



## **Case studies of terrestrial kilometric and hectometric emissions observed by Demeter/ICE experiment**

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We report on terrestrial kilometric and hectometric radio emissions recorded by ICE (Instrument Champ Electrique) experiment onboard DEMETER micro-satellite. This experiment measures the three electric field components of electromagnetic and electrostatic waves in the frequency range from DC to 3.25 MHz. Despite limited satellite invariant latitude (data acquisition below about  $65^\circ$ ) specific events have been observed in the frequency range from 100 kHz to about 1 MHz. This range covers the well known auroral kilometric radiation (AKR) and also the terrestrial kilometric continuum. Also sub-auroral terrestrial emission is also measured at higher frequency up to 3 MHz. The high spectral capability of the experiment leads us to distinguish between the bursty and the continuum emissions. Selected events have been found to principally occur in the late evening and early morning sectors of the magnetosphere (22 MLT – 02 MLT) but others have been observed on day side. Our first results are compared to previous radio observations performed on board INTERBALL-1 (Kuril'chik et al, Cosmic Research, 43, 2005) and GEOTAIL (Hashimoto et al., JGR, 104, 1999) satellites.