Intention

The IREWHS addresses conventional and innovative aspects in the design, construction, operation, monitoring, maintenance and rehabilitation of hydraulic structures. Participants (grand students or young engineers) will present and discuss their research in a friendly environment where constructive feedback will be provided from the scientific committee. Participants will be given the chance to openly discuss how to improve research during round table discussions. Topics of the workshop include:

- Instrumentation and technology in laboratory experiments and field tests
- Intakes and outlets, spillways, energy dissipaters and fishways
- Pressurized and part-full flow in closed conduits
- Two-phase flow, aeration, cavitation, and vibration
- Hydrodynamic loads and fluid-structure interactions
- Environmental and ecological impact of hydraulic structures
- Interaction between sediment transport and structures
- Others (i.e., experimental, theoretical and numerical modeling).

SPONSORS

WORKSHOP VENUE

The venue for the workshop is the U.S. Bureau of Reclamation’s Water Resources Research Laboratory (WRRL) located in Denver, Colorado (USA).

Denver is the capital of Colorado and one of the fastest growing cities in the USA. Often referred to as the “gateway to the Rockies” spectacular mountain activities near the lab are available including hiking & mountain biking. Downtown offers sports, arts, & shopping.

The WRRL has a 6,000 m² indoor laboratory space with up to 10 m of vertical clearance, four 100-150 hp pumps, a high-head pump (200 m), 900 m³ storage reservoir, a low ambient pressure chamber (0.1 atm.), a 20,000 kg weight-based calibration tank, state-of-the-art data acquisition and analysis equipment.

7th International Junior Researcher and Engineering Workshop on Hydraulic Structures
Denver CO, USA
June 25-27, 2019
KEYNOTE SPEAKERS

The Workshop will include lectures by two eminent researchers in the area of hydraulic structures. Keynote speakers will be selected as the workshop date approaches.

Field Trip & Activities

The Workshop will include a day long field trip with visits to one or more of the following attractions:

- Estes Park Power plant
- Rocky Mountain National Park - Lawn Lake dam break site

SAMPLE PROGRAM

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<tr>
<th>Tuesday June 25, 2019</th>
<th>AM</th>
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<tbody>
<tr>
<td></td>
<td>Welcome</td>
<td>Technical Session TS1</td>
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<td>Keynote Lecture 1</td>
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<td>LUNCH</td>
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<td></td>
<td>Technical Session TS2</td>
<td>Roundtable Discussion Forum</td>
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<td>Tour of BOR Hydraulics Lab</td>
<td>Workshop Dinner</td>
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<th>Wednesday June 26, 2019</th>
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<tr>
<td></td>
<td>Keynote Lecture 2</td>
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<td></td>
<td>Technical Session TS3</td>
<td>Roundtable Discussion Forum</td>
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<td>LUNCH</td>
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<td>Technical Session TS4</td>
<td>Concrete Cylinder Break</td>
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<td>Workshop Dinner</td>
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<th>Thursday June 27, 2019</th>
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<tr>
<td></td>
<td>Technical Tour/Site Visits</td>
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IAHR Hydraulic Structures Committee

Scientific
- Daniel Bung - Chair – (Germany)
- Sebastien Erpicum – Vice Chair – (Belgium)
- Blake Tullis - Past Chair – (USA)
- Brian Crookston - Member – (USA)
- Michele Palermo - Member – (Italy)
- Mario Oertel - Member – (Germany)
- Rita Carvalho - Member – (Portugal)
- Stefan Felder - Member – (Australia)

Organizing
- Bryan Heiner - bheiner@usbr.gov
- Josh Mortensen - jmortensen@usbr.gov
- Angela Medina - amedina@usbr.gov
- Annette Vigil - avigil@usbr.gov

Registration: Is estimated at $400 per attendee and will include breaks and lunches each day and at least one dinner, field trip, attendance, and materials. More details on dates & registration can be found at [https://www.usbr.gov/international/seminars.html](https://www.usbr.gov/international/seminars.html).

Important Dates: Abstracts due Feb 10, 2019 [https://goo.gl/forms/6J3KxZ0okN3dFhGp1](https://goo.gl/forms/6J3KxZ0okN3dFhGp1)