
KAIRA Space Weather Facility - First Results

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Since August 2012, the KAIRA, the Kilpisjärvi Atmospheric Imaging Receiver Array, which is a facility for Space Weather and Astronomy Research, has been in operation. KAIRA is located at Kilpisjärvi, Northern Finland, about 85 km east of Tromsø, Norway. Originally, KAIRA was built for prototyping work related to develop receiver technology for the EISCAT_3D Incoherent Scatter Radar, which is a large, phased-array 3D-imaging radar system for Northern Europe.

KAIRA, however, is a highly versatile and interesting facility in its own right. It is a broad-band receiver operating between 10 MHz and 88 MHz (LBA) and 110 MHz and 270 MHz (HBA). It can be used, e.g., to monitor interplanetary as well as ionospheric scintillations, as an imaging riometer, as a receiver for passive radar applications using the signals of other transmitters in the area, or indeed as a receiver for the current EISCAT VHF incoherent scatter radar.

Here we highlight a selection of the first results and tell about the facilities capabilities for space weather research.
