



Atmospheric Boundary Layer and Free Atmosphere: Dynamics, Physical Processes, and Measuring Methods

Guest Editors:

Dr. Artem Shikhovtsev

Institute of Solar-Terrestrial
Physics, Siberian Branch of
Russian Academy of Sciences,
664033 Irkutsk, Russia

Dr. Pavel G. Kovadlo

Institute of Solar-Terrestrial
Physics of Siberian Branch of
Russian Academy of Sciences
(ISTP SB RAS), Irkutsk 664033,
Russia

Deadline for manuscript
submissions:

closed (10 March 2022)

Message from the Guest Editors

Dear Colleagues,

Atmospheric boundary layer (ABL) has a significant impact on synoptic and meteorology, hydrology, transport of pollutants, weather forecasting as well as the optical turbulence and efficiency of optoelectronic devices. We invite you to publish the results of your research in the Special Issue including the following fields: Physical processes and phenomena in a free atmosphere, interactions with the ABL; The structure of the ABL, meteorological phenomena and processes in the ABL, features of transfer of air temperature, momentum, pollutions and another substances in the atmosphere; General questions of the theory of turbulence, Atmospheric turbulence and parameterization schemes; Study of the structure of small-scale dynamic and optical turbulence; Climate changes, regional climate and physical processes in the ABL. Simulation of the components in climatic system; Methods of remote measurements of atmospheric parameters; Astroclimate studies in the optical and mm/submm ranges; Site testing; Atmospheric optical effects; Adaptive optics systems in large ground-based telescopes.

Dr. Artem Shikhovtsev

Dr. Kovadlo Pavel Gavrilovich

Guest Editors





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Ilias Kavouras

Environmental, Occupational,
and Geospatial Health Sciences,
CUNY School of Public Health,
New York, NY 10027, USA

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, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/atmosphere
atmosphere@mdpi.com
[X@Atmosphere_MDPI](https://twitter.com/Atmosphere_MDPI)