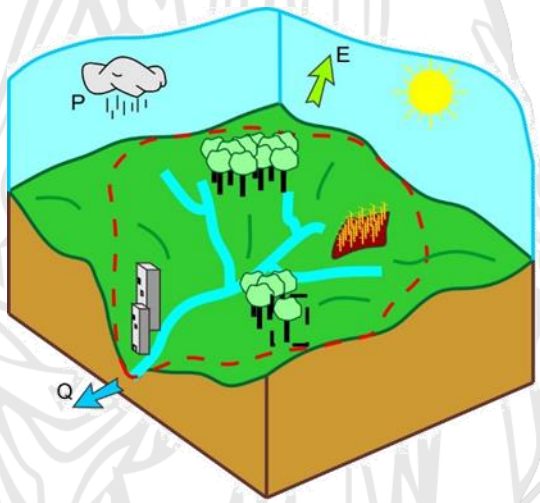
UNIVERSITÀ DEGLI STUDI FIRENZE
DICEA DIPARTIMENTO DI INGEGNERIA CIVILE E AMBIENTALE

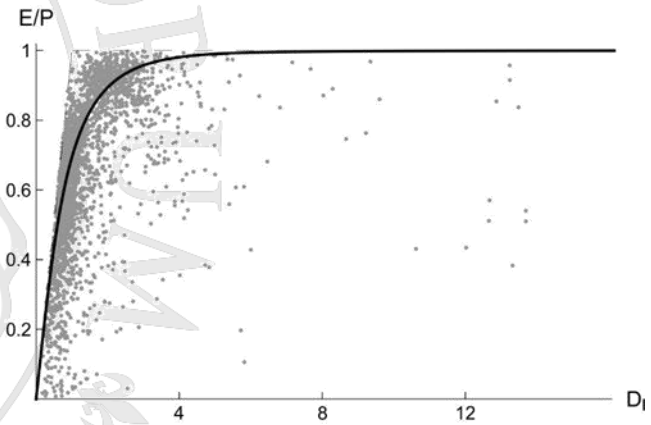
21 October 2019 11.30 – 13.00
Aula 111, Scuola di Ingegneria
Via di S. Marta, 3 - 50139 Firenze

Watershed Hydrology
Second Cycle Degree in GEOENGINEERING

Catchment-scale water balance: Lumped models and hydrologic spaces

The Budyko framework is widely used in hydrology to characterise concisely the long-term water balance of catchments in different climatic conditions. The most popular models used within this framework present limitations associated with the use of non-physical parameters difficult estimate. This talk presents a modification of the Budyko framework that permits the partition of catchments according to climatic conditions and key physical features, such as land cover and soil texture, which are linked to the ability of catchment to store water. All the parameters in this new framework can be estimated from environmental variables that are routinely measured and land use maps. The frameworks are applied and compared using about 400 catchments across the continental USA.





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Dr. Edoardo Daly was awarded his PhD in hydraulics from the Politecnico di Torino, Italy. After a post-doctoral period at Duke University, USA, he joined the Department of Civil Engineering at Monash University in Melbourne, Australia. Dr. Daly's research efforts focus on the eco-hydrology of rural and urban catchments using a suite of experimental methods and modelling tools.

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DAGRI DIPARTIMENTO DI SCIENZE E TECNOLOGIE AGRARIE, ALIMENTARI, AMBIENTALI E FORESTALI

The seminar is organised within the framework of the internalisation program of the **Department of Agriculture, Food, Environment and Forestry (DAGRI)**, Università degli Studi di Firenze (Italy), leveraging on the international agreement between **Monash University (Australia)** and Università degli Studi di Firenze.

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