Special Issue

Application of Remote Sensing in Atmospheric Physics and Climate Science

Message from the Guest Editor

The accurate forecasting of high-impact weather with high frequency and severe disasters remains a great challenge for meteorologists. Remote sensing detection, such as satellites, radars, and microwave radiometers, can not only monitor and warn of the occurrence and development of high-impact weather, but can also provide more accurate initial fields for numerical weather prediction models through inversion, fusion, and assimilation, which is key for the precise forecasting of high-impact weathers.

This Special Issue aims to publish and introduce the advanced technologies, theories, and methods of satellite, radar, microwave radiometer, and other remote sensing detection methods in the early warning and forecasting of high-impact weathers, such as rainstorms, typhoons, and severe convections, including, but not limited to, retrieval, quality control, fusion analysis, and the assimilation of remote sensing data. In addition, manuscripts on the formation and development mechanisms of high-impact weather and refined forecasting techniques using remote sensing detection data are also welcomed to be submitted to this Special Issue.

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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