Geophysical Research Abstracts, Vol. 7, 04117, 2005
SRef-ID: 1607-7962/gra/EGU05-A-04117

Coordinated analysis of whistler-mode chorus using the STAFF instruments onboard the Cluster and Double Star TC-1 spacecraft

E. Macúšová (1), O. Santolík (1,2), K. Yearby (3), N. Cornilleau-Wehrlin (4)

(1) Charles University, Faculty of Mathematics and Physics, Prague, Czech Republic, (2) IAP/CAS, Prague, Czech Republic, (3) University of Sheffield, Sheffield, UK, (4) CETP/UVSQ, Vélizy, France

We use simultaneous measurements of the Double Star TC-1 spapecraft and the four Cluster spacecraft to analyze whistler mode chorus emissions at different spatial scales. The TC-1 spacecraft orbits close to the equatorial plane while the Cluster spacecraft, close to their perigee, pass the equatorial region in a nearly perpendicular direction. The five spapecraft are equipped with the STAFF wave instruments, measuring the magnetic field fluctuations in the frequency range 8 Hz - 4 kHz. All of them can detect intense emissions of whistler-mode chorus occuring in the internal magnetosphere. Analysis of synoptic measurements of the Double Star and Cluster missions allows us to study the properties of chorus emissions in their source region close to the equatorial plane, as well as their propagation to higher latitudes.