

# DATA-DRIVEN MODELLING IN WATER ENGINEERING

12 July 13:30 – 17:30

Room BZ D1.01, Universitätsplatz 1 - Piazza  
Università, 1, 39100 Bozen-Bolzano

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## Program of the workshop.

13:30 – 13:40	<b>Maurizio Righetti</b> (University of Bozen-Bolzano) Introduction to the section: Advances in water systems
13:40 – 14:05	<b>Massimiliano Renzi</b> (University of Bozen-Bolzano) Pump-as-Turbines (PaTs) as a solution for WDN pressure control and for energy recovery: data driven models for their performance forecasts
14:05 – 14:30	<b>Martin Oberascher</b> (University of Innsbruck) Ongoing projects on digital water infrastructure
14:30 – 14:55	<b>Robert Sitzenfrei</b> (University of Innsbruck) Complex network theory for water distribution networks
14:55 – 15:20	<b>Ariele Zanfei</b> (University of Bozen-Bolzano) A novel graph neural network model for burst detection in water distribution systems
15:20 – 16:00	BREAK
16:00 – 16:10	<b>Francesco Ravazzolo</b> (University of Bozen-Bolzano) Introduction to the section: forecasting with weather data
16:10 – 16:35	<b>Daniele Dalla Torre</b> (University of Bozen-Bolzano) Era5-Land bias analysis and bias correction methods in the province of Bozen-Bolzano
16:35 – 17:00	<b>Alice Crespi</b> (EURAC) Assessing a Convolutional Neural Network for downscaling climate data in Trentino South Tyrol
17:00 – 17:25	<b>Andrea Menapace</b> (University of Bozen-Bolzano) Short-term streamflow forecasting with SVR model in a small Alpine catchment
17:25 – 17:50	<b>Diego Avesani</b> (University of Trento) Facing computational scalability for hydropower production modelling over large-scale domains