

What is W.A.T.E.R. 2017?

W.A.T.E.R.: Workshop on Advanced measurement Techniques and Experimental Research is a Summer School organized by the Vrije Universiteit Brussel (www.vub.ac.be) and the IAHR Experimental Methods and Instrumentation Committee (EMI) (www.iahr.org) in collaboration with Flanders Marine Institute (www.vliz.be) and Flanders Hydraulics Research (www.watlab.be). This Summer School is focused on experimental methods applied in different hydraulics fields. It combines theoretical sessions and hands-on measurement exercises both in the laboratory and in the field. It is aimed at PhD and Master students as well as technical personnel who are willing to get training in advanced hydraulic measurement techniques.

Topics covered

1. Hydraulic measurement fundamentals
2. Image analysis methods: particle image and particle tracking velocimetry (PIV and PTV)
3. Acoustic Doppler measurement fundamentals
4. Measurement of sediment concentration and fluxes
5. Data processing and data visualization

ECTS Credits

Course certificate will be awarded with 3 ECTS

Lecturers (to be completed)

Margaret Chen (VUB, Belgium)

Massimo Guerrero (UniBo, Italy)

Rui Aleixo (UniBo, Italy)

Rui Ferreira (IST, Portugal)

An Ruidong (USichuan, China)

Venue

Flanders Marine Institute (VLIZ), at Oostende.
North Sea on board of the Research Vessel (RV)
Simon Stevin

Oostende

Oostende is a coast municipality in Belgium located in the province of West-Flanders.



How to arrive

Belgium is located in the heart of Europe and is well served by many airline companies.

From Brussels national airport: Trains from Brussels airport to Oostende take about 2 hours, and run several times each hour.

From Brussels South Charleroi airport: shuttles connect Brussels Charleroi South to Brussels. From Brussels, several trains to Oostende depart each hour.

More information can be found in the Summer School website: watersummerschool.wordpress.com

For more information

[Professor Dr. ir. M. Chen](#)

Vrije Universiteit Brussel

Hydrology and Hydraulic Engineering

[R. Aleixo \(EMI chair\)](#)

University of Bologna

Interdepartmental Centre for Industrial Research in Building and Construction - Fluid Dynamics Unit

Workshop on Advanced measurement Techniques and Experimental Research

W.A.T.E.R. 2017

A hands on experimental research in Hydraulics

2nd - 6th October 2017

Oostende, Belgium

Organized by

Vrije Universiteit Brussel

IAHR – Experimental Methods and Instrumentation Committee

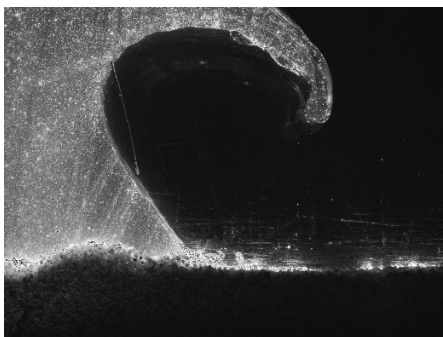


A hands-on experimental approach

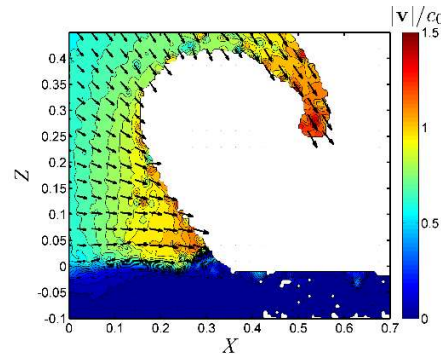


The W.A.T.E.R. Summer School is aimed to provide training of different measurement techniques used in hydraulics considering both laboratory and field environments. To achieve this goal a training program consisting in both technique fundamentals and their applications is presented. The participants will have the opportunity to perform measurements of different physical variables (e.g. turbulence, velocity profiles, bottom topography, sediment flux, etc.) using state of the art techniques. The W.A.T.E.R. Summer School is also a meeting point of young researchers to foster the exchange and cooperation between different institutions, and at the same time to provide the participants with an international research environment.

Laboratory Measurements



Laboratory measurements will include the application of imaging based techniques such as PIV and PTV.



The W.A.T.E.R. Summer School will also include a Data Processing and Data Visualization course.

Field Measurements

The field measurements will be carried out on the North Sea, on board of the coastal RV Simon Stevin. All the participants will have the opportunity to go on board.



The RV Simon Stevin is a multidisciplinary research vessel. It is equipped with various sampling equipment as well as sophisticated sonar technology for flow and sediment measurements as well as bed characterization.

(<http://www.vliz.be/en/rv-simon-stevin>).

How to apply

Applicants should submit a short motivation letter (max 1 page) and a brief CV to rui.aleixo@unibo.it. Please visit the Summer School website for details. **To maximize each participant hands-on opportunity the number of attendees is limited to 21. The registration will be closed when the maximum number of attendees is reached.**

Key dates

Early application (reduced fees)

Application deadline: June 16th

Notification of acceptance: June 19th

Early registration: June 19th – July 16th

Late application (normal fees)

Application open until: July 16th

Notification of acceptance: July 18th

Late registration: July 19th – August 12th

Fees

	Early registration	Late registration
Students	€ 800	€ 900
IAHR member	€ 850	€ 950
Non-IAHR member	€ 900	€ 1000

Fees include

Accommodation, coffee-breaks, breakfast, lunch, Summer School dinner, course materials, access to laboratory, technical visits on board of the research vessel and social program.

Fees do not include

Registration fees do not cover your air-tickets and fares in Belgium to and from the city of Oostende.