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Updates on the INAF C-band PAF development project

Tuesday, 28 November 2023 11:50 (20 minutes)

In this talk, we will show the status of a C-band Phased Array Feed (PAF) we are developing as part of the SKA Advanced Instrumentation Program (AIP). We are designing a PAF in the frequency range of 4-8 GHz for the primary focus of the Sardinia Radio Telescope (SRT) in order to test all the different technologies needed in the design and construction of a special radio astronomical receiver as a PAF. Starting from the large and complex design of the array of antennas to the highly integrated electronic circuits of the front end, containing the LNAs, filters, and other components, to the very complex back end and digital signal processor. All the most important radio astronomical groups in the world are investing many efforts in the PAF field to develop state-of-the-art cryogenic PAFs for their radio telescopes also in view of a possible development for the SKA-mid antennas.

Research area

Other

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