

EUFAR Expert Workshop on Hyperspectral Imaging from UAVs – Applications in Precision Farming

**University of Milano-Bicocca, Piazza dell'Ateneo Nuovo, 1, 20126
Milano - Meeting Room: RODOLFI (Building U6- IVth floor)**

December 14th, 2016 - 9:00-18:00

09:00 – 09:15 Welcome

*Micol Rossini,
UNIMIB, Italy*

09:15 – 09:30 Introduction to EUFAR and objectives of the EUFAR EWG meeting

*Ils Reusen & Stephanie Delalieux
VITO, Belgium*

09:30 – 09:55 Combining hyperspectral and high spatial image acquisition in a lightweight camera: from COSI-Cam to ButterfIEYE LS: Technology & Application

*Bavo Delauré & Stephanie Delalieux,
VITO, Belgium*

09:55 – 10:20 Performance and real time capabilities of the HySpex Mjолnir-1024 hyperspectral camera for end user applications like Precision Farming

*Pesal Koirala
NEO, Norway*

10:20 – 10:45 Multi-temporal crop monitoring with spectral snapshot cameras

*Helge Aasen
ETH, Switzerland*

10:45 – 11:00 COFFEE BREAK

11:00 – 11:25 The ARTMO retrieval toolboxes for semiautomatic mapping of vegetation properties from hyperspectral data

*Jochem Verrelst
Univ of Valencia, Spain*

11:25 – 11:50 Between plant research and precision farming: UAV related projects at the ETH Zürich Crop Science group

*Frank Liebisch,
ETH, Switzerland*

11:50 – 12:15 Integration of multispectral imaging sensor and spectrometers for precision farming: from researcher's and farmer's Perspective

*Bo Shan,
Carleton University, Canada*

12:15 – 12:40 From research to operationality: a workflow for standardized UAV-borne hyperspectral data

*Enrico Tomelleri,
EURAC, Italy*

12:40 – 14:00 LUNCH

14:00 – 14:25 Strategies for innovation in a “dynamically reshaping” world: open innovation practices, large industrials, SME/start-up, R&D labs

*Florin Paun,
ONERA, France*

14:25 – 14:50 Analysing time series of high resolution UAV imaging of agricultural experiments: Results and outlook

*Andreas Burkart,
Jülich, Germany*

14:50 – 15:15 Hyperspectral remote sensing for precision agriculture applications from airborne and UAS

*Micol Rossini,
UNIMIB, Italy*

15:15 – 15:40 Exploring the use of Sentinel-2 and UAV imagery for high resolution crop identification, phenology, and yield estimation

*Stephanie Zabala Ramos,
Lund University, Sweden*

15:40 – 15:55 COFFEE BREAK

15:55 – 16:20 Consumer-grade cameras on UAVs for multi-temporal monitoring of vegetation reflectance and NDVI

*Elias Fernando Berra,
Newcastle University, UK*

16:20 – 16:45 Yield prediction of potato using hyperspectral and thermal UAV-based data

*Wouter Maes,
UGent, Belgium*

16:45 – 17:10 Airborne Hyperspectral Collection, Processing and Exploitation: Considerations, Progress and Challenges

*William Oxford,
2Excel aviation, UK*

17:10 – 17:20 Potentials of UAV hyperspectral Rikola sensor for characterizing and monitoring of fluvial environments

*Luca Demarchi, Valeria Gentile, Marek Mroz
WULS, Poland; Sapienze, Rome; UWM, Poland*

17:20 – 17:30 Extracting canopy vigor parameters in fruitorchards on multiple scales

*Yasmin Vanbrabant,
KUL, Belgium*

17:30 – 18:00 Wrapping up

All