

Modeling of the thermospheric density variations at around 200 km altitude

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Thermospheric density is one of the parameters which have many uncertainty. In particular, during/after geomagnetic storms, the thermospheric density variations are too complex to predict although many researchers have made significant efforts for modeling the density based on satellite observations and numerical simulations. In addition, there are few observations of the thermospheric density in the altitude range of 150-250 km. We should understand the thermospheric density variations for the safety operation of the Low Earth Orbit (LOE) satellites in addition to the scientific purposes. We introduce our research project to develop a method for modeling the thermospheric density variations using low-altitude satellite data and GCM simulations.

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