

**SOUTH CAROLINA STATE
UNIVERSITY**

RADIO ASTRONOMY PAIR TEAM

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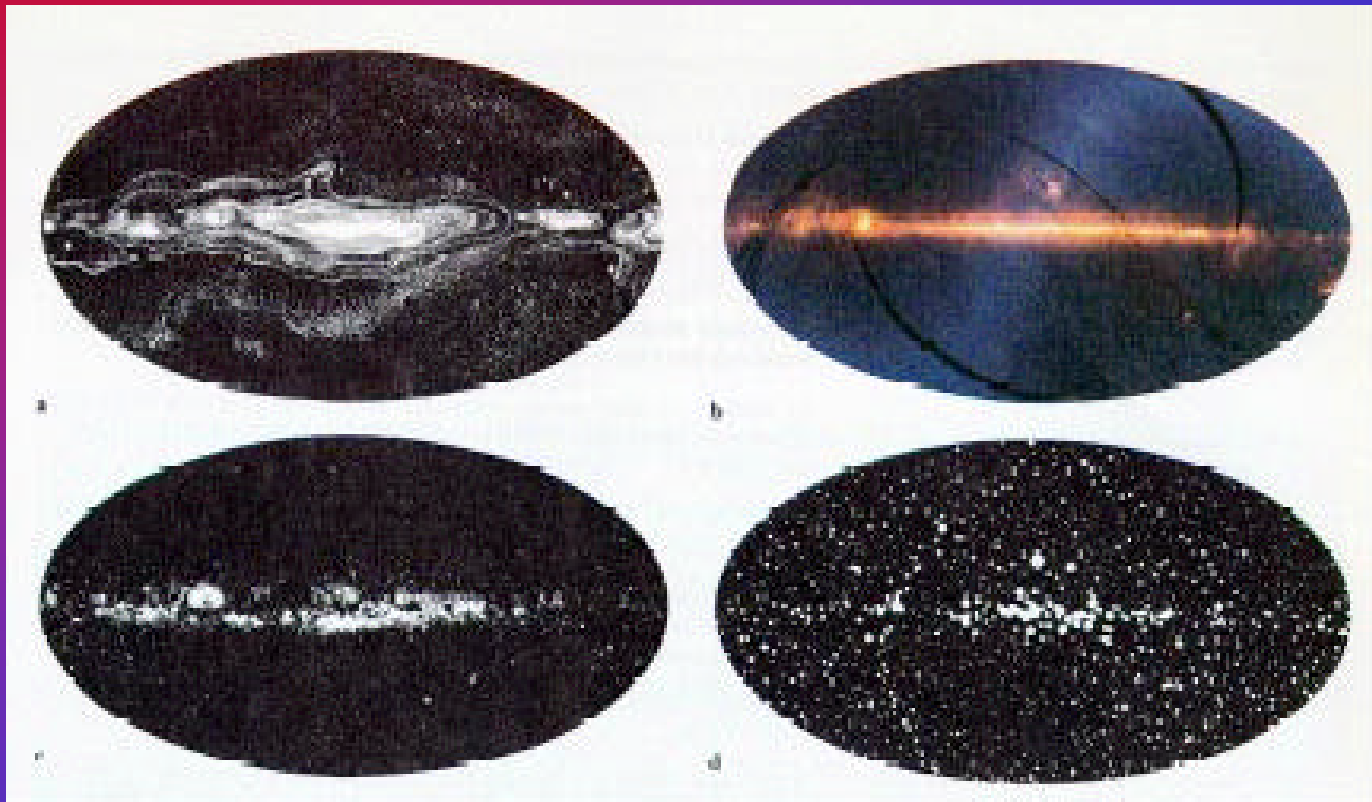
WHAT IS ASTRONOMY ?

FOUR MAJOR TYPES OF ASTRONOMY

- X RAY ASTRONOMY
- OPTICAL ASTRONOMY
- INFRARED ASTRONOMY
- RADIO ASTRONOMY

RADIO

IR



VISIBLE

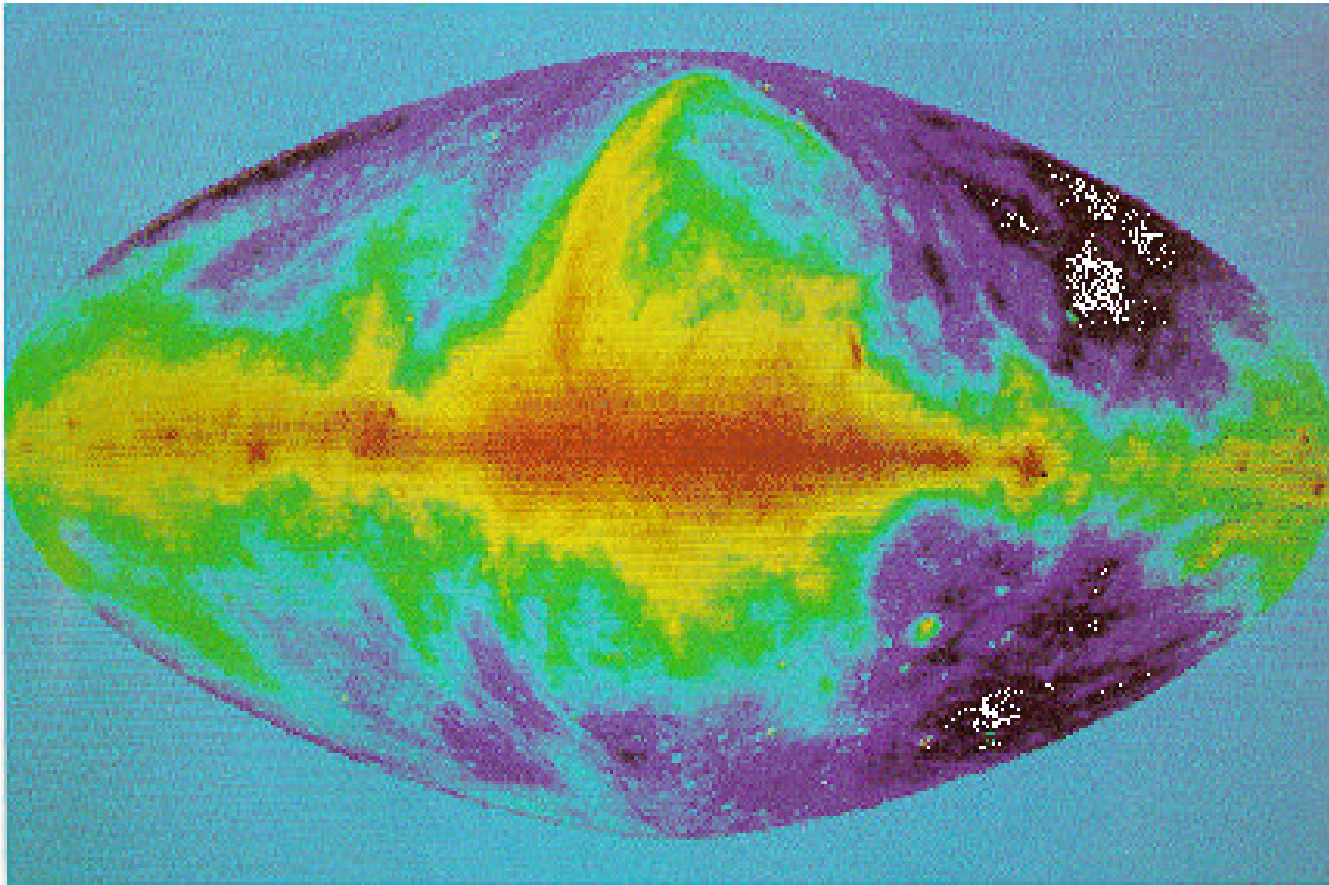
X RAY

WHAT IS RADIO ASTRONOMY?

- “A NEW KIND OF EYES”
- ELECTROMAGNETIC RADIATION
FREQUENCY 5 MHZ TO 300 GHZ
WAVELENGTH 100 M TO 1 MM
- TELESCOPES
SATELLITE DISHES TO TV
ANTENNAS

PISGAH ASTRONOMICAL RESEARCH INSTITUTE





Radio View of the Milky Way

**MOST GALAXIES ARE NOT STRONG
RADIO SOURCES**

HISTORY

- 1931- KARL JANSKY - BELL LABORATORIES
STUDYING RADIO FREQUENCY FROM STORMS
- 1937 - GORTE REBER - PROTOTYPE
PUBLISHED RADIO SKY MAP IN 1944
ONLY RADIO ASTRONOMER UNTIL
END OF WORLD WAR II
- 1965 - PENZIAS AND WILSON - 2.7 K

BRIEF OVERVIEW OF RESEARCH

SOURCES

- STAR SOURCES

PULSAR

- OUR SUN

- GALACTIC AND EXTRAGALACTIC

RADIO GALAXIES, QUASARS,
BLASARS

- PLANETARY

JOVIAN SYSTEM

82 FOOT DIAMETER TELESCOPES



THE PAIR TEAM



AND THE LITTLE BITTY RADIOTELESCOPE

PRESENTATION OF DATA

MAIN SOURCE

- **SUN**

EQUIPMENT

- **GPS TRACKING DEVICE**
- **RADIO TELESCOPE**
- **SIGNAL METER**

DISCUSSION OF RESULTS

CONCLUSION

- **WHAT WE'VE LEARNED**
- **IMPROVEMENTS AND SUGGESTIONS**
- **OBJECTIVE FOR NEXT YEAR'S TEAM**
- **FUTURE RESEARCH USING AN INTERFEROMETER**
- **FUTURE WORK AT PARI**

ACKNOWLEDGEMENTS

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DEMONSTRATION

QUESTION AND ANSWER

