

## Special Issue

# The Challenge of UAVs in Sustainable Agriculture: Integrative Remote Sensing from Leaves to Landscapes

### Message from the Guest Editors

The rise of unmanned aerial vehicles (UAVs) has boosted the acquisition of remote sensing data with high spatial and temporal resolution in a wide range of ecophysiological and hydrogeomorphological scales. UAVs can investigate plant ecophysiology at various scales, ranging from the leaf, canopy, and crop field to the whole agricultural landscape level. Simultaneously, the very same platform is useful for obtaining data from other essential agricultural factors, such as soil properties and water and energy flows at the catchment scale in agricultural landscapes. UAV technologies can facilitate the integration of data from multiple scales to improve agricultural performance in a more sustainable manner for the environment. Under the predicted climate change scenarios for the most important agricultural regions in the world, multi-scale integrative data from UAVs can improve ecosystem services such as water and resource efficiencies avoiding the alteration of biodiversity and environmental conservation.

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