



Contribution ID: 111

Type: **not specified**

# Commissioning SKA-Low: first results and plans towards Science Verification

*Monday 24 November 2025 15:20 (20 minutes)*

SKA-Low will become the most sensitive radio telescope operating in the 50 - 350 MHz frequency range. Located in the remote Murchison region of Western Australia, SKA-Low will ultimately comprise 512 stations, each with 256 dual-polarization antennas, distributed over a maximum baseline of 74 km.

The telescope is entering a pivotal phase in its commissioning journey. The recently completed Array Assembly 0.5 (AA0.5) - a four-station array with a ~5.5 km maximum baseline - has delivered first results, including successful testing of system stability, calibration strategies, beamforming (both single-station and tied-array), detections of known pulsars, sensitivity validation, and first interferometric images.

We will present an overview of SKA-Low Science Commissioning activities, with highlights from the AA0.5 period, initial outcomes from the Array Assembly 1 (AA1) phase, and plans for the next phases of testing.

These include scaling to longer baselines of larger array assemblies, more complex calibration, and increased operational robustness towards Science Verification and ultimately full-scale science readiness.

Imaging capabilities at each stage and preliminary plans for the commissioning surveys will finally be briefly discussed.

These commissioning efforts are foundational to SKA-Low's transformational role in probing the low-frequency Universe. Feedback from the broader scientific community is welcome as we progress toward full SKA-Low's scientific readiness.

**Presenter:** Dr MACARIO, Giulia (SKAO)

**Session Classification:** SKAO General