Special Issue

Observation of Climate Change and Cropland with Satellite Data

Message from the Guest Editor

Climate change poses significant risks and uncertainties to food production. It not only impacts the hydrological cycle by altering elements, but also directly affects regional cropland utilization. As one of the land uses most severely impacted, cropland is highly sensitive to climate change. Satellite technology offers extensive, continuous, and long-term data coverage, enabling the precise monitoring of temperature, precipitation patterns, greenhouse gases, spatial–temporal distributions of cropland, crop health, and yield forecasting. Utilizing satellite data to observe climate change and cropland is essential for comprehensively understanding the impacts of climate dynamics on cropland, agricultural productivity, and the sustainable use of agricultural resources. The data sources used include remote sensing data, UAV data, and ground observation data, with the encouragement to use advanced information technologies such as AI, machine learning, and data mining

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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!

Editor-in-Chief

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