



2020 IEEE INTERNATIONAL WORKSHOP ON

METROLOGY FOR AGRICULTURE AND FORESTRY



UNIVERSITÀ DI TRENTO

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CALL *for* PAPERS

for the Special Session on

INTEGRATED WATER MANAGEMENT FOR AGRICULTURE (PART I): SENSING, MODELING, AND DATA INTEGRATION



ABSTRACT

One of the main challenges in the climate change era is water scarcity. As agriculture is one of the largest water users, water management in agriculture plays an important role in building countermeasures against the impact of climate change. The actors involved in the agricultural water management are the farmers, the water user associations, and finally, the regional authorities. Water requirements are defined at farm level, the water user associations define the distribution rules to satisfy the water needs in appropriate time and minimum water losses, and, eventually, the Authorities have to monitor and control the entire hydrological system in an integrated approach. The sustainable interplay between these actors is a classic problem of cooperative automation with man in the loop, which involves the interplay of models, experts, data repositories and measurements of very heterogeneous physical variables.

Understanding these processes and finding trustable and sustainable solutions are the challenges the we propose to discuss within the framework of MetroAgriFor in Trento.

Therefore, we propose two special sessions for MetroAgriFor in Trento, the first one (part I) focuses on sensing, models and data integration, and the second one (part II) focuses on infrastructures, platforms and their sustainability.

TOPICS

The topics of interest include, but are not limited to the following subject areas:

- Challenges, opportunities and threads in sensing hydrological processes and water management at different spatial scales
- Calibration, interoperability and trust of new advanced sensing techniques
- Flying and ground sensors in smart agriculture
- Agro-hydrological models for water requirements estimation
- Hydraulic models for water distribution and irrigation scheduling
- Big-data based learning in agriculture
- Integration of data and models, data assimilation

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MORE INFORMATION



SPECIAL SESSION #8

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