

Megasaura: New Atlas of Gravitationally-lensed Galaxies

Science Question: Galactic winds, powered by massive stars and stellar explosions, disperse the elements (carbon, oxygen, etc.) that are necessary for life. Have galactic winds changed with time?

Our Findings:

- Likely the highest-quality rest-frame UV spectra of distant ($1.6 < z < 3.6$) galaxies that will be obtained until the mid-2020s.
- These distant galaxies have remarkably similar galactic winds to nearby galaxies! It's possible that the same physical processes and regulation are happening across time.

Impact: Community data release, as a reference atlas; directly comparable to what Hubble has obtained for nearby galaxies.

Why it matters: Study of how these galactic winds change over time gives clues to how elements are dispersed in the universe, seeding the galaxies with the material required for life.



JWST will observe this target! Early Release Science program TEMPLATES (PI Rigby)