

Giant Radio Source

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About Giant Radio Source:

- The Giant Radio Sources are among the **largest objects in the Universe**.
- These are powered by a super **massive black hole**, typically with a mass ranging from ten million to one billion times that of the Sun.
 - These super black holes release **jets of hot plasma** produce massive lobes of radio emissions, spanning much greater distances than the visible size of the galaxy.
- Astronomers believe that GRSs represent the **final stage of radio galaxy evolution** due to their enormous sizes.
- **Significance**
 - They help in understanding the **evolution of radio sources** and studying the intergalactic medium that confines the lobes far from the parent galaxy.
 - The study of giant radio galaxies helps scientists to comprehend the relationship existing between the black hole activity and evolution of radio galaxies.
 - It also helps scientists understand more about the **distribution and behaviour of matter in the cosmos**.

Q1: What is the Giant Metrewave Radio Telescope (GMRT)?

GMRT is a low-frequency radio telescope that helps investigate various radio astrophysical problems ranging from nearby solar systems to the edge of the observable universe.

Source: [Indian astronomers discover 34 new giant radio sources](#)

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