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

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

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# Introduction

This proceedings volume includes papers presented during the conference on Remote Sensing for Agriculture, Ecosystems, and Hydrology. The conference was part of the International Symposium on Remote Sensing sponsored by SPIE. The symposium was held at the Centre de Congrès Pierre Baudis, Toulouse, France, 21-24 September 2015.

The conference is dedicated to providing rapid dissemination of scientific and technical information, and attracts scientists and professionals from throughout Europe, Africa, Asia, and the Americas. Approximately 34 oral and 25 poster presentations were given this year, covering a broad range of topics in the field of remote sensing applications in environmental science.

The program was organized according to major themes, with 10 sessions on agriculture: natural resources monitoring; hyperspectral, spectroscopy and fluorescence; UAV and high spatial resolution imagery; image classification; agricultural applications; evaportranspiration and energy balance (covered in two sessions); hydrology and irrigation; vegetation and carbon monitoring; vegetation modelling; and snow and ice hydrology.

The poster presentations also followed the above-mentioned themes, discussing both fundamental and applications-based research activities, including modelling, laboratory and field experiments, and operational applications.

We extend our gratitude to Dr. Alasdair Mac Arthur (NERC/NCEO Field Spectroscopy Facility, GeoSciences, University of Edinburgh, United Kingdom) for giving the invited presentation, *A critique of field spectroscopy and the challenges and opportunities it presents for remote sensing for agriculture, ecosystems, and hydrology*; and Dr. Rasmus M. Houborg (King Abdullah University of Science and Technology, Saudi Arabia) for giving the invited presentation, *Application of a regularized model inversion system (REGFLEC) to multi-temporal RapidEye imagery for retrieving vegetation characteristics*. 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 of the SPIE organizational staff for their support prior to, during, and after the symposium. We look forward to an even more successful conference in 2016.

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



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