

MONTHLY NEWSLETTER



INAF Osservatorio Astrofisico di Arcetri

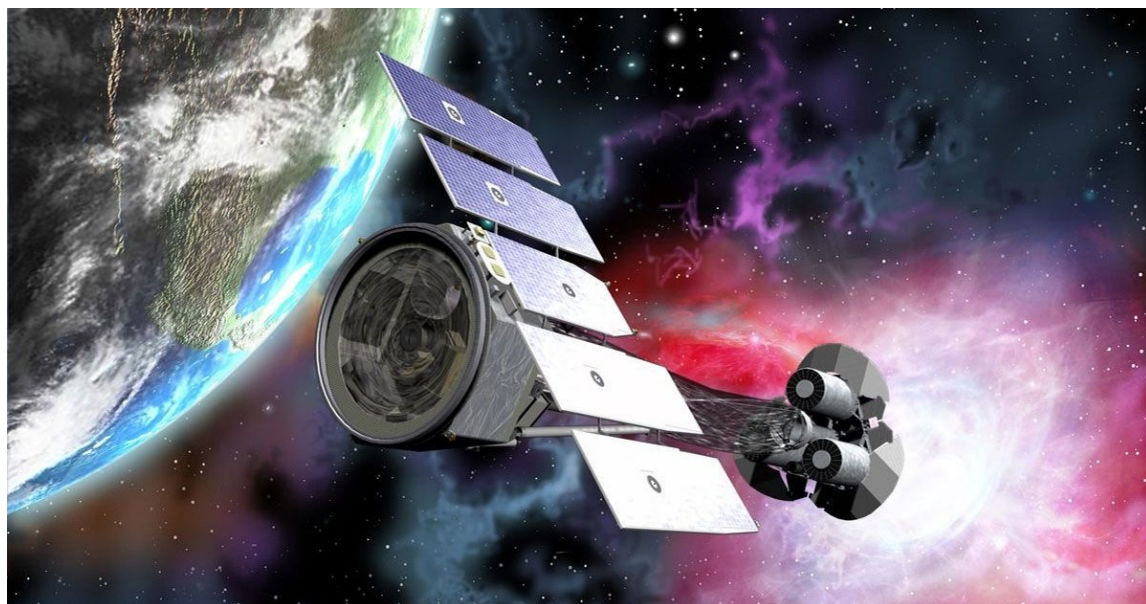
ISSUE 14, DECEMBER 2021

HIGHLIGHTS

IXPE MISSION

The Imaging X-ray Polarimetry Explorer (**IXPE**) is the X-ray polarimetric satellite originates from a collaboration among NASA, ASI, INAF and INFN, has been successfully launched on **Dec. 9th 2021** from Kennedy Space Center (KSC) in Florida.

N. Bucciantini leads the Topycal Working Group on Pulsar Wind Nebulae, within the IXPE collaboration. Pulsar Wind Nebulae are one of the main targets of this mission with 6 objects selected among the most promising sources. Bucciantini has taken part to the mission development phase and to the selection of the scientific targets.



Credits NASA

JAMES WEBB SPACE TELESCOPE

The James Webb Space Telescope was launched on **Dec. 25th 2021** on an Ariane 5 rocket from Europe's Spaceport located near Kourou, French Guiana. The JWST is an international program led by NASA with its partners, ESA (European Space Agency) and the Canadian Space Agency.

Link: <https://www.jwst.nasa.gov/> | video: <https://www.youtube.com/watch?v=9tXlqWldVVk>



Credits ESA

INAF-OAA involvement

- G. Cresci in [GTO NIRSpec](#)
- M.T. Beltran Sorolla: panelist JWST Time Allocation Committee Cycle I (Galactic panel)
- L. K. Hunt: panelist JWST Time Allocation Committee Cycle I (Extragalactic panel)

General Observer Programs in Cycle I:

- A. F. Marino: PI of the proposal "[Solving the Globular Clusters Multiple Population Enigma through JWST](#)"
- A. Amiri, F. Belfiore, G. Cresci, F. Mannucci, A. Marconi: Cols of the proposal: "[Opening the era of direct metallicity measurements in high redshift galaxies](#)", (PI: M. Curti)
- F. Bacciotti, C. Codella, F. Fedele, L. Podio: Cols of the proposal "[PROJECT-J: PROtostellar JEt's Cradle Tested with JWST](#)", (PI: B. Nisini)
- F. Belfiore: Col of the proposal "[A JWST-HST-VLT/MUSE-ALMA Treasury of Star Formation in Nearby Galaxies](#)", (PI: J. Lee)
- S. Bianchi: Col of the proposal: "[Structure formation and baryonic cycling in the edge-on galaxy NGC891](#)", (PI: I. De Looze)
- L. Hunt: Col of the proposal: "[Shining light on the CO-dark H2 gas in the heart of M83](#)", (PI: Svea Hernandez)
- L. Pino: Col of the proposal: "[The nature, origin, and fate of two planets of a newborn system through the lens of their relative atmospheric properties](#)", (PI: J.M. Désert)
- S. Salvadori, V. Gelli: Cols of the proposal: "[Galaxy assembly at \$z > 6\$: unraveling the origin of the spatial offset between the UV and FIR emission](#)", (PI: S. Carniani)

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TECHNOLOGICAL MILESTONES

SKA Software Contract awarded to INAF

In the last months, the giant radio-telescope SKA (Square Kilometre Array) entered in the construction phase. With this transition many commercial and academic collaboration contracts have been awarded to top level players in the technological arena. Two of these contracts were awarded to INAF. One of them, worth nearly 4M€, covers the development of the Monitor and Control Software for the SKA core processing part (CSP – Central Signal Processing) and the Human Interfaces to the Engineering portion for all the telescope (Taranta).

The software development will be handled by a SAFE Team of skilled people, the **Cream Team**. INAF people represents the majority of the team: **C. Baffa, E. Giani, G. Marotta** (INAF-OAA), M. Canzari, M. Di Carlo (INAF Teramo) and V. Alberti (INAF Trieste). The other team members comes from five different countries: H. Ribeiro, A. Dubey, M. Salitska, I. Novak, A. Söderqvist.

Scheme: <https://tinyurl.com/cspsubarray>

Link: <https://www.skatelescope.org/news/ska-construction-steam-ahead/>

