Spring school – Principles of catchment scale hydrological models

Date and location: 15-19 April 2019 at University of Padova (Legnaro, Italy)
Lecturers: Fabrizio Fenicia, Marco dal Molin, Carlo Albert, Dmitri Kavetski, Giulia Zuecco, Daniele Penna

Schedule	Monday, 15 April	Tuesday, 16 April	Wednesday, 17 April	Thursday, 18 April	Friday, 19 April
Theme	The basics	Modelling tools	Into the wild!	Hypothesis testing	Advanced topics
9:30 - 10:20	*Intro to Course*	*Traditional calibration*	Field trip to experimental catchments	*From data to processes understanding*	*Distributed modelling*
10:30 - 11:20	*Hydrological modelling fundamentals*	*Numerics: time stepping & smoothing*		*Intro to flexible models*	*Improving uncertainty characterisation*
11:30 - 12:20	*The model development and application cycle*	*Uncertainty estimation*		*Hypothesis testing in hydrological modelling*	*Learning from hydrogeochemistry*
12:30 - 13:50	Lunch	Lunch	Lunch	Lunch	Lunch
14:00 - 16:20	**Exercise 1** Building a rainfall-runoff model	**Exercise 2** Making a model numerically robust	Field trip to experimental catchments	**Exercise 3** Modelling the fieldtrip catchments	Review of course, Final discussions, Feedback & wrap-up
16:30 - 17:30	Discussion	Discussion		Discussion	Discussion

Notes: 10-15 min breaks between the morning lectures, and a longer 30-min break mid-afternoon.