Abstract

"Infrared Satellite Science"

S. Terêbey
California Institute of Technology/Jet Propulsion Laboratory

A very sensitive way to study the interstellar medium is through its dust. Interstellar dust efficiently absorbs starlight, is heated to tens to hundreds of degrees Kelvin, and so reradiates the bulk of its energy in the infrared. Unfortunately the earth’s atmosphere is opaque at these wavelengths, so that infrared satellites are needed to study the infrared. In 1983, IRAS changed our view of the infrared sky, providing the first infrared all sky survey. I will present science results from IRAS, and describe current missions such as ISO, MSX, and IRTS. I will also preview future missions such as SIRTF and WIRE, and give a peek at the next generation of infrared telescopes.