

The LeMMINGs survey: probing sub-kpc radio structures of nearby galaxies with e-MERLIN

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The Legacy e-MERLIN Multi-band Imaging of Nearby Galaxies survey (LeMMINGs) is a statistically-complete census of nuclear accretion and star formation processes in the local Universe in active and not active galaxies. The LeMMINGs observations at 1.5 and 5 GHz yield angular resolutions on 10s milliarcsecond-scales, with sensitivities of 10s μ Jy. Awarded 810 hours of observing time, the full statistical sample (at 1.5 GHz) plus several studies of individual objects have now been published. Combined with multi-wavelength follow-up observations, this survey will provide a unique legacy data set of our Galactic back yard, a springboard for the forthcoming SKA surveys. I will present an overview of the LeMMINGs results so far, including the 1.5 GHz sample results and associated Chandra X-ray data and optical HST data. I will describe the next steps for LeMMINGs to analyse the 5 GHz survey and produce widefield images to categories all radio sources in the LeMMINGs galaxies.

keywords

local galaxies, active and non-active galaxies, AGN, jets, star formation

In-person or online?

in-person

Career level

Mid-Senior

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