

# Geospace disturbances associated with geomagnetic storms

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Knowledge of the dynamic behavior of the Geospace plasma has been advanced with a great stride in 1990s based on the ground based and space born observations, and theory and computer simulation works. The Geospace has also importance from the viewpoint of the Space Weather because of its direct relation to the region of human activities, especially severe change of electromagnetic and plasma environment due to the magnetic storms. The data analyses of the Akebono satellite as well as recent satellite observations reveal particle acceleration and electrodynamics phenomena, which are difficult to explain with previous knowledge of the magnetosphere physics. It is worth to construct a new model of the Geospace plasma dynamics by applying new observational facts obtained from the new ground and satellite observations.