

New radio continuum surveys and the life-cycle of radio AGN

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New radio continuum surveys - and in particular those at low frequencies - have given the opportunity to expand the selection and characterisation of remnant and restarted radio AGN. This is crucial in order to learn more about the life-cycle of these objects and relate it to AGN feedback.

I will present the latest results that we have obtained making use of images from LOFAR 150 MHz, which we have also combined, when possible, with Apertif 1.4 GHz images to derive resolved spectral index images.

With our pilot project focused on the Lockman Hole region, we have derived the fraction of remnant and restarted radio sources and compared with the prediction of models of radio source evolution.

The study the central regions of some of the candidate radio sources has been also followed up with images obtained with the LOFAR International Baselines (0.3 arcsec resolution).

Using what we have learned from all this, we are now expanding the search of remnant and restarted radio sources to larger areas (like the HETDEX region) to improve the statistics of these rare objects and the study of their properties. I will report on the results so far.

keywords

AGN, morphology, spectral index

In-person or online?

unsure

Career level

Mid-Senior

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