



Contribution ID: 43

Type: Oral

ITPM ADU 1.5 for LFAA and general purpose application - 15'

Monday, 3 December 2018 14:00 (15 minutes)

ITPM ADU is an international collaboration led by INAF team, whose goal is the realization of a digital equipment designed and produced for SKA-LFAA station signal processing. The project started in 2013 and led to the production of a digital platform consisting of 3 hardware upgrades (ITPM 1.0, 1.1 and 1.2), the processing and management firmware for LFAA and the station control software. Together with the design of a proper housing rack, made in Italy, the system ITPM mounting ADU 1.2 was adopted in AAVS1 experiment, held in Australia last year.

This work describes the new ITPM ADU 1.5 development to contribute to the implementation of final version of SKA-LFAA telescope, improving power consumption, clock distribution circuitry and cooling system; as well as the design and engineering of a digital platform ITPM-based for other projects related to radio astronomy, or signal processing for general applications.

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Session Classification: SKA-related technology and HPC activities