

# International Workshop on Modelling Hydrodynamics for Water Resources MODWATER19

Universidad de Zaragoza, Spain  
17-21 June 2019

The international workshop on Modelling Hydrodynamics for Water Resources will bring together in Zaragoza a group of scientists specialized on water resources modelling. Modern simulation techniques will be discussed from a problem-oriented perspective. The scope of the presentations will include mathematical formulation, numerical methods, computational techniques and experimental activities oriented to canal and river flows, riparian areas and aquifers. These topics are relevant to hydrology, civil engineering, the environment and agriculture.

**Event webpage:** <http://eventos.unizar.es/go/modwater19>

**Contact:** [modwater19@unizar.es](mailto:modwater19@unizar.es)

## Important dates

15 Apr 2019 deadline for submission of 2 page abstracts

15 May 2019 notification of acceptance

**NOTE:** Students and researchers with interests in these topics are also encouraged to join, even if they do not intend to submit formal contributions.

We hope that the workshop will not only foster scientific exchange but also be a rewarding learning experience.



**Universidad**  
Zaragoza

1542

## LOCAL ORGANISING COMMITTEE

- Pilar García-Navarro, Fluid Mechanics,
- Pilar Brufau, Fluid Mechanics,
- Javier Murillo, Fluid Mechanics

## INVITED SPEAKERS

- Maria Jose Polo, Univ. Cordoba, Spain.
- Damià Vericat, Univ. Lleida, Spain.
- Reinaldo Garcia, Hydronia, USA
- Nery Zapata, EEAD, CSIC, Spain
- Ben Hodges, University of Texas, Austin, USA
- GertJan van Heijst, Univ. Eindhoven, Netherlands
- Sandra Soares-Frazao, UCL, Belgium
- André Paquier, IRSTEA, Lion, France
- Mauro Nalesso, Inter-American Development Bank, USA
- Mario Franca, IHE Delft, Netherlands
- Mario Morales-Hernandez, Univ. Zaragoza, Spain
- Adrian Navas Montilla, Univ. Zaragoza, Spain
- Ramon Batalla, Univ. Lleida, Spain
- Daniel Caviedes, Univ. Cottbus, Germany.

Plenary and short communications will be presented in the following topics:

### A. Basic facts and approaches

Mathematical models for 1D, 2D and 3D free flows.  
Advances in numerical methods and analysis.  
Advances in laboratory experimental techniques  
Advances in field measurement techniques

### B. Water transport

Rainfall-runoff models.  
River flow: Numerical models.  
Soil water flow: Numerical models.  
Control and regulation in channel networks.  
Urban hydrology.

### C. Solute and sediment transport

Numerical techniques for advection-diffusion problems.  
Applications to water body pollution control.  
Modelling sediment transport in natural water courses.  
Ecological modelling.

### D. Decision support systems

Development and application of control techniques.  
High Performance Computation.  
Distributed and decentralised simulation.  
Emergent technologies

