



## **Comparing the Magnetic Activity in the Northern and Southern Auroral Region, 28. October – 4. November 2003**

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We have studied the magnetic activity simultaneously in the southern and northern auroral region during the Halloween event on 28.October – 4. November 2003. Our goal was to identify the substorm events in both hemispheres, and compare the duration and amplitude during the different substorm phases in both hemispheres. In the southern hemisphere we used the magnetic field measurements from Zhongshan observatory. In the northern hemisphere we used all the possible magnetic field measurements in the conjugate sector of Zhongshan, which is about over the northern part of Scandinavia. We will show examples of simultaneous substorm intensifications in both auroral ovals. However, in many cases the peak amplitude of northern and southern hemisphere substorms was different. Than made us to suggest that the ground-induced currents might need to be taken into account when amplitudes of substorms are compared in the southern and northern auroral region.