provides a very dense *uv* coverage, and very high dynamic range solar images, at the cost of angular resolution. The telescopes are closely located and operate at complimentary frequency bands. We discuss the results and prospects of a program of simultaneous observations using GMRT and GRH. We present the first results, from successful observations of a Coronal Hole (CH) on June 4, 2005, for which we used the combined observations to determine the boundaries, brightness temperature (T_B=7.7×10^5 K) and electron density (n_e=6.79×10^7 cm^{-3}) of the CH. We also present results for ongoing studies of the Quiet Sun on December, 2005.

SOLAR ATMOSPHERIC MODEL OVER A HIGHLY POLARIZED 17 GHz ACTIVE REGION

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A 3-D solar atmospheric model was developed to reproduce the radio frequency observation at 17 and 34 GHz from Nobeyama Radioheliograph. The model includes both the bremsstrahlung and the gyro-resonance emission mechanisms. It considers the magnetic field structure extrapolated from MDI magnetograms, and the changes in the quiet Sun density and temperature distributions of the atmosphere. We analyzed a highly polarized active region at 17 GHz (74-97%) on June 25 of 2002 (NOAA 10008). For 34 GHz the emission was totally free-free with a brightness temperature maximum in agreement with the observations, and indicated that all the region between the magnetic field footpoints changes its density and temperature constitution. The 17 GHz results showed that: a) the magnetic field intensity measured by MDI are not able to yield gyro-resonance emission in agreement with the observations; b) the magnetic field intensity in the solar atmosphere is at least two times the values resulting from a direct potential extrapolation from MDI magnetograms, and c) the brightness temperature maxima resulting from a factor of 2 increment in the magnetic field intensity reproduced all maxima observed during the day (11.4-17.6×10^4 K); d) the area of the active region was delimited by the intense core with negative polarization. In summary the model yields good agreement with the emission at both frequencies, which are caused by distinct emission mechanisms.

SUBMILLIMETER RADIATION DUE TO GYROSYNCHROTRON EMISSION FROM ACCELERATED ELECTRONS IN THE 2 NOVEMBER 2003 FLARE

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The flare on November 2nd, 2003, starting at 17:17 UT, occurred on the very active region 10486 located at S17W63. This flare, classified as a X8.3 and 2B event, was simultaneously detected by RHESSI and the Solar Submillimeter Telescope (SST) at 212 and 405 GHz. The time profile of the submm emission resembles that of the high energy X-rays observed by RHESSI and the microwaves observed by OVSA. Nevertheless, the submm spectra are distinct from the usual microwave spectra, showing a flux density increase with frequency. Gyrosynchrotron emission from the same population of accelerated electrons that emit hard X-rays observed by RHESSI, the same number of electrons (5×10^{35}) between 50 keV and 20 MeV, is found to fit the high frequency radio spectra. The fit to the spectra yield a very compact submm source of 0.8 arcsec, resulting in a density of accelerated electrons of 3.8×10^{11} cm^{-3}, in a high magnetic field region of 4500 G. A smaller magnetic field is possible if one considers emission from an anisotropic electron distribution.