



## Advances in Remote Sensing for 3D Plant Modelling

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### Message from the Guest Editors

3D modeling of plants is a trending research topic which still presents several open problems. The proliferation of novel acquisition systems based on UAVs, terrestrial laser scanners, and LiDAR technology enables the possibility to get detailed knowledge of the 3D structure of vegetation from real-world environments. In this Special Issue, we are interested in novel methodologies focused on plant modeling using remote sensing techniques. In this regard, there are several promising research lines pushing in this direction related to procedural modeling, inverse modeling, and guided procedural modeling which use real-world data as a reference to model the 3D plant structure and plant foliage as realistically as possible. Likewise, such methods focused on realistic simulations of 3D plant models under environmental effects are highly demanded in this topic. Finally, the study of plant geometry usually represents complex geometric shapes whose semantic segmentation is another challenging task to address. This Special Issue calls for studies that present innovative and/or disruptive ideas, and investigation results that integrate remote sensing data to advance 3D plant reconstruction.





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