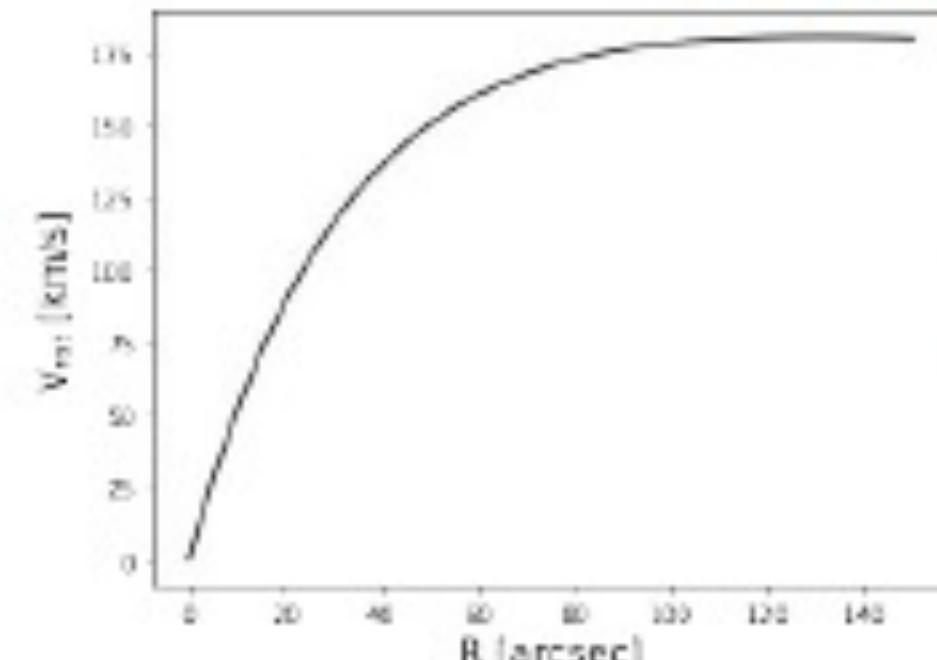
New methods of extracting resolved galaxy properties from HI spectra

Narusha Isaacs (PhD Candidate, UWC) Supervisors: Dr. E Elson, Dr. B.-Q. For

Method to create models

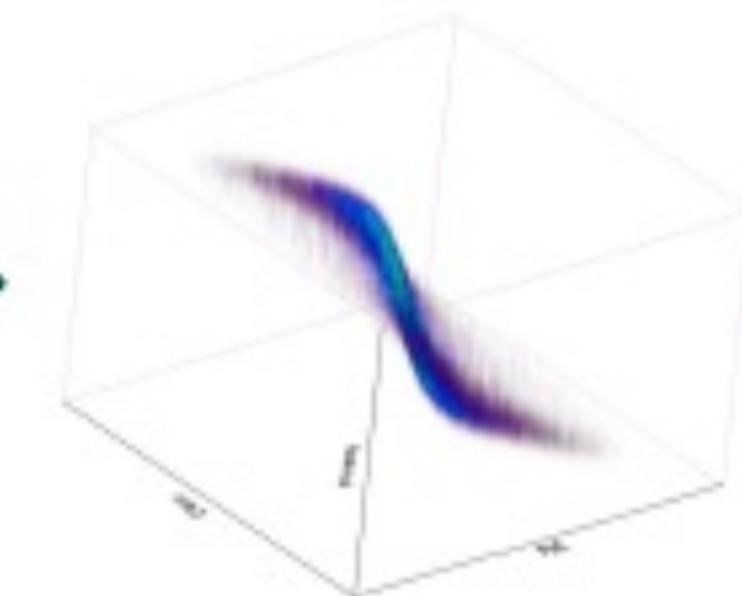


Radial Mass Distribution

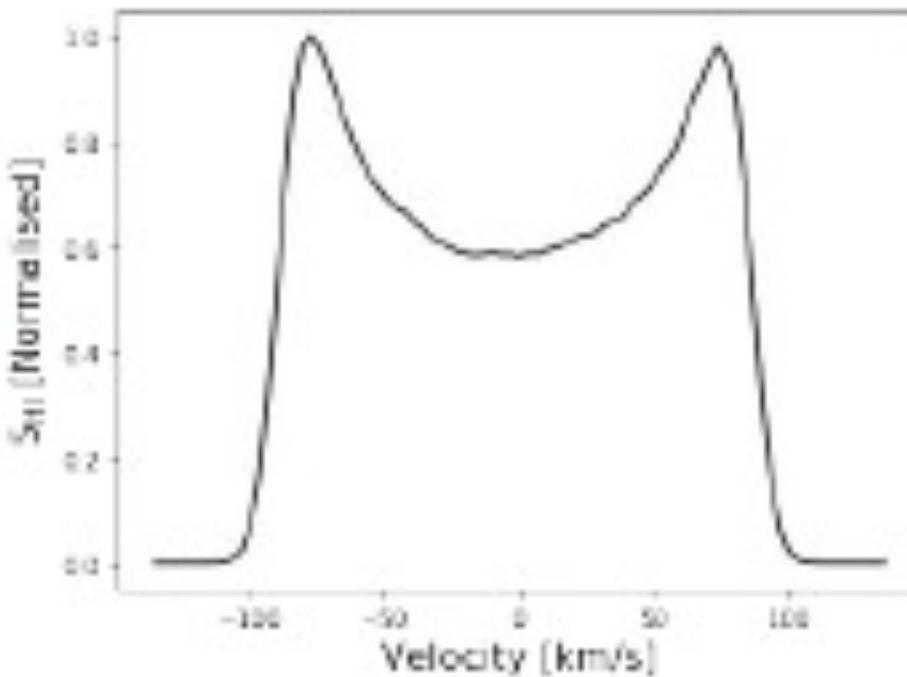


Rotation Curve

→ BBAROLO →
3D Based Analysis of Rotating Objects via Line Observations



HI data cube



HI spectrum

Testing with THINGS galaxy NGC 3198

Developed a method to constrain $M_{HI}(R)$ and $V_{rot}(R)$ using only **HI Spectrum**.

Aiming to study **kinematics** of galaxies beyond Local Universe.

Testing our method on nearby galaxies with **spatially-resolved HI Imaging** and then applying the method to **ALFALFA spectra**

