

Dr. Nina Bonaventura



DAWN/NBI Postdoc

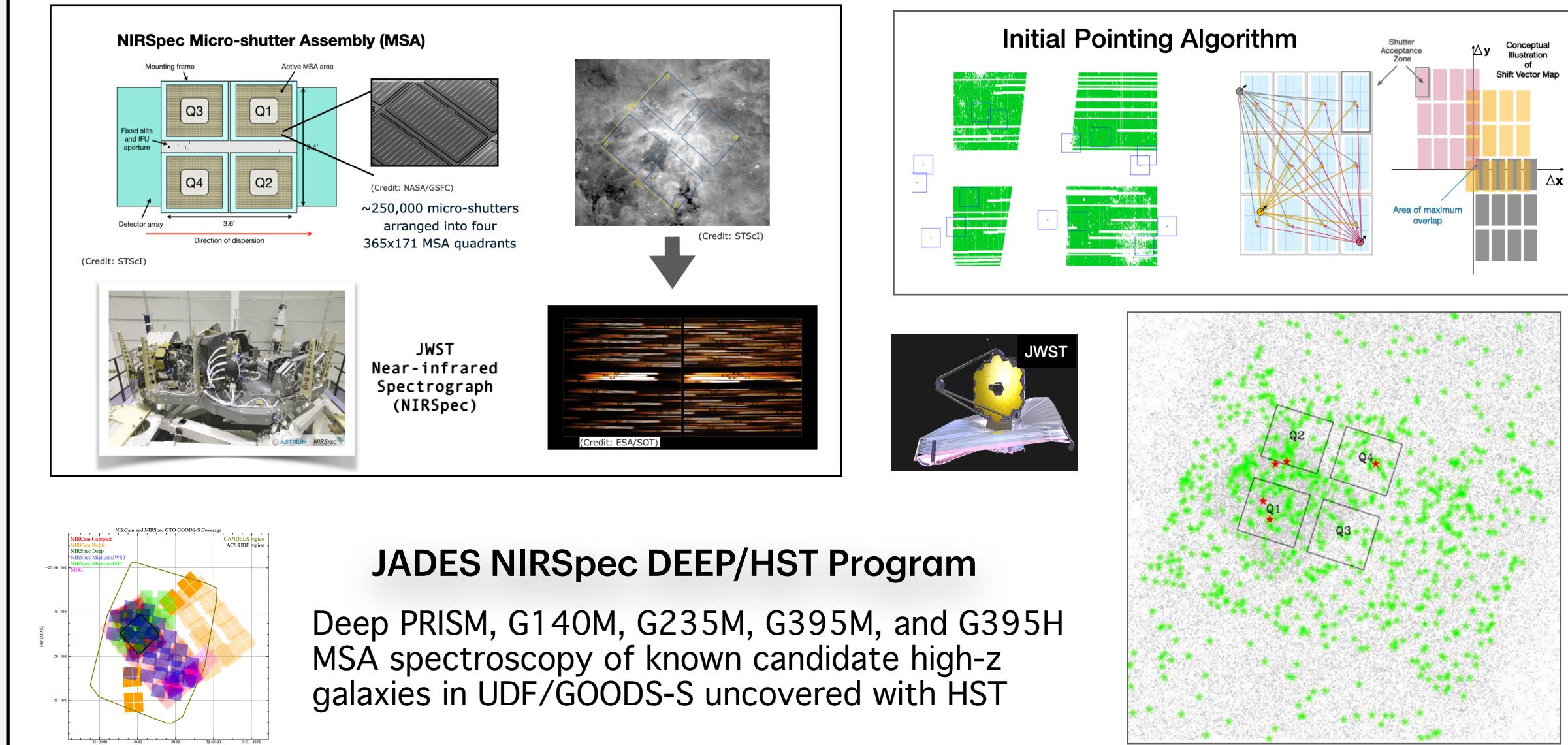
- Current science primarily involves the **optical & infrared, spectroscopic and photometric study of high-z galaxies and Brightest Cluster Galaxies.**

I also design **algorithms** and develop associated **astronomical software** (in Python) for optimizing and analyzing observations taken with space-based observatories (previously for Chandra, currently for the JWST/NIRSpec GTO and Commissioning teams).

- During the last year, I have been an active NIRSpec GTO Team member, continuing to help expand, maintain, and test the “IPA+eMPT” software developed with supervisor Dr. Peter Jakobsen for optimizing NIRSpec Multi-object Spectroscopy (MOS) mode observations.
- I have also conducted an ongoing search for and characterization of **$z>9$ Lyman-break galaxy** candidates culled from Dr. Gabe Brammer’s Complete **Hubble Archive for Galaxy Evolution (CHArGE)**.
- In the future, I will participate in the JWST/NIRSpec commissioning activities at STScI, as both a trainer and trainee; and continue to carry out the associated scientific and technical tasks required by the scientific program of the NIRSpec GTO Team.

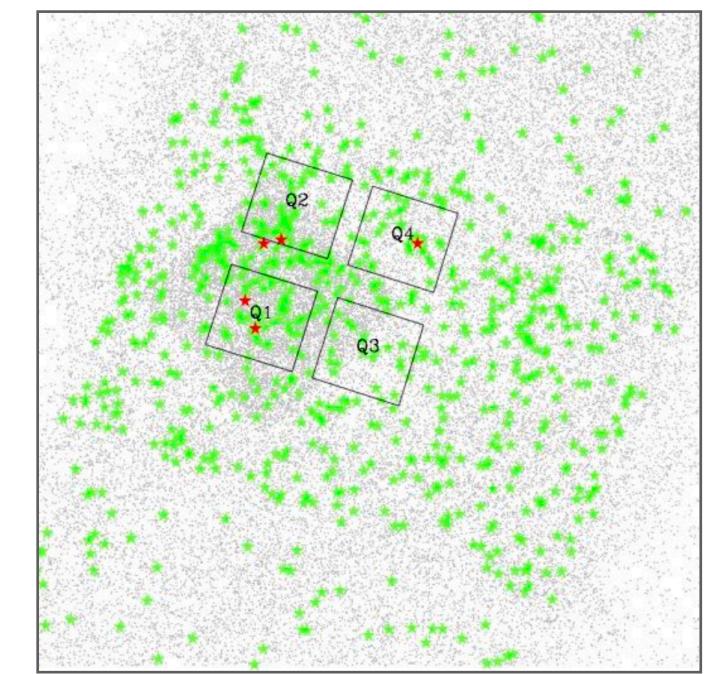
I also hope to expand the current investigation of Lyman-break-selected $z>9$ galaxy candidates from CHArGE to lower redshifts, to start a comprehensive scientific campaign of galaxy properties at $z > \sim 7$

Multi-object Spectroscopy with JWST/NIRSpec



JADES NIRSpec DEEP/HST Program

Deep PRISM, G140M, G235M, G395M, and G395H MSA spectroscopy of known candidate high-z galaxies in UDF/GOODS-S uncovered with HST



Lyman Break Selection of High-redshift Galaxies

