

**The Study of the NmF2 Longitudinal Structure by Assimilating
FORMOSAT3 /COSMIC Radio Occultation Data with NCAR
Thermosphere-Ionosphere Electrodynamics Global Circulation Model**

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The NCAR/TIE-GCM is a self-consistently electrodynamics coupled thermosphere and ionosphere model subjected by a few parameters and boundary conditions to describe the dynamic coupling of the ionosphere and the thermosphere. We assimilate the FORMOSAT-3/COSMIC occultation total electron content (TEC) data with the TIE-GCM to optimal the parameters in the model. By starting the stationary state in the TIE-GCM with the optimal parameters, the dynamic space weather in the ionosphere and the thermosphere could be simulated. We will study the NmF2 peaked longitudinal variations with the model and the results will be compared with other observations.