51st IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps (A4) SETI 1: SETI Science and Technology (1)

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THE SARDINIA RADIO TELESCOPE IN THE FRAMEWORK OF THE BREAKTHROUGH LISTEN PROGRAM: TECHNICAL & SCIENTIFIC COMMISSIONING AND FIRST RESULTS

Abstract

The Sardinia Radio Telescope (SRT) is a 64-m fully-steerable antenna, which is located in Sardinia, Italy. Besides a wide range of astrophysical studies, the telescope has been involved in the Breakthrough Listen (BL) Program as an auxiliary facility for searching ET (and, in parallel, performing Pulsar and Fast Radio Burst searches). We aim to survey the Galactic Center at higher radio frequencies (7 and 22 GHz, but up to 110 GHz in a near future) to find evidence of artificial transmitters from putative intelligent civilizations. Moreover, SRT is one of the important partner facilities for following up potential exoplanet candidate from the TESS program in collaboration with the BL team. We describe the ongoing activities in this framework, and in particular the commissioning of the system and the first results, as well as future perspectives.