

JWST and the discoveries of Carina Nebula

Mohit Rajpoot and Yash Giri

Discover the Undiscovered.....We Ain't kidding"

Introduction

Formally, The James Webb Space Telescope (JWST) is a large, space-based observatory launched into space in. It is designed to provide unprecedented views of the universe and enable breakthrough discoveries. One of its primary targets is the Carina Nebula, a region of immense star formation and activity.

But for us, it's a celestial emissary destined to traverse the cosmic roads and unravel the enigmatic beauties of the universe. With its vast optics and next generation instrumentation, this awe-inspiring instrument shall pierce the celestial veil, granting us a glimpse into the primordial origins of creation itself.

Carina Nebula



Figure: Carina Nebula captured by Hubble

JWST's Capabilities

- High-resolution imaging
- Infrared spectroscopy
- Multi-object spectroscopy
- Coronagraphic imaging
- Composition Determination
- Jaw-dropping Clarity

JWST's Observations of Carina Nebula



Figure: JWST Observation of Carina Nebula

Key Findings

- Detailed mapping of star-forming regions
- Identification of protostellar objects
- Study of dust properties and distribution
- Detection of molecular clouds and their dynamics

Conclusion

The JWST's observations of the Carina Nebula have provided invaluable insights into the processes of star formation, the structure of interstellar matter, and the evolution of galaxies. The high-resolution images and spectroscopic data is expected to help the scientist unfold the mysteries of various stellar objects of the universe