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52nd IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps (A4)
SETI 1: SETI Science and Technology (1)

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SIMULTANEOUS DUAL-SITE SETI WITH LOFAR INTERNATIONAL STATIONS

Abstract

Presenting the first ever search for extraterrestrial intelligence performed in Ireland. As part of the I-LOFAR and UC Berkeley Breakthrough Listen internship programme, we targeted nearby stellar systems that NASA's Transiting Exoplanet Survey Satellite has identified as harboring exoplanets whilst also surveying background stars from ESA's Gaia mission. In a multi-pronged search for evidence of advanced alien civilizations on these planets we analyzed our observations in a variety of ways. We search for both intentional and unintentional transmissions, the likes of which would be detectable to ET observers looking towards Earth. We look for Doppler shifted signals, signifying orbital motion, of very narrowband radio lines that are characteristic of artificial transmissions. Additionally, we look for several other synthetic signals that would be efficient for signalling over large distances, e.g. synthetic fast radio bursts. This poster reports on the methods and findings in O. A. Johnson, et. al (in prep).