
High Frequency Radar Astronomy and Radio Astronomy with the Over-The-Horizon Radar NOSTRADAMUS.

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Résumé

The NOSTRADAMUS radar system is a set of 288 antenna elements distributed over the arms of a three-branch star. It is operating in High Frequency waves (6 to 28 MHz) that bounce off the ionosphere, reaching areas far beyond the horizon. As an early warning radar system, its primary purpose was the detection of aircraft (and ship) at long ranges from 700 to 3000 km.

In the past years, research have been carried out on the ionosphere, on oceanography and on seismology. More recently, the radar has been used at trans-ionospheric frequencies to do radar astronomy by detecting meteorites and the Moon, and radio astronomy by observing Jovian and Solar radio emissions at long wavelenghts.

After a quick presentation of the OTH radar, we present some results of radar astronomy and radio astronomy. Finally, we discuss about possible other experiments that could be carried out in the future.

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