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**Special Section Guest Editorial:
Remote Sensing and Sensor
Networks for Promoting Agro-
Geoinformatics**

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This is the second part of the Special Section on Remote Sensing and Sensor Networks for Promoting Agro-Geoinformatics. This part of the special section contains nine papers and continues covering a wide spectrum of research applications in agro-geoinformatics. The paper “Rice biomass retrieval from advanced synthetic aperture radar image based on radar backscattering measurement” by L. Tan et al. developed a rice biomass inversion algorithm based on a semi-empirical scattering model that utilized both ground and space-based scatterometer observation data in the growing season. The paper “Optimization of spatial sampling schemes for maize acreage estimation” by D. Wang et al. found that the spatial autocorrelation of sampling unit approached its optimal value with the sampling unit size at 500 m × 500 m. However, the spatial sampling units had to be stratified to improve the heterogeneity and thus the sampling efficiency. “Backscattering modeling of wheat using vector radiative transfer theory” by B. Huang et al. developed a microwave backscattering model for winter wheat by focusing on the distribution of wheat ears. They found that the proposed winter wheat model had better cross-polarized simulation results than the modified MIMICS model. The paper “Threshold model for detecting transparent plastic-mulched land cover using moderate-resolution imaging spectroradiometer time series data: a case study in southern Xinjiang, China” by L. Lu et al. investigated using threshold model to effectively detect transparent plastic-mulched land cover. They concluded that detection and mapping of PML by using MODIS time series with the TM method was feasible. “Potential of ensemble tree methods for early-season prediction of winter wheat yield from short time series of remotely sensed normalized difference vegetation index and *in situ* meteorological data” by S. Heremans et al. examined the potential of the boosted regression trees and random forests for early prediction of winter wheat yield using short time series of low resolution remotely sensed vegetation indices and *in situ* meteorological data. They concluded that the resulting models delivered early estimates that were accurate enough to support decision making in the agricultural sector and to allow for operational use. The paper “Error modeling based on geostatistics for uncertainty analysis in crop mapping using Gaofen-1 multispectral imagery” by J. You and Z. Pei analyzed the uncertainty of crop mapping using Gaofen-1 multispectral imagery and concluded that the proposal error modeling framework could be used to quantify the uncertainty in crop mapping and to summarize the spatial variation in map accuracy. The paper “Quantitative evaluation of observation capability of GF-1 wide field of view sensors for soil moisture inversion” by N. Chen et al. proposed to use WFV, Landsat8, and MODIS data to invert soil moistures based on the Perpendicular Drought Index (PDI) and modified PDI (MPDI). They found that the performances of WFV and OLI were consistent and that WFV performed better than MODIS. “Detection of the onset of glyphosate-induced soybean plant injury through chlorophyll fluorescence signal extraction and measurement” by F. Zhao et al. used chlorophyll fluorescence (ChlF) to detect the onset of soybean plant injury from treatment of glyphosate and concluded that glyphosate-induced soybean injury could be detected in a timely manner by using the ChlF measurements. Finally, the paper “Economic impacts of climate change on agriculture: the AgMIP approach,” by J. Delincé et al., investigated the long-term global impacts on crop productivity under different climate scenarios using the AgMIP approach (Agricultural Model Intercomparison and Improvement Project). The paper

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concluded that there existed consistency in terms of direction of change to climate change but relatively strong heterogeneity in the magnitude of the effects between models.

The second part of this special section covered a number of different topics. We want to express our deep appreciation to all authors and reviewers for their high-quality contributions and enthusiastic efforts to this special section.