

Low frequency follow-up of giant radio galaxies that shouldn't exist!

Abstract

We request 9 hours to perform a single pointing with MeerKAT in order to obtain Ultra High Frequency receiver follow-up observations of two extremely large ($>2\text{Mpc}$) giant radio galaxies (GRGs). These two GRGs were discovered for the first time in L-band observations with MeerKAT. The existence of two such GRGs in a small, 1 sq. deg. field is extremely surprising, with a likelihood of only 0.0003 per cent based on the currently accepted GRG sky density. Their discovery implies that many more GRGs may exist than previously thought, and that it is thanks to the remarkable capabilities of MeerKAT that these will be revealed. Our UHF observations will help us to perform structural, spectral index and electron ageing analyses of these monsters, in order to better understand the nature of radio galaxies and the role of radio AGN in galaxy evolution.