



Themis observations of whistler wave normal angles

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Since spring 2007, the five Themis spacecraft have monitored the vicinity of Earth along orbits, which reach from the dayside solar wind until far down Earth's magnetotail. A magnetometer (SCM) and an electric field instrument (EFI) onboard Themis can be operated in a wave-burst mode which allows for sampling of magnetic and electric waveforms with a rate of up to 8192 Hz. These waveform snapshots have been subject to spectral and polarization analysis. The computed parameters fill a database which is established in the frame of the MAARBLE project ("Monitoring, Analyzing and Assessing Radiation Belt Energization and Loss"). Among those parameters is the direction of the wave-vector with respect to the ambient magnetic field. We present first results on the distribution of those wave normal angles from whistler mode emission. While propagating away from the source region, wave normal angles of whistler are believed to change from parallel to more oblique orientations. We study the wave-vectors both on the nightside, where source regions are close to the equatorial plane, and on the dayside, where sources can also be found at high latitudes.