



Development and Applications of E-infrastructure for Crop System Modeling and Crop Yield Forecasting

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Deadline for manuscript
submissions:

closed (20 December 2023)

Message from the Guest Editors

The instability of global climate change and global food security has posed new demands for crop modeling and yield prediction. With the development of agriculture, many kinds of high-performance observation platforms have been set up, including wireless sensor networks, remote sensing satellites, drones, radar, etc. To satisfy the need for data mining in agriculture, artificial intelligence techniques have become popular in crop modeling and yield prediction. Deep learning algorithms have shown great vitality, driving the rapid development of artificial intelligence models. By leveraging the power of these fields, we can more accurately simulate the relationship between crop growth and development processes and the environment, construct more intelligent crop system models, and predict crop yield more accurately.

This Special Issue will focus on research related to big data and foundation models. It will cover methods for cleaning and enhancing multi-source observation data, the development of dataset products, the inversion of crop growth and environmental parameters, the simulation of crop growth changes under complex weather conditions, and yield prediction models.





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Australia

Message from the Editor-in-Chief

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