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Active galaxies in the LoTSS DR2 survey

Thursday, 9 May 2024 11:30 (15 minutes)

he second data release of the LOFAR Two-Metre Sky Survey (LoTSS) covers 27% of the northern sky, with a total area of $\sim 5,700~\rm deg^2$. We have used a combination of automatic cross-matching, citizen science, and expert visual inspection to find optical identifications for around 3.5 million radio sources in the survey, generating by far the largest catalogue of identified radio sources ever and providing some important learning points for the SKA era. The unsurpassed statistics of the dataset allow us to pioneer new approaches to removing star formation contamination from AGN samples, generating of order 500,000 robustly selected AGN. These in turn allow new tests of radio AGN unified models, and greatly improved estimates of the importance of AGN feedback in the local universe. I'll discuss some preliminary results from these projects.

keywords

cross-matching, AGN

In-person or online?

in-person

Career level

Mid-Senior

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