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Discovering the Radio Cosmos

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Galaxies are sprawling systems of dust, gas, dark matter, and anywhere from a million to a trillion stars that are held together by gravity. Nearly all large galaxies are thought to also contain supermassive black holes at their centers. Galaxies are the fundamental building blocks of our Universe. By using Green Bank Telescope I aim to study different galaxies in 21 cm hydrogen line and have done the continuum mapping of M31. One more aim is to detect high redshift galaxies and check the efficiency (capability) of the 20m GBT telescope. I have detected galaxies like NGC 4559($z=0.00271$), NGC 628 ($z=0.0219$), NGC 4565($z=0.0428$) and NGC 1530($z=0.00820$). I also verified the Hubble's constant value. I have also made one channel map of the M31 from data by continuum mapping. It will contribute to the better understanding of the galaxies, cosmology and telescope efficiency.

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