

Hunting for Giant Radio Galaxies in SUMSS

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Giant radio galaxies (GRGs) are the largest single structures in the universe. GRGs are a subclass of radio galaxies, which have grown to megaparsec scales. Their total size is defined as the largest angular separation between the end of the two radio lobes and exceeds 1 Mpc. GRGs are much rarer than normal-sized radio galaxies. The reason for their gigantic sizes is still debated. Because of their expansion over large sizes, they are believed to be very old RGs at the endpoint of radio galaxy evolution. They provide important constraints to evolutionary models and also act as probes of intergalactic space.

The aim of this project is to carry out a survey for Giant Radio Galaxies from the Sydney University Molonglo Sky Survey (SUMSS), investigate their properties and compare it to similar studies in the northern hemisphere. SUMSS data will be queried and explored using Virtual Observatory tools.