

RADIO SOURCES IN NORMAL GALAXIES

- I. What are "normal" galaxies?
 - A. Range of radio properties, need for representative samples
 - B. Volume-limited samples
 - C. Optical selection
 1. magnitude
 2. diameter
- II. Types of sources and associated emission mechanisms
 - A. Massive "objects" or black holes (synchrotron radiation)
 - B. Diffuse cosmic rays (synchrotron radiation)
 - C. Discrete supernova remnants (synchrotron radiation)
 - D. Ionized hydrogen regions (thermal "free-free" emission)
 - E. Stars
 1. pulsars
 2. binary stars
 3. stellar winds
- III. Radio source characteristics
 - A. Spectrum
 - B. Size and morphology
 - C. Luminosity
 - D. Polarization
- IV. Radio observations of normal galaxies
 - A. E/SO galaxies
 1. luminosity function
 2. morphology
 3. orientation
 - B. Spiral galaxies
 1. R-distribution
 2. morphology
 - a. nuclear
 - b. central
 - c. disk (r-distribution)
 - d. halo (z-distribution)
 3. galaxy-galaxy interactions

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