



UNIVERSITÀ  
DEGLI STUDI  
FIRENZE

**DAGRI**  
DEPARTMENT OF  
AGRICULTURE, FOOD  
ENVIRONMENT AND FORESTRY

## Catchment Hydrology Day

University of Florence, DAGRI Department,  
Aula Magna, piazzale delle Cascine 18, Florence  
Tuesday 12 November 2019

### Program

11:00 - 11:15 Welcome

**Francesco FERRINI** (President of the School of Agriculture, Univ. Florence), **Simone ORLANDINI** (Dean of the DAGRI Dept., Univ. Florence), Daniele Penna (Univ. Florence).

11:15 - 12:55 First block of oral presentations:

**Christian MASSARI and IRPI-Hydrology Team** (CNR-IRPI Perugia): *Can we predict runoff without ground-based observations? Limits and potential of remote sensing based approaches to catchment hydrology.*

**Luca BROCCA and IRPI-Hydrology Team** (CNR-IRPI Perugia): *Role of remote sensing for hydrological processes understanding at the catchment scale.*

**Fabio CASTELLI, Ercolani G.** (Univ. Florence): *Runoff patterns estimation from real-time assimilation of streamflow and satellite data.*

**Stefano FERRARIS, Canone D., Previati M. Gisolo D., Baneschi I., Celi L., Provenzale A.** (Univ. Turin; Technical Univ. Turin; CNR-IGG Pisa): *Grassland actual evapotranspiration at the Nivolet site (2600 m asl).*

**Giacomo BERTOLDI, Niedrist G., Zandonai A., Della Chiesa S., Klotz J., Obojes N., Fontana V., Engel M, Penna D., Comiti F., Tappeiner U.** (EURAC Research, Bozen-Bolzano; Free Univ. Bozen-Bolzano; Univ. Florence; Univ. Innsbruck): *The alpine Long Term Socio-Ecological Research Site IT25: Val Mazia/Matschertal - Italy: experiences and opportunities for catchment hydrology.*

\***Nicola BRESSAN, Massari C., Domenighetti A., Bertoldi G.** (Univ. Bologna; CNR-IRPI Perugia; EURAC Research, Bozen-Bolzano); *Spatial and temporal analysis of soil moisture patterns in an Alpine catchment.*

\***Francesca MANCA DI VILLAHERMOSA, Verdone M., Errico A., Trucchi P., Preti F., Penna D.** (Univ. Florence): *Spatio-temporal variability of hillslope-scale soil moisture patterns in a mountain Mediterranean catchment.*

**Nunzio ROMANO, Allocca C., Nasta P.** (Univ. Naples): *The Alento Hydrological Observatory: monitoring and modeling activities across scales.*

\***Alessandro ERRICO, Maxwald M., Trucchi P., Preti F.** (Univ. Florence): *Monte Serra post-fire analysis: forest restoration dynamics, erosion control and hydrologic-hydraulic processes.*

**Nicola DURIGHETTO, Vingiani F., Bertassello L. E., Camporese M., Botter G.** (Univ. Padua; Purdue Univ.): *Monitoring and modeling river network dynamics in the Valfredda catchment.*

**Giulio CASTELLI, Bresci E., D'Ambrosio E., Ricci G.F, De Girolamo A.M.** (Univ. Florence; CNR-IRSA; Univ. Bari): *An overview of hydrology and eco-hydrology of temporary streams in Italy.*

12:55 - 14:15 Lunch break.



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14:15 - 15:45 Second block of oral presentations:

**Giorgio CASSIANI, Binley A., Boaga J., Mary B.** (Univ. Padua; Univ. Lancaster): *Hydro-geophysical methods for hillslope and catchment characterization.*

**Matteo CAMPORESE, Azarnivand A., Alaghamand S., Daly E.** (Univ. Padua; Monash Univ.): *Simulating the response of intermittent catchments to varying rainfall frequencies with an integrated surface-subsurface hydrological model.*

**Riccardo RIGON and Bancheri M.L.** (Univ. Trient): *Equivalences and differences between the hydrological dynamical systems of water budget, travel time and tracers concentration and the legacy of models' topology.*

\***Caporali E., Pacetti T., Lompi M.** (Univ. Florence): *Evaluation of mining decommissioning strategies on catchment hydrology.*

\***Rudy ROSSETTO** (Scuola Superiore Sant'Anna): *The LIFE REWAT Managed Aquifer Recharge scheme: a research infrastructure to improve understanding on groundwater hydrodynamics and hydrochemistry.*

**Albina CUOMO, Longobardi A., Guida D.** (Univ. Salerno): *Hydro-geochemical behaviour of a Mediterranean headwater catchment.*

**Michael ENGEL, Comiti F., Penna D., Nadalet R., Dinale R.** (Free Univ. Bozen-Bolzano; Univ. Florence, Autonomous Province Bozen-Bolzano): *Tracer-based insights into high-elevation catchments: the Sulden study area in the Eastern Italian Alps.*

\***Ginevra FABIANI, Klaus J., Penna D.** (Univ. Florence / Luxembourg Institute of Science and Technology): *Where do trees take up water from? An isotope-base study along a hillslope.*

**Giulia ZUECCO, Marchina C., Chiogna G., Bianchini G., Carturan L., Comiti F., Engel M., Natali C., Borga M., Penna D.** (Univ. Padua; Technical Univ. Munich; Univ. Ferrara; Free Univ. Bozen-Bolzano; Univ. Florence): *How to determine the  $\delta^2\text{H}$ - $\delta^{18}\text{O}$  relation? An application of different regression methods to various water types.*

**Anam AMIN, Zuecco G., Geris J., Schwendenmann L., McDonnell, J.J., Borga M., Penna D.** (Univ. Padua; Univ. Aberdeen; Univ. Auckland; GIWS; Univ. Florence): *Global patterns of plant root water uptake from different soil depths.*

15:45 - 16:00 Coffee break

16:00 - 16:30 Seminar by **Jeff MCDONNELL** (Global Institute for Water Security, Univ. Saskatchewan, Canada): *Which future for catchment hydrology?*

16:30 - 17:00 Question time and round table: *Catchment functioning: are we missing anything?*

17:00 Closure of the Day

Moderator: Daniele Penna.

Other participants will attend the Catchment Hydrology Day and the round table, including **Sina ALAGHAMAND** (Monash Univ., Australia), **Giambattista BISCHETTI** (Univ. Milano), **Marco BORGHA** (Univ. Padua), **Francesco COMITI** (Free Univ. Bozen-Bolzano), **Alberto MONTANARI** (Univ. Bologna), and professors and students from Univ. Florence. The day is open to anyone, and no registration fee is required.

Speakers marked with "\*" have a **flash presentation of 5 minutes**, plus 1 minute for question(s). All other speakers have **8-9 minutes**, plus 1 minute for question(s). Please, **strictly respect the scheduled time!**