



The Magneto-gram Inversion Technique applied to real data

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Scientists often use the Magnetogram Inversion Technique (MIT) for their geomagnetic study. This technique gives the chance to define the dynamics and parameters that refer to magnetosphere and charged surface, and also distinguish the geomagnetic variation using the information that magnetic stations all over the world provide.

In our study, we have specifically calculated two substorms and their characteristics of every 5 minutes from 6:00am until 8:55am on Jan 9th, 2008, 2:30 am until 5:00am on Aug 27th, 2001; and also have documented information on a substorm and its characteristics of every minute on Aug 2nd, 2002. Eventually, we have done a detailed study on current system, field aligned current, the spreading of the potential current referred to the above, and its density. As a result of the study, we were able to define the new generator of a possible current in the magnetosphere.