

THE NANCY GRACE ROMAN SPACE TELESCOPE



Roman Project Status (selected highlights)

- **Wide Field Instrument**
 - Completed opto-mechanical assembly, including filter wheel installation and dry fit of engineering unit focal plane system
 - Flight focal plane array in thermal vacuum test.
 - Flight relative calibration system complete, and starting system level test
- **Coronagraph Instrument**
- **Telescope**
 - The Primary Mirror Assembly (PMA) and Forward Structural Assembly (FSA) (with the Secondary Mirror Assembly) are complete.
- **Spacecraft**
 - Completed assembly of the spacecraft bus Primary Structure
 - The Antenna Pointing System (APS) team completed acceptance testing of Flight Model 1 and 2 Gimbal Actuators.
 - The Low Gain Antenna (LGA) Vibration Testing is complete.
- **Remain on track for October 2026 launch readiness date**

- **Plans for winter AAS meeting**

- Roman Space Telescope Town Hall

- Tuesday 6:30pm, rm 618/619

- Splinter session: Kickoff information session for core community survey definition

- Community led Definition of Roman Core Community Survey

- Wednesday 1pm, rm 4C-3

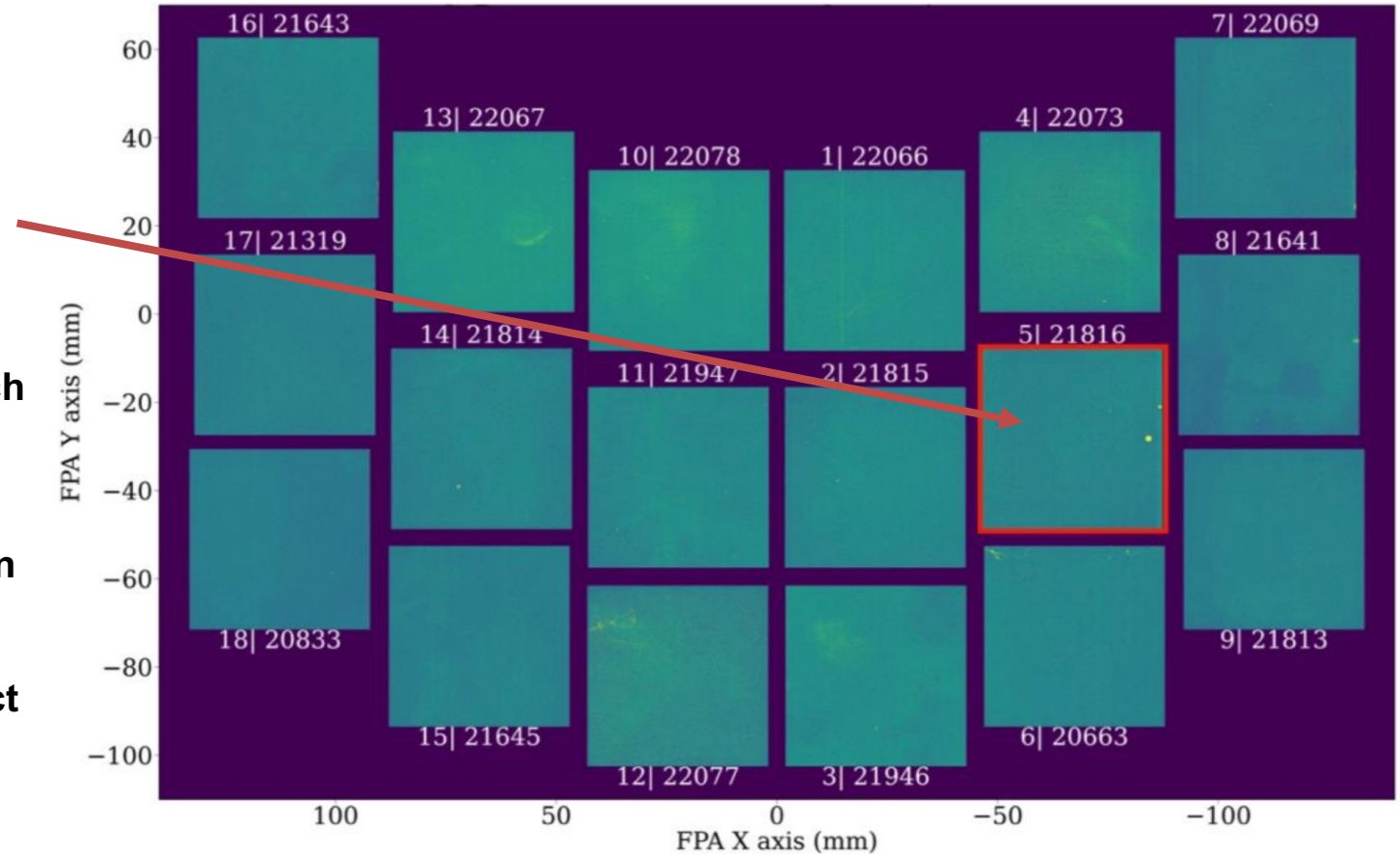
- Will be followed later in January by a virtual information session for people who cannot attend the AAS one

- Splinter session: Nearby Galaxies Under a New Light with Roman –

- Monday 1pm, rm 304

Triplet Test Data Now Available at MAST

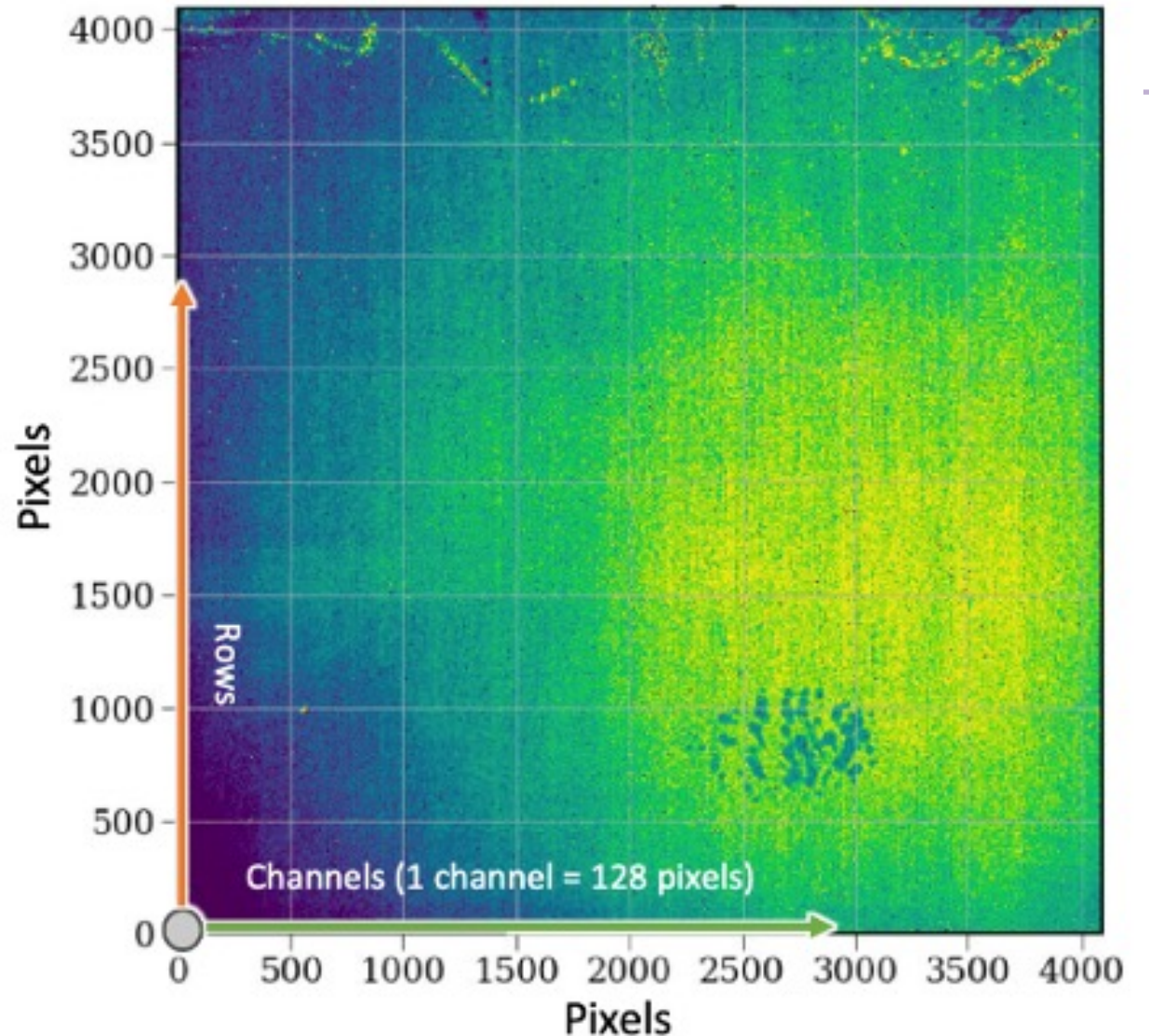
- At the heart of WFI is an array of 18 sensor chip assemblies (SCAs) in a focal plane. Each SCA in the focal plane mosaic consists of a 4096x4096 pixel Teledyne H4RG-10 sensor.
- Each SCA has undergone extensive testing by the NASA GSFC Detector Characterization Laboratory (DCL).
- To support the science community in preparing for Roman data, the Roman Project has released triplet test data for SCA 21816.
- In a triplet test SCAs are connected to flight-like sensor control electronics using flight-like electrical cables (a triplet is sensor+electronics+cable)



<https://archive.stsci.edu/missions-and-data/roman/wfi-triplet-test-da>

Triplet Test Data Now Available at MAST

- This release include release notes, a Getting Started Jupyter Notebook, and over 200 GB of data.
- These data products enable the measurement of:
 - Detector Linearity
 - Detector Read Noise
 - Detector Gain
 - Detector Dark Current
 - Flat Field Uniformity in each of the filters



An example of an image used to measure flat field uniformity.

<https://archive.stsci.edu/missions-and-data/roman/wfi-triplet-test-da>

Keeping in touch with Roman

- **Join the Roman news mailing list**
 - sign up to the mailing list by sending an e-mail to Roman-news-join@lists.nasa.gov (no subject or text in the body is required)
- **Monthly Roman Community Forum**
 - Will be replaced by community survey definition information session
 - https://asd.gsfc.nasa.gov/roman_forum/
- **Monthly Roman Virtual Lecture Series**
 - <https://roman.ipac.caltech.edu/Lectures.html>
- **Regular Science Workshops**
 - Next one will be organized by STScI – Roman Science Inspired by Emerging JWST Results, June 20-23
 - <https://www.stsci.edu/contents/events/stsci/2023/june/roman-science-inspired-by-emerging-jwst-results>

Roman Science Interest Group (2020 - ..)

- <https://roman.gsfc.nasa.gov/science/rsig.html>
- **Meeting presentations and notes available on the meetings tab**
 - Discussions on observing program, proposal opportunities, mission/instrument status etc
 - Provides advice and guidance on all aspects of community engagement
- **Regular opportunities to join this group**
 - New call coming soon!
- **Reports to Project and Program Scientists**

Megan Donohue (Chair)	Michigan State U.
Zeljko Ivesic	U. Washington
Jessica Lu	UC Berkeley
John MacKenty	STScI
Ashley Villar	Columbia U / Flatiron Institute
Alice Shapley	UCLA
Keith Bechtol	UW, Madison
Saurabh Jha	Rutgers U
Peter Melchior	Princeton U
Dara Norman	NOIRLab
Jessie Christiansen	NEXSci/ CalTech
Rachel Bean	Cornell U
Ryan Hickox	Dartmouth
Dimitri Mawet	CalTech
David Spergel	Simons Foundation (ex-officio)
Jeremy Kasdin	U. San Francisco (ex-officio)
Roeland van der Marel	Science Center (STScI) (ex-officio)
Lee Armus	Science Center (IPAC) (ex-officio)

Three Paths for Community Engagement

- **Join Roman Technical Working Groups**
 - Groups pursuing topics of interest across many science areas
 - Two groups currently (calibration, software) but will add more after ROSES proposal selection
 - Simple web sign up page, open to all
- **Submit science pitch/white paper for Core Community Survey definition**
 - Science pitch – few paragraphs describing science case for one of the community surveys, short questionnaire on needed survey parameters
 - Deadline Feb, low bar to entry (i.e. encourage high participation)
 - White papers – several page document with details on science case, sketch of survey design and methods/metrics on how to evaluate science FOM against survey parameters
 - Deadline summer, detail enables more meaningful evaluation
- **Submit proposal to Roman ROSES solicitation**
 - Funding to work on Roman science preparation (including engagement in working groups and survey definition)