

The Serendip IV Arecibo Sky Survey

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We are currently two years into the five year SERENDIP IV sky survey at the National Astronomy and Ionospheric Center's 305 meter radio telescope in Arecibo, Puerto Rico. This sky survey searches for narrow band radio signals in a 100 MHz band centered at the 21 cm Hydrogen line (1420 MHz). Serendip IV utilizes a dedicated feed, L band receiver and a real time 168 million channel FFT spectrum analyser, allowing the system to scan the sky continuously and simultaneously with ongoing astronomy and atmospheric programs. The survey covers one third of the sky with a 1.7 second integration time, 0.6 Hz resolution, and a sensitivity of 10^{-24} W m².

Serendip IV instruments are also employed in seti programs at Parkes Observatory (Australia), Medicina Observatory (Italy), and Ohio State University, as well as pulsar programs at observatories in Nancay (France), Bonn (Germany), Arecibo and Greenbank (USA).