Latest results from Finnish ELF-VLF campaign held in December 2013

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We are going to present our newest results observed in December at Kannuslehto in Finland, and hopefully simultaneous observations made at Lovozero, Russia.

Plasmaspheric density models in whistler inversion and whistler-FLR cross calibration

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One of the major objective in PLASMON project (*http://plasmon.elte.hu*) is to provide plasma densities for data assimilative modeling of plasmasphere from two ground based measurements: whistlers and field line resonances (FLRs). The whistler inversion method used in this procedure includes various model, such as wave propagation, magnetic field, field aligned density distribution and equatorial electron density models. The latter one is a special one used for multiple-path whistler groups. In this paper we will present the effect of various models used in the inversion procedure. As one can obtain electron densities from whistler inversion and plasma mass densities from FLRs, the ion constitution would be required to connect the to data set (that are intended to use in the plasmasphere model), which is rarely known or available. Therefore we have developed a method for cross calibration of the data from the two sources. It includes physics based and experimental field aligned plasma density distribution models as well as comparison with in situ wave and density (IMAGE, Cluster and Van Allen Probes) measurements.