What is W.A.T.E.R. 2024?

W.A.T.E.R.: Workshop on Advanced measurement Techniques and Experimental Research is a Summer School started in 2016 by the Vrije Universiteit Brussel (www.vub.be) and the IAHR Experimental Methods and Instrumentation Committee (EMI) (www.iahr.org). The 8th edition will be held in the Manufacture des Tabacs – Laboratoire ICube, Strasbourg, France from July 1 to July 5, 2024. This Summer School is focused on experimental methods applied in different hydraulics fields. It combines theoretical sessions and hands-on measurement exercises in the laboratory. It is aimed at PhD and Master students as well as practitioners who are willing to get training in advanced hydraulic measurement techniques.

Topics covered

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

ECTS Credits

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Course certificate will be awarded with 5 ECTS.

Confirmed contributors

Rui Aleixo (IBW, Poland) Marie Burckbuchler (Ubertone, France) Isabelle Charpentier (CNRS, France) Margaret Chen (VUB, Belgium) Rui Ferreira (IST, Portugal) Anne Pallarès (UHA, France) Nils Ruther (TUM, Germany) Philippe Schmitt (CNRS, France)

Venue

Manufacture des Tabacs

Located at 1 Cour des cigarières, Strasbourg, the Fluid Mechanics team of the ICube Laboratory is equipped with state-of-the-art equipment of Laser Doppler Velocimetry, Particle Image Velocimetry, and others.

Strasbourg

Strasbourg is an attractive european city with historical center which offers a large variety of museums and has a rich cultural life (for more information: <u>https://www.visitstrasbourg.fr/</u>).



How to arrive

You can reach Strasbourg by train. The station is about 15 minutes' walk from the city center. It is well served by many French and European lines.

You can reach Strasbourg by air from Strasbourg-Entzheim international airport, located 10km from the city center (A35 motorway, exit 8). It is served up to 4 times an hour by the TER, which links the airport to Strasbourg station in 9 minutes. Strasbourg can easily be reached from other international airports such as Karlsruhe/Baden-Baden, Basel-Mulhouse, Frankfurt Main or Paris CDG.

Once in town, take tramway C (direction Neuhof -Rodolphe Reuss) and get off at the "Gallia" stop, just a few minutes' walk from the Manufacture.

For more information watersummerschool.wordpress.com water.sciencesconf.org Workshop on Advanced measurement Techniques and Experimental Research

W.A.T.E.R. 2024

A hands-on experimental research in Hydraulics

8th Edition

1^{rst} - 5th July 2024

Strasbourg, France

Organized by

Laboratoire ICube

Université de Strasbourg

UBERTONE

Vrije Universiteit Brussel

IAHR – Experimental Methods and Instrumentation Committee



HAUTE-ALSACE

A hands-on experimental approach



The W.A.T.E.R. Summer School is aimed to provide training of different measurement techniques applied in hydraulics considering both laboratory and field environments. To achieve this goal a training program consisting of both technique fundamentals and their applications is presented. The participants will have the opportunity to perform real-time measurements of different physical variables (e.g. turbulence, velocity profiles, sediment flux and concentration, etc.) using state of the art techniques including PIV, PTV and UVP. 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 acoustical techniques such as UVP or ADVP.



Every participant will have the opportunity to perform experiments in different experimental setups, to acquire and process data. Problemsolving orientated sessions are organized for the participants addressing the crucial issues regarding different types of measurements.



A field trip will be organized where the participants will have the opportunity to carry out in natura measurements.



Masterclass sessions are also included whereby each participant will have the opportunity to present and discuss their research with peers and lecturers to share knowledge, experience, and insights.

How to apply

Applicants should send a 1 page CV and a motivation letter (250 words) to <u>anne.pallares@unistra.fr</u> manifesting their interest in participating in the W.A.T.E.R. Summer School **before May 15th 2024**.

To maximize each participant hands-on opportunity the maximum number of attendees is <u>limited to 20</u>. The registration will be closed when the maximum number of attendees is reached.

Key dates

Manifestation of interest dealine: May15th, 2024 Communication of acceptance: May 20th, 2024 Registration payment deadline: June 20th, 2024

Fees

The W.A.T.E.R. Summer School student fee is 400 euros.

	Early	After
	bird	08/06/24
Students	400	500
IAHR member	500	600
Non IAHR member	600	700

Fees include:

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Accommodation, Coffee-breaks, Summer School dinner, course materials, access to laboratory, field and social programs.



ENGEES

Zones Ateliers