



Publication Year	2015
Acceptance in OA	2020-04-20T13:02:52Z
Title	The new 64m Sardinia Radio Telescope and VLBI facilities in Italy
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Handle	http://hdl.handle.net/20.500.12386/24110
Volume	29

The new 64m Sardinia Radio Telescope and VLBI facilities in Italy

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Abstract

The Sardinia Radio Telescope (SRT) is a new major radio astronomical facility available in Italy for single dish and interferometric observations. It represents a flexible instrument for Radio Astronomy, Geodynamical studies and Space Science, either in single dish or VLBI mode. The SRT combines a 64m steerable collecting area, one of the largest all over the World with state-of-the-art technology (including an active surface) to enable high efficiency observations up to the 3-mm band. This new radio telescope together with the two 32m antennas in Noto and Medicina can be used for VLBI observations on a national basis (VLBIT). Data can be correlated in a short time (in real time soon) thanks to fiber-optics connection among the radio telescopes and the software correlator installed at the Radio Astronomy Institute in Bologna (IRA/INAF). In the poster I will present capabilities of the SRT telescope as well as the VLBIT project and I will shortly discuss the scientific prospects of the VLBIT.

Publication:

IAU General Assembly, Meeting #29, id.2246761

Pub Date: August 2015