

## Localtime dependence of the geomagnetic disturbances at low and middle latitude during the magnetic storms

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In order to obtain the global distribution of the magnetospheric currents (e.g. Partial Ringcurrent, Field Aligned Currents) during the magnetic storms, we considered that the geomagnetic disturbances at the multipoint observatories with the wide range of localtime distribution are well suited to analyze the localtime asymmetry of the ringcurrent. In the previous presentation we showed that the local time asymmetry of the H-components in the magnetic storm on May 15, 2005 were well correlated that of the D-component. It means the partial ring current and the associated FAC could be well detected by the magnetic disturbances on the ground. In this paper we report the improvement of the algorithm which takes account of the subtraction of the daily variations and correction of the latitudinal dependence of the amplitude.