How can the *James Webb Space Telescope* measure First Light, Reionization, and Galaxy Assembly?

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**Abstract**

In this poster, we briefly review the capabilities of the 6.5 m James Webb Space Telescope (JWST) — slated for launch to a halo L2 orbit in 2013 — including the means by which it will be an improved optical telescope that can display automatically in space.

The new scientific frontier of JWST is to act as an important driver of the next generation of galaxies, studies and realize advanced understanding of the nature of reionization, and galaxy assembly, all in the context of future JWST imaging, spectroscopy, and galaxy assembly. We also discuss a key role of JWST in the broad area of JWST data-base from redshifts accurately measuring their distribution over rest-frame structure and type as a function of redshift.

We show that relatively nearby galaxies, observed in their rest-frame UV-optical light, will be very high redshifts, and that sophisticated methods to determine the structural parameters of faint galaxies can be a key tool for studying galaxies. We also discuss the potential of JWST's short-wavelength performance — which needs to be retained in the HVir observations of the structure — to affect JWST's ability to accurately measure faint galaxy parameters.

JWST can measure how galaxies of all types formed over a wide range of cosmic time, by measuring their redshift distribution as a function of rest-frame structure and type as a function of redshift. The JWST design assumes that objects formed pervasively at $z \approx 10$, over a wide range of cosmic time, by measuring their redshift distribution as a function of rest-frame structure and type as a function of redshift.

**Outline**

1. What is JWST and how will it be deployed?
2. How can JWST measure Galaxy Assembly?
3. How can JWST measure First Light and Reionization?
4. How can JWST measure Galaxy Assembly?
5. How can JWST measure First Light and Reionization?
6. How can JWST measure Galaxy Assembly?
7. Will drop JWST images into the confusion limit?

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