atmosphere

an Open Access Journal by MDPI

IMPACT FACTOR 2.5

CITESCORE 4.6

Coupling between Plasmasphere and Upper Atmosphere

Guest Editors:

Dr. Nigang Liu
Planetary Environmental and Astrobiological Research Laboratory (PEARL), School of Atmospheric Sciences, Sun Yat-sen University, Zhuhai 519082, China

Dr. Si Liu
School of Physics and Electronic Sciences, Changsha University of Science and Technology, Changsha 410114, China

Deadline for manuscript submissions:
closed (31 July 2024)

Message from the Guest Editors

Understanding the coupling between the plasmasphere and upper atmosphere requires a comprehensive investigation of the related physical processes under various solar wind and geomagnetic conditions. A large number of advanced missions have provided great opportunities for observations of the plasma, wave, and field in the plasmasphere and upper atmosphere, and allowed for simultaneous and conjugate measurements to be taken between these two regions. Based on the observational data, theoretical and numerical works can model and reproduce dynamics, for instance, particle heating and precipitation in the plasmasphere, the depletion and refilling of plasmasphere, the heating of the upper atmosphere, and aurora activities. This Special Issue welcomes the submission of papers that bring new insights into the coupling between the plasmasphere and upper atmosphere. We welcome the submission of observational, theoretical, and numerical studies on the relevant directions on this topic, which could promote the understanding and forecasting of space weather.

atmosphere

IMPACT FACTOR 2.5

CITESCORE 4.6

an Open Access Journal by MDPI

Editor-in-Chief

Dr. Daniele Contini
Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Str. Prv. Lecce-Monteroni km 1.2, 73100 Lecce, Italy

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, Inspec, CAPlus / SciFinder, Astrophysics Data System, and other databases.
Journal Rank: CiteScore - Q2 (*Environmental Science (miscellaneous)*)

Contact Us

Atmosphere Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/atmosphere
atmosphere@mdpi.com
𝕏@Atmosphere_MDPI