

CONJUGATE AURORAL OBSERVATIONS OF SUBSTORMS

K. M. LAUNDAL and N. Østgaard
University of Bergen, Dept. of Physics and Technology

Recent studies, both from conjugate observations and statistics from one hemisphere have shown that the asymmetry at substorm onset is largely dependent on the orientation of the interplanetary magnetic field. Using conjugate UV imaging from the Polar and IMAGE spacecraft, we show that the rapid changes associated with the substorm expansion phase have significant implications for the interhemispheric asymmetry. Our findings indicate that the interhemispheric asymmetry is imposed by tension forces from the lobes.

Inter-hemispheric asymmetry, aurora, substorm

Karl M. Laundal, University of Bergen/ Dept. of Physics and Technology, 5007 Bergen, Norway.
E-mail: karl.laundal@ift.uib.no