

# PROCEEDINGS OF SPIE

## ***Remote Sensing for Agriculture, Ecosystems, and Hydrology XX***

**Christopher M. U. Neale  
Antonino Maltese**  
*Editors*

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## Introduction

This proceedings volume contains papers presented during the Remote Sensing for Agriculture, Ecosystems, and Hydrology Conference. The Conference was part of the International Symposium on Remote Sensing sponsored by SPIE—The International Society for Optics and Photonics. The Symposium was held at the ESTREL Congress Centre, Berlin, Germany, from 10th to 13th of September 2018.

Approximately 40+ oral and 20 poster papers were presented during this year's conference, covering a broad range of topics in the field of remote sensing applications for environmental science.

The program was organized into 10 sessions according to major themes, namely Sentinel Applications, UAV Applications, Rainfall and Evapotranspiration, Precision Farming and Smart Agricultural Solutions, Soil Moisture, Vegetation Monitoring, Temporal and Spatial Analyses, Hydrological Sciences Applications (2) and Forest Monitoring.

The conference Best Student Paper Award was given to the paper "Automatic wheat ear counting in field conditions, simulation and implications of lower resolution images" by Fernandez-Gallego *et al.*, presented by Jose A. Fernandez-Gallego (Univ. de Barcelona, Spain, and Univ. de Ibagué, Colombia).

The poster presentations also had good representation from the above-mentioned session themes. The presentations described both fundamental and applications-based research activities including modelling, laboratory and field experiments, and operational applications.

Our appreciation and gratitude goes also to the presenters for their efforts and to the participants for their insightful questions and discussions. Special thanks are also due to the host city for the excellent venue and to all the SPIE organizational staff for their support prior to, during, and after the symposium. We look forward to an even more successful conference in 2019 in Strasbourg, France.

**Christopher M. U. Neale  
Antonino Maltese**

