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Author: Dr. Andrea Melis INAF - Istituto Nazionale di AstroFisica, Italy, amelis@oa-cagliari.inaf.it

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 for ETIs (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) to find evidence of artificial transmitters from putative intelligent civilizations. Moreover, as recently announced, SRT will be one of the important partner facilities for following up potential exoplanet candidate announced 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.