

**ANNOUNCING... CONGRESS SPONSOR RECOGNITION**

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AECOM

**ANNOUNCING... MODERATOR ASSIGNMENTS****MONDAY, AUGUST 10  
TECHNICAL SESSION 1 (TS1)  
10:45 AM – 12:30 PM****A-1 The Mechanics of Water Flow**ROOM: Plaza A  
TOPIC CHAIR: Clifford A. Pugh  
SESSION MODERATOR: Yarko Nino**A-3 Sediment Transport and Fluvial Processes**ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
SESSION MODERATOR: Martin Teal**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**ROOM: Regency C  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Koji Shiono and Vesselina Roussinova**B-1 Flow Conveyance Systems**ROOM: Plaza C  
TOPIC CHAIR: Philip Burgi  
SESSION MODERATOR: Clifford A. Pugh**B-2 Water Control and Hydraulic Structures**ROOM: Regency D  
TOPIC CHAIR & MODERATOR: Philip Burgi**C-1 Eco-hydraulics**ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATORS: Chris Katopodis and John Williams**E-1 Observational Data Models**ROOM: Plaza B  
TOPIC CHAIR: Marian Muste  
MODERATORS: Catherine Wilson and Young-oh Kim**SPECIAL SEMINAR S-2 Smoothed Particle Hydrodynamics Method**ROOM: Regency F  
TOPIC CHAIR: Clifford A. Pugh  
SEMINAR CHAIRS and MODERATORS: Damien Violeau and Alexandre Tartakovsky**SPECIAL SEMINAR S-7 Climate Change**ROOM: Georgia A  
TOPIC CHAIR: Wayne C. Huber  
SEMINAR CHAIR and MODERATOR: Toshi Kojiri**MONDAY, AUGUST 10  
TECHNICAL SESSION 2 (TS2)  
2:00 – 3:45 PM****A-1 The Mechanics of Water Flow**ROOM: Plaza A  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Thorsten Stoesser**A-3 Sediment Transport and Fluvial Processes**ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Thanos Papanicolaou**A-4 Numerical Modeling**ROOM: Regency F  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Pawel Rowinski**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**ROOM: Regency C  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: David Admiraal and Jerome LeCoz**B-2 Water Control and Hydraulic Structures**ROOM: Regency D  
TOPIC CHAIR: Philip Burgi  
MODERATORS: Blake Tullie and Jorge Matos**C-1 Eco-hydraulics**ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATOR: Rollin Hotchkiss**C-5 Climate Influences on Water Flow in Watersheds**ROOM: Georgia A  
TOPIC CHAIR: Wayne C. Huber  
MODERATOR: Slobodan Simonovic**E-1 Observational Data Models**ROOM: Plaza B  
TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
MODERATORS: Catherine Wilson and Young-oh Kim**SPECIAL SEMINAR S-3 Experimental Research around the World, organized by Euro-HydraLab**ROOM: Plaza C  
SEMINAR CHAIR: Simone van Schijndel  
MODERATORS: Simone van Schijndel and Lynn Frostick**MONDAY, AUGUST 10  
TECHNICAL SESSION 3 (TS3)  
4:15 – 6:00 PM****A-1 The Mechanics of Water Flow**ROOM: Plaza A  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: David Zhu**A-3 Sediment Transport and Fluvial Processes**ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: André Paquier**A-4 Numerical Modeling**ROOM: Regency F  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Yakun Guo**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**ROOM: Regency C  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Jonathan Czuba and Shoji Okada**B-2 Water Control and Hydraulic Structures**ROOM: Regency D  
TOPIC CHAIR: Philip Burgi  
MODERATORS: Kevin Nielsen and Cristobal Mateos**C-1 Eco-hydraulics**ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATORS: Thom Hardy and Brent Mefford**C-5 Climate Influences on Water Flow in Watersheds**ROOM: Georgia A  
TOPIC CHAIR: Wayne C. Huber  
MODERATOR: Philippe Gourbesville**E-2 Multi-process, Data-driven Modeling**ROOM: Plaza B  
TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
MODERATOR: Francois Antil**SPECIAL SEMINAR S-3, Experimental Research around the World, organized by Euro-HydraLab**ROOM: Plaza C  
SPECIAL SEMINAR TOPIC CHAIR: Simone van Schijndel  
MODERATOR: Peter Davies

## ANNOUNCING... MODERATOR ASSIGNMENTS

**TUESDAY, AUGUST 11  
TECHNICAL SESSION 4 (TS4)  
8:00 – 9:50 PM**

**A-1 The Mechanics of Water Flow**

ROOM: Plaza A  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Antonio Cardoso and Yee Meng Chiew

**A-3 Sediment Transport and Fluvial Processes**

ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Brett Eaton

**A-4 Numerical Modeling**

ROOM: Regency F  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Mustafa Altinakar

**A-5 Laboratory Experiments, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C & D  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Heather Haynes and Ana Margarita Ricardo

**B-1 Flow Conveyance Systems**

ROOM: Plaza C  
TOPIC CHAIR: Phillip Burgi  
MODERATOR: Helena Ramos and Mark Tachie

**C-1 Eco-Hydraulics**

ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATORS: John Williams and Paul S. Kemp

**C-5 Climate Influences on Water Flow in Watersheds**

ROOM: Georgia A  
TOPIC CHAIR: Wayne C. Huber  
MODERATOR: Young-oh Kim

**E-2 Multi-process, Data-driven Modeling**

ROOM: Plaza B  
TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
MODERATORS: Francois Ancill and Barbara J. Lence

**TUESDAY, AUGUST 11  
TECHNICAL SESSION 5 (TS5)  
10:45 AM – 2:30 PM**

**A-1 The Mechanics of Water Flow**

ROOM: Plaza A  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Terry Sturm

**A-3 Sediment Transport and Fluvial Processes**

ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Jeff Bradley

**A-4 Numerical Modeling**

ROOM: Regency F  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Iehisa Nezu

**A-5 Laboratory Experiments, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Vlad Nikora and Harvey Bootsma

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency D  
TOPIC CHAIR: Phillip Burgi  
MODERATORS: Stefano Pagliara and Ray Walton

**B-3 Hydraulic Machinery for Water and Power Delivery**

ROOM: Georgia A  
TOPIC CHAIR: Phillip Burgi  
MODERATOR: Francois Avellan

**C-1 Eco-hydraulics**

ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATORS: Antonio Pinheiro and George Constantinescu

**E-2 Multi-process, Data-driven Modeling**

ROOM: Plaza B  
TOPIC CHAIR: Barbara J. Lence  
MODERATOR: Francois Ancill

**SPECIAL SEMINAR S-8 Marine Current Power**

ROOM: Plaza C  
TOPIC CHAIRS: David Kriebel and Michael Quick  
SPECIAL SEMINAR TOPIC CHAIRS AND MODERATORS:  
Albert Ruprecht and Roger Falconer

**TUESDAY, AUGUST 11  
TECHNICAL SESSION 6 (TS6)  
2:00 – 3:45 PM**

**A-1 The Mechanics of Water Flow**

ROOM: Plaza A  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Greg Lawrence

**A-3 Sediment Transport and Fluvial Processes**

ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Stephen Coleman

**A-4 Numerical Modeling**

ROOM: Regency F  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Cristián Escauriaza

**A-5 Laboratory Experiments, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Andre Roy and Bruce MacVicar

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency D  
TOPIC CHAIR: Phillip Burgi  
MODERATOR: Jonathan Burgi

**B-4 Urban Drainage and Flood Protection**

ROOM: Georgia A  
TOPIC CHAIR: Phillip Burgi  
MODERATORS: Scott Struck and Jiri Marsalek

**C-1 Eco-hydraulics**

ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATORS: Chris Katopodis and Thom Hardy

**D-1 Advances in Understanding, Modeling, and Forecasting Waves**

ROOM: Plaza C  
TOPIC CHAIRS: David Kriebel and Michael Quick  
MODERATOR: Ramon Gutierrez-Serret

**E-3 Digital Watersheds and Coasts**

ROOM: Plaza B  
TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
MODERATORS: Tim Whiteaker and Lawrence Martz

## ANNOUNCING... MODERATOR ASSIGNMENTS

**TUESDAY, AUGUST 11**  
**TECHNICAL SESSION 7 (TS7)**  
**4:15 – 6:00 PM**

**A-3 Sediment Transport and Fluvial Processes**

ROOM: Regency E  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Shoji Fukuoka

**A-4 Numerical Modeling**

ROOM: Regency F  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Jennifer Duan

**A-5 Laboratory Experiments, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATORS: Volker Weitbrecht and Alan Cuthbertson

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency D  
 TOPIC CHAIR: Philip Burgi  
 MODERATOR: Hubert Chanson

**B-4 Urban Drainage and Flood Protection**

ROOM: Georgia A  
 TOPIC CHAIR: Philip Burgi  
 MODERATORS: Yiping Guo and Dave Froehlich

**C-1 Eco-hydraulics**

ROOM: Georgia B  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: Stefan Schmutz and Eva Enders

**D-1 Advances in Understanding, Modeling, and Forecasting Waves**

ROOM: Plaza C  
 TOPIC CHAIRS: David Kriebel and Michael Quick  
 MODERATOR: Constantine Memos

**E-3 Digital Watersheds and Coasts**

ROOM: Plaza B  
 TOPIC CHAIRS: Marian Muste and Barbara Lence  
 MODERATORS: Tim Whiteaker and Lawrence Martz

**F-1 Education/History, Fundamentals, Experiments, Modeling, Instrumentation**

ROOM: Plaza A  
 TOPIC CHAIR: Robert Ettema  
 MODERATORS: Reinhardt Hinkelmann and Frank Molkenhain

**WEDNESDAY, AUGUST 12**  
**TECHNICAL SESSION 8 (TS8)**  
**8:00 – 9:50 AM**

**A-3 Sediment Transport and Fluvial Processes**

ROOM: Regency E  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Gerald Krapesch

**A-4 Numerical Modeling**

ROOM: Regency F  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Haitham Gahmry

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C/D  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATORS: Tracy Vermeyen and Vesselina Roussinova

**C-2 Groundwater Hydraulics**

ROOM: Georgia B  
 TOPIC CHAIR AND MODERATOR: Bruce Lytle

**C-4 Waterway Restoration**

ROOM: Georgia A  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: Donald Carpenter and Darren Shepherd

**D-2 Coastal Processes and Coastal Morphologies**

ROOM: Plaza C  
 TOPIC CHAIRS: David Kriebel and Michael Quick  
 MODERATOR: Francisco Pinto

**E-5 Policy and Institutional Issues**

ROOM: Plaza B  
 TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
 MODERATORS: Jonathan Bulkley

**KE John F. Kennedy Student Paper Competition**

ROOM: Plaza A  
 TOPIC CHAIRS AND MODERATORS: Rollin Hotchkiss and Peter Goodwin

**WEDNESDAY, AUGUST 12**  
**TECHNICAL SESSION 9 (TS9)**  
**10:45 AM – 12:30 PM**

**A-3 Sediment Transport and Fluvial Processes**

ROOM: Regency E  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Yves Zech

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Alex Hay and Koen Blanckaert

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency D  
 TOPIC CHAIR: Philip Burgi  
 MODERATOR: Corrado Gisonni

**C-2 Groundwater Hydraulics**

ROOM: Georgia B  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATOR: Nadim Coptly

**C-4 Waterway Restoration**

ROOM: Georgia A  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: Jim Kells and Dudley Reiser

**D-2 Coastal Processes and Coastal Morphologies**

ROOM: Plaza C  
 TOPIC CHAIRS: David Kriebel and Michael Quick  
 MODERATORS: Nabil Ismail and Constantine Memos

**F-2 Hydroinformatics Education, Social/Economic Impacts**

ROOM: Plaza B  
 TOPIC CHAIR: Robert Ettema  
 MODERATOR: Ionna Popescu

**KE John F. Kennedy Student Paper Competition**

ROOM: Plaza A  
 TOPIC CHAIRS AND MODERATORS: Marian Muste and Reinhard Hinkelmann

**SPECIAL SEMINAR S-4 Advanced Turbulence Modeling for Flow and Transport Processes in River Engineering,**

ROOM: Regency F  
 SPECIAL SEMINAR TOPIC CHAIR and MODERATOR: George Constantinescu

## ANNOUNCING... MODERATOR ASSIGNMENTS

**WEDNESDAY, AUGUST 12  
TECHNICAL SESSION 10 (TS10)  
2:00 – 3:45 PM**
**A-3 Sediment Transport and Fluvial Processes**

ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Carlos Alonso

**A-4 Numerical Modeling**

ROOM: Regency F  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Peter Steffler

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Cristiana di Cristo and Jose Mier

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency D  
TOPIC CHAIR: Philip Burgi  
MODERATOR: Helmut Knoblauch

**C-2 Groundwater Hydraulics**

ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATOR: Bruce Lytle

**C-4 Waterway Restoration**

ROOM: Georgia A  
TOPIC CHAIR: Wayne C. Huber  
MODERATOR: Chris Katopodis and John Parish

**D-3 Estuary Hydraulics**

ROOM: Plaza C  
TOPIC CHAIRS: David Kriebel and Michael Quick  
MODERATOR: Eric Valentine

**E-4 Decision-support Systems**

ROOM: Plaza B  
TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
MODERATOR: Arthur Mynett

**KE John F. Kennedy Student Paper Competition**

ROOM: Plaza A  
TOPIC CHAIR: Rollin Hotchkiss  
MODERATORS: Ana Maria da Silva and Robert Ettema

**WEDNESDAY, AUGUST 12  
TECHNICAL SESSION 11 (TS11)  
4:15 – 6:00 PM**
**A-3 Sediment Transport and Fluvial Processes**

ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Bruce Melville

**A-4 Numerical Modeling**

ROOM: Regency F  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Colin Rennie

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Ian Guymer and Bela Sokoray-Varga

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency D  
TOPIC CHAIR: Philip Burgi  
MODERATORS: Tatsuaki Nakato and Jun Guo

**C-2 Groundwater Hydraulics**

ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATOR: Stephen Rees

**C-4 Waterway Restoration**

ROOM: Georgia A  
TOPIC CHAIR: Wayne C. Huber  
MODERATORS: Rob Millar and Brent Mefford

**D-3 Estuary Hydraulics**

ROOM: Plaza C  
TOPIC CHAIRS: David Kriebel and Michael Quick  
MODERATOR: Hubert Chanson

**E-4 Decision-support Systems**

ROOM: Plaza B  
TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
MODERATOR: Young-oh Kim

**F-3 History: Engineering Applications & People**

ROOM: Plaza A  
TOPIC CHAIR: Robert Ettema  
MODERATOR: Frank Molkenhain

**THURSDAY, AUGUST 13  
TECHNICAL SESSION 12 (TS12)  
8:00 – 9:50 AM**
**A-2 Multi-phase Flows**

ROOM: Regency E  
TOPIC CHAIR: Clifford A. Pugh  
MODERATOR: Jorge Matos

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C/D  
TOPIC CHAIR: Clifford A. Pugh  
MODERATORS: Joe Aberle and Andre Paquier

**B-4 Urban Drainage and Flood Protection**

ROOM: Georgia A  
TOPIC CHAIR: Philip Burgi  
MODERATORS: Scott Struck and Jim Heaney

**C-1 Eco-hydraulics**

ROOM: Georgia B  
TOPIC CHAIR: Wayne C. Huber  
MODERATORS: John Parish and Kerry Mazurek

**C-3 Lake and Reservoir Hydraulics**

ROOM: Regency F  
TOPIC CHAIR: Wayne C. Huber  
MODERATOR: Greg Lawrence

**D-3 Estuary Hydraulics**

ROOM: Plaza C  
TOPIC CHAIRS: David Kriebel and Michael Quick  
MODERATOR: Scott Hagen

**E-4 Decision-support Systems**

ROOM: Plaza B  
TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
MODERATOR: Philippe Gourbesville

**SPECIAL SEMINAR S-1 Sediment Transport at Hydraulic Jumps,**

ROOM: Plaza A  
SPECIAL SEMINAR TOPIC CHAIR: Robert Macdonald  
MODERATOR: Matthieu Cartigny

## ANNOUNCING... MODERATOR ASSIGNMENTS

**THURSDAY, AUGUST 13**  
**TECHNICAL SESSION 13 (TS13)**  
**10:45 AM – 12:30 PM**

**A-2 Multi-phase Flows**

ROOM: Regency E  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Youchi Yasuda

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATORS: Andreas Ditttrich and James Cooper

**B-1 Flow Conveyance Systems**

ROOM: Regency D  
 TOPIC CHAIR: Philip Burgi  
 MODERATOR: Warren Frizell

**B-4 Urban Drainage and Flood Protection**

ROOM: Georgia A  
 TOPIC CHAIR: Philip Burgi  
 MODERATORS: Michael Barrett and Bill James

**C-1 Eco-hydraulics**

ROOM: Georgia B  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: Kerry Mazurek and Rob Millar

**C-3 Lake and Reservoir Hydraulics**

ROOM: Regency F  
 TOPIC CHAIR AND MODERATOR: Roger Pieters

**D-4 Wave Loads and the Performance of Coastal and Offshore Structures**

ROOM: Plaza C  
 TOPIC CHAIRS: David Kriebel and Michael Quick  
 MODERATOR: Michael Quick

**E-4 Decision-support Systems**

ROOM: Lord Byron  
 TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
 MODERATOR: Tarana Solaiman

**SPECIAL SEMINAR S-1 Sediment Transport at Hydraulic Jumps**

ROOM: Plaza B  
 TOPIC CHAIR: Clifford A. Pugh  
 SPECIAL SEMINAR TOPIC CHAIR: Robert Macdonald  
 MODERATOR: Robert Macdonald

**THURSDAY, AUGUST 13**  
**TECHNICAL SESSION 14 (TS14)**  
**2:00 – 3:45 PM**

**A-4 Numerical Modeling**

ROOM: Regency D  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: George Constantinescu

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATORS: Colin Rennie and Clifford A. Pugh

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency E  
 TOPIC CHAIR: Philip Burgi  
 MODERATOR: Willi Hager

**C-1 Eco-hydraulics**

ROOM: Georgia B  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: Stephan Schmutz and Paul S. Kemp

**C-3 Lake and Reservoir Hydraulics**

ROOM: Regency F  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATOR: Joseph H.W. Lee

**C-4 Waterway Restoration**

ROOM: Georgia A  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: Rollin Hotchkiss and Brian Hughes

**D-5 Protection of Coastal Cities**

ROOM: Plaza C  
 TOPIC CHAIRS: David Kriebel and Michael Quick  
 MODERATOR: Andrew Cornett

**E-4 Decision-Support Systems**

ROOM: Plaza B  
 TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
 MODERATOR: Hyung-il Eum

**SPECIAL SEMINAR S-5 Fast Transients**

ROOM: Plaza A  
 TOPIC CHAIR: Philip Burgi  
 SPECIAL SEMINAR TOPIC CHAIR: Mohamed Ghidaoui  
 MODERATORS: Mohamed Ghidaoui and Bryan Karney

**THURSDAY, AUGUST 13**  
**TECHNICAL SESSION 15 (TS15)**  
**4:15 – 6:00 PM**

**A-4 Numerical Modeling**

ROOM: Regency D  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Larry Weber

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATORS: Alissio Radice and Jeffery Marr

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency E  
 TOPIC CHAIR: Philip Burgi  
 MODERATORS: Adrian Chantler and Fabian Bobardelli

**B-5 Wastewater Management**

ROOM: Regency F  
 TOPIC CHAIR: Philip Burgi  
 MODERATOR: Brian Whalen

**C-1 Eco-hydraulics**

ROOM: Georgia B  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: Femi Ade and Jim Kells

**C-4 Waterway Restoration**

ROOM: Georgia A  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: George Constantinescu and Barry Chilibeck

**D-5 Protection of Coastal Cities**

ROOM: Plaza C  
 TOPIC CHAIRS: David Kriebel and Michael Quick  
 MODERATORS: Andrew Cornett and Michael Quick

**E-4 Decision-support Systems**

ROOM: Plaza B  
 TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
 MODERATOR: Dragan Savic

**SPECIAL SEMINAR S-5 Fast Transients**

ROOM: Plaza A  
 SPECIAL SEMINAR TOPIC CHAIR: Mohamed Ghidaoui  
 MODERATOR: Peter Godwin

**ANNOUNCING... MODERATOR ASSIGNMENTS**

**FRIDAY, AUGUST 14, TECHNICAL SESSION 16 (TS16), 8:00 – 10:00 AM**

**A-4 Numerical Modeling**

ROOM: Regency D  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATOR: Roger Falconer

**A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

ROOM: Regency C  
 TOPIC CHAIR: Clifford A. Pugh  
 MODERATORS: Chris Rehmann and David Milan

**B-2 Water Control and Hydraulic Structures**

ROOM: Regency E  
 TOPIC CHAIR: Philip Burgi  
 MODERATORS: Arturo Marcano

**B-5 Wastewater Management**

ROOM: Regency F  
 TOPIC CHAIR: Philip Burgi  
 MODERATOR: Elizabeth Fassman

**C-4 Waterway Restoration**

ROOM: Georgia A  
 TOPIC CHAIR: Wayne C. Huber  
 MODERATORS: Efrem Teklemariam and Haitham Ghamry

**D-4 Wave Loads and the Performance of Coastal and Offshore Structures**

ROOM: Plaza C  
 TOPIC CHAIRS: David Kriebel and Michael Quick  
 MODERATOR: Torsten Schlurman

**E-4 Decision-support Systems**

ROOM: Plaza B  
 TOPIC CHAIRS: Marian Muste and Barbara J. Lence  
 MODERATOR: Barbara J. Lence

**SPECIAL SEMINAR S-6 Applied Hydrology**

ROOM: Plaza A  
 SPECIAL SEMINAR TOPIC CHAIR: Roberto Ranzi  
 MODERATOR: David Axworthy

**SPECIAL SEMINAR S-9 Beach Drainage**

ROOM: Georgia B  
 SPECIAL SEMINAR TOPIC CHAIR AND MODERATOR: Diego Vicinanza

**KEYNOTE SPEAKER SESSION MODERATORS**

**MONDAY, AUGUST 10  
 8:00 – 10:15 AM**

**Climate-process Issues and Their Impacts on Water Availability**  
 Dr. Timothy Killeen, Assistant Director for the Geosciences, National Science Foundation (NSF), USA  
 MODERATORS: Jeff Bradley and Robert Ettema

**The Smoothed Particle Hydrodynamics Method**  
 Dr. J.J. Monaghan, Professor, Monash University, Australia  
 MODERATOR: Nobuyuki Tamai

**TUESDAY, AUGUST 11  
 9:50 – 10:30 AM**

**Canadian Experiences in Climate-change Dialogue between Policy and Science**  
 Dr. Slobodan Simonovic, Professor, University of Western Ontario, Canada  
 MODERATOR: Barbara J. Lence

**WEDNESDAY, AUGUST 12  
 9:50 – 10:30 AM**

**Entering the Second Century of Canada – U.S. Transboundary Water Management – The International Joint Commission and Its International Watersheds Initiative**  
 Irene B. Brooks, U.S. Section Chair, International Joint Commission  
 MODERATOR: Philip Burgi

**THURSDAY, AUGUST 13  
 9:50 – 10:30 AM**

**Expansion of the Panama Canal**  
 Jhan Schmitz, Senior Vice President, CH2M Hill and Program Manager, Panama Canal Expansion Program, USA  
 MODERATOR: Robert Ettema

**FRIDAY, AUGUST 14  
 10:30 AM – 12:30 PM**

**IAHR Arthur T. Ippen Lecture**  
 Yarko Niño, Associate Professor, Universidad de Chile, Department of Civil Engineering, Santiago, Chile  
 MODERATOR: Peter Goodwin

**FRIDAY, AUGUST 14  
 10:30 AM – 12:30 PM**

**ASCE-EWRI Hunter Rouse Hydraulic Engineering Lecture**  
 Joseph Hun-wei Lee, IAHR Vice President, Pro-Vice Chancellor and Redmond Chair of Civil Engineering, The University of Hong Kong, and Director, Croucher Laboratory of Environmental Hydraulics, Hong Kong, China  
 MODERATOR: Clifford A. Pugh

## ANNOUNCING... TECHNICAL PROGRAM UPDATES

## NEW SESSION

**TECHNICAL SESSION 13 (TS13) •  
THURSDAY, AUGUST 13, 10:45 – 12:30 PM**

ROOM: Lord Byron

**E-4 Decision-support Systems**

TOPIC E: Advances in Hydroinformatics for Integrated Watershed and Coast Management

TOPIC CHAIRS: Marian Muste and Barbara J. Lence

MODERATOR: Tarana Solaiman

**Decision Support Systems for Integrated River Basin Management**

Guilherme Lima, Vancouver, BC, CANADA

**Development of KM Application System for Integrated Water and Environment Management in the Haihe Basin**

Yangwen Jia, Zuhao Zhou, Cunwen Niu, Hong Gan, Xiaohui Lei, Ziguo Gan, Beijing, CHINA

**Integrative Risk-based Decision Making Regarding Flood Protection in Entire Catchment Areas**

Nils Huber, Daniel Bachmann, Aachen, GERMANY; Uwe Petry, Bochum, GERMANY; Julia Bless, Aachen, GERMANY; A. Altepost, Aachen, GERMANY; Markus Pahlow, Bochum, GERMANY; Gottfried Lennartz, Aachen, GERMANY; Manfred Romich, Aachen, GERMANY; Jürgen Fries, Wuppertal, GERMANY; Andreas H. Schumann, Bochum, GERMANY; Holger Schüttrumpf, Aachen, GERMANY

**A Water Resources Planning Procedure for Integrated Urban Watershed Management in Korea**

Eun-Sung Chung, Salt Lake City, USA, Kil Seong Lee, Jin-Young Sung, Seoul, KOREA, Yanghoon Song, Cheongju, KOREA

**River Eco-problems and Restoring Approaches by Integrated Water Projects Management and Pollution Control: Challenges and Actions in Huai River Basin**

Jun Xia, Beijing, CHINA, Zhang Yongyong, Beijing, CHINA

NEW ORAL PRESENTATIONS  
W/ EXTENDED SESSION TIME**TECHNICAL SESSION 4 (TS4) •  
TUESDAY, AUGUST 11, 8:00 – 10:20 AM**

ROOM: Regency F

**A-4 Numerical Modeling**

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

TOPIC CHAIR: Clifford A. Pugh

MODERATOR: Mustafa Altinakar

**A Computational Study of Secondary Currents and Wall Shear Stress in Prismatic Channels**

Herve P. Morvan and D.M. Hargreaves, Nottingham, GREAT BRITAIN

**Modeling Unsteady Turbulent Flows in Natural Streams with Complex Hydraulic Structures: Toward the Virtual Streamlab**

Seokkoo Kang, Minneapolis, MN, USA; Iman Borazjani, Minneapolis, MN, USA; Anne Lightbody, Minneapolis, MN, USA; Fotis Sotiropoulos, Minneapolis, MN, USA

## NEW SESSION TIME

**MOVED FROM THURSDAY, AUGUST 13 (TS13) TO  
TECHNICAL SESSION 11 (TS11) •  
WEDNESDAY, AUGUST 12, 4:15 – 6:00 PM**

ROOM: Plaza A

**F-3 History: Engineering Applications & People**

TOPIC F: Education, History, Social/Economic Impacts

TOPIC CHAIR: Robert Ettema

MODERATOR: I. Popescu

**Historical Advance of Chute Aerators**

Willi H. Hager, Zurich, SWITZERLAND; Michael Pfister, Zurich, SWITZERLAND

**Piping of Irrigation Canals through Urban Setting**

Jonathan P. Burgi, Bend, OR, USA

**History of Erosion from Pre-European Settlement to Present and the Historic Effects of Anthropogenic Structures**

Jim Selegean, Detroit, MI, USA

**Water Supply Works in Ancient Mexico City, Origin of a Majestic Civilization**

Carlos A. Gonzalez, Monterrey, MEXICO

**Graduate Education in Hydraulics at the National Autonomous University of México**

Gabriel Echavez, Mexico, MEXICO

**Jean-Baptiste Bélanger, Hydraulic Engineer, Researcher, and Academic**

Hubert Chanson, Brisbane, AUSTRALIA

**POSTERS / On Display All Day / Regency & Plaza Foyers, Balmoral****Harold Kester, a Builder of Hydropower in the American West**

Robert Ettema, Laramie, WY, USA

**HydroEurope and HydroAsia Experiences: Strategy for a Global Hydroinformatic Community**

Philippe Gourbesville, Sophia Antipolis, FRANCE

## WITHDRAWN PRESENTATIONS

**TECHNICAL SESSION 2 (TS2) • MONDAY, AUGUST 10, 2:00 – 3:45 PM****A-5 Laboratory Experiments, Field Studies, Instrumentation, and Hydraulic Modeling**

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

**Mapping River Dynamics with the Electronic Floats Equipped with GPS Receivers**[Chanjoo Lee, Goyang-si, KOREA](#); [Won Kim, Goyang-si, KOREA](#); [Kim Dong Gu, Goyang, KOREA](#); [Hea Eun Lee, Goyang-si, KOREA](#)**TECHNICAL SESSION 4 (TS4) • TUESDAY, AUGUST 11, 8:00 – 9:50 AM****C-5 Climate Influences on Water Flow in Watersheds**

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

**Scenario Planning under Uncertainty Using a Dynamic DSS**[Kathleen O'Neil, Orlando, FL, USA](#)**TECHNICAL SESSION 12 (TS12) • THURSDAY, AUGUST 13, 8:00 – 9:50 AM****S-1 Sediment Transport at Hydraulic Jumps**

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

**A Comparison between Antidune and Step-pool Geometries**[Alain Recking, Saint-Martin d'Hères, FRANCE](#); [Pauline Leduc, Saint-Martin d'Hères, FRANCE](#); [Frederic Liebault, Saint-Martin d'Hères, FRANCE](#)**TECHNICAL SESSION 15 (TS15) • THURSDAY, AUGUST 13, 4:15 – 6:00 PM****C-1 Eco-hydraulics**

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

**Investigation on Roughness Characteristics of Gravel-bed Rivers**[Yong Jeon Kim, Goyang-si, KOREA](#); [Jisung Kim, Goyang-Si, KOREA](#); [Chanjoo Lee, Goyang-si, KOREA](#); [Won Kim, Goyang-si, KOREA](#)

## ANNOUNCING... TECHNICAL PROGRAM UPDATES

### ADDITIONAL ORAL PRESENTATIONS AND AUTHORS

#### TECHNICAL SESSION 2 (TS2) • MONDAY, AUGUST 10, 2:00 – 3:45 PM

ROOM: Georgia A

#### C-5 Climate Influences on Water Flow in Watersheds

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

TOPIC CHAIR: Wayne C. Huber

MODERATOR: Slobodan Simonovic

#### Prediction of Global Sea Surface Wind and Wave Climate Change Based on MRI/JMA GCM

Tomohiro Yasuda, Kyoto, JAPAN; Hajima Mase, Kyoto, JAPAN; [Rie Takada, Kyoto, JAPAN](#); [Soo Youl Kim, Tottori, JAPAN](#); Nobuhito Mori, Kyoto, JAPAN; Yuichiro Oku, Kyoto, JAPAN

#### TECHNICAL SESSION 2 (TS2) • MONDAY, AUGUST 10, 2:00 – 3:45 PM

ROOM: Plaza B

#### E-1 Observational Data Models

TOPIC E: Advances in Hydroinformatics for Integrated Watershed and Coast Management

TOPIC CHAIR: Barbara J. Lence

MODERATOR: Catherine Wilson and Young-oh Kim

#### Establishing Sea Level Anomaly Patterns Using Mutual Information Theory

Raghuraj Keshava Rao, Singapore, SINGAPORE; Vladan Babovic, Singapore, SINGAPORE; [Qoi Seng Keat, Singapore, SINGAPORE](#)

#### TECHNICAL SESSION 3 (TS3) • MONDAY, AUGUST 10, 4:15 – 6:00 PM

ROOM: Georgia A

#### C-5 Climate Influences on Water Flow in Watersheds

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

TOPIC CHAIR: Wayne C. Huber

MODERATOR: Philippe Gourbesville

#### Analysis of Extreme Rainfall Trends in Denmark

Sara Sadri, Waterloo, ON, CANADA; [H. Madsen, Horsholm, DENMARK](#); [P.S. Mikkelsen, Lyngby, DENMARK](#); Donald H. Burn, Waterloo, ON, CANADA

#### TECHNICAL SESSION 4 (TS4) • TUESDAY, AUGUST 11, 8:00 – 9:50 AM

ROOM: Georgia A

#### C-5 Climate Influences on Water Flow in Watersheds

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

TOPIC CHAIR: Wayne C. Huber

MODERATOR: Nick van de Giesen

#### Impacts of Climate Change in Lake Koronia Basin, Greece

[Elpida Kolokytha, Thessaloniki, GREECE](#); [Y. Mylopoulos, Thessaloniki, GREECE](#); Anthoula Nota, Thessaloniki, GREECE

#### TECHNICAL SESSION 5 (TS5) • TUESDAY, AUGUST 11, 10:45 AM – 12:30 PM

ROOM: Georgia A

#### A-5 Laboratory Experiments, Instrumentation, and Hydraulic Modeling (incl. HydraLab Sessions)

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

TOPIC CHAIR: Clifford A. Pugh

MODERATOR: Vlad Nikora and Harvey Bootsma

#### Continuous Measurement of Water Discharge, Temperature, and Salinity in a Tidal Spillway using a Fluvial Tomography System

[Kiyoshi Kawanishi, Higashi-Hiroshima, JAPAN](#)

#### TECHNICAL SESSION 7 (TS7) • TUESDAY, AUGUST 11, 4:15 – 6:00 PM

ROOM: Regency F

#### A-4 Numerical Modeling

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

TOPIC CHAIR: Clifford A. Pugh

MODERATOR: Jennifer Duan

#### CFD Modeling of Drag and Lift of Inundated Bridge Decks

Junke Guo, Omaha, NE, USA; Zhaoding Xie, Falls Church, VA, USA; Kornel Kerenyi, McLean, VA, USA; [Bushra Afzal, McLean, VA, USA](#)

#### TECHNICAL SESSION 7 (TS7) • TUESDAY, AUGUST 11, 4:15 – 6:00 PM

ROOM: Georgia B

#### C-1 Eco-hydraulics

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

TOPIC CHAIR: Wayne C. Huber

MODERATOR: Stefan Schmutz and Eva Enders

#### Accuracy in Flow Regime Alteration Analysis

Giuseppe Viggiani, Rende, ITALY; Giancarlo Principato, Rende, ITALY

#### Evaluation of Fish Physical Habitat Effect by Artificial Change of Streambed Topography

Kukryul Oh Sr., Cheonan-si, KOREA; Sangman Jeong, Kongju-si, KOREA; Jooheon Lee, Guemsan, KOREA; Christabel Jane Rubio, Cheonan-si, KOREA; Kyusung Yeon, Cheonan-si, KOREA

#### Comparison of 2D Hydrodynamic Models in River Reaches of Ecological Importance: Hydro AS-2D and SRH-W

[H.G. Tolossa, Jeffrey Tuhtan, Stuttgart, GERMANY](#); [Matthias Schneider, Vaihingen, GERMANY](#); [Silke Wieprecht, Stuttgart, GERMANY](#)

#### Numerical Investigation of Tidal and River Flow Interaction in the Willamette and Columbia River Tri-Channel System

[Henry Hu, John Thomas Sanford, Raymond Walton](#)

#### Sensitivity of Habitat Suitability Index in Relation to Spatial Resolution of Hydraulic Simulation

Friedrich Schoeberl, Innsbruck, AUSTRIA

#### NEW POSTER / On Display All Day / Regency & Plaza Foyers, Balmoral

#### Estimation of Instream Flow Fish Habitat Using Instream Flow Incremental Methodology (IFIM) for Major Tributaries in Changwon Stream Basin

[Jung Min Kim, Kimhae, KOREA](#); [Young Do Kim, Gimhae, KOREA](#)

## ANNOUNCING... TECHNICAL PROGRAM UPDATES

### ADDITIONAL ORAL PRESENTATIONS AND AUTHORS

#### TECHNICAL SESSION 8 (TS8) • WEDNESDAY, AUGUST 12, 8:00 – 9:50 AM

ROOM: Georgia A

##### **C-4 Waterway Restoration**

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

TOPIC CHAIR: Wayne C. Huber

MODERATOR: Donald Carpenter and Darren Shepherd

##### **Assessing the Effects of Sediment Dynamics on Physical Habitat**

Gustavo Adolfo Mazza de Almeida, Newcastle, AUSTRALIA; [Jose Rodriguez, Newcastle, AUSTRALIA](#)

#### TECHNICAL SESSION 9 (TS9) • WEDNESDAY, AUGUST 12, 10:45 AM – 12:30 PM

ROOM: Plaza B

##### **F-2 Hydroinformatics**

TOPIC F: Education, History, Social/Economic Impacts

TOPIC CHAIR: Robert Ettema

MODERATORS: F. Molkenhain and M. Mossa

##### **HydroEurope and HydroAsia Experiences: Strategy for a Global Hydroinformatic Community**

[Philippe Gourbesville, Sophia Antipolis, Montpellier, FRANCE](#)

#### TECHNICAL SESSION 11 (TS11) • WEDNESDAY, AUGUST 12, 4:15 – 6:00 PM

ROOM: Regency C

##### **A-5 Laboratory Experiments, Instrumentation, and Hydraulic Modeling**

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

TOPIC CHAIR: Clifford A. Pugh

MODERATOR: I. Guymer and B. Sokoray-Varga

MOVED TO ORAL PRESENTATION:

##### **Discharge and Other Hydraulic Measurements for Characterizing the Hydraulics of Lower Congo River, July 2008**

Kevin Oberg, Urbana, IL, USA; Ryan Jackson, Urbana, IL, USA

#### TECHNICAL SESSION 13 (TS13) • THURSDAY, AUGUST 13, 10:45 AM – 12:30 PM

Room: Regency E

##### **A-2 Multi-phase Flows**

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

TOPIC CHAIR: Clifford A. Pugh

MODERATOR: Youchi Yasuda

##### **On the Modeling of Gas Diffusion by Turbulence in Hydraulic Jumps**

Ivo Pothof, Francois Clemens, Delft, THE NETHERLANDS

#### TECHNICAL SESSION 14 (TS14) • THURSDAY, AUGUST 13, 2:00 – 3:45 PM

Room: Plaza A

##### **S-5 Fast Transients, Special Seminar linked to B1, Fluid Transients in Closed and Open Channels**

TOPIC B: Water Engineering in Support of Build Environments

TOPIC CHAIR: Philip Burgi

SPECIAL SEMINAR TOPIC CHAIR: Mohamed Ghidaoui

MODERATOR: Mohamed Ghidaoui and Bryan Karney

##### **Wall Shear Stresses in Decelerating Pipe Flows**

[Shuisheng He, Aberdeen, SCOTLAND](#); [C. Ariyaratne, Aberdeen, SCOTLAND](#); [A.E. Vardy, Dundee, SCOTLAND](#)

#### TECHNICAL SESSION 16 (TS16) • FRIDAY, AUGUST 14, 8:00 – 10:00 AM

ROOM: Plaza C

##### **D-4 Wave Loads and the Performance of Coastal and Offshore Structures**

TOPIC D: Water Engineering for Sustainable Coastal and Offshore Environments (Built and Natural)

TOPIC CHAIRS: David Kriebel and Michael C. Quick

MODERATOR: Torsten Schlurman

##### **Submerged Groins under Grazing Wave Incidence**

[Jose Sanchez, Madrid, SPAIN](#); [Constantine D. Memos, Delft, THE NETHERLANDS](#); [Carlos Peña, Madrid, SPAIN](#)

#### TECHNICAL SESSION 16 (TS16) • FRIDAY, AUGUST 14, 8:00 – 10:00 AM

ROOM: Plaza B

##### **E-4 Decision-support Systems**

TOPIC E: Advances in Hydroinformatics for Integrated Watershed and Coast Management

TOPIC CHAIR: Barbara J. Lence

MODERATOR: Pradeep Mujumdar

##### **Comparison of Multi-objective Genetic Algorithm with Ant Colony Optimization: A Case Study for Canberra Water Supply System**

[Lijie Cui, Newcastle, AUSTRALIA](#); [Seyed Mohammad Mortazavi Naeini, Callaghan, AUSTRALIA](#); [George Kuczera, Newcastle, AUSTRALIA](#)

## ANNOUNCING... TECHNICAL PROGRAM UPDATES

## PAPER SUBSTITUTIONS

## TECHNICAL SESSION 1 (TS1) •

MONDAY, AUGUST 10, 10:45 AM – 12:30 PM

ROOM: Georgia B

## C-1 Eco-hydraulics

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

TOPIC CHAIR: Wayne C. Huber

MODERATOR: Chris Katopodis and John Williams

## NEW THIRD PAPER:

Dunvegan Hydroelectric Project: Physical Modelling to Develop Upstream Fish Migration strategies during Dam Construction

G. Post, R. Slopek, D. Shepherd, C. Katopodis and K. Matheson, Alberta &amp; Manitoba, Canada

## TECHNICAL SESSION 6 (TS6) •

TUESDAY, AUGUST 11, 2:00 – 3:45 PM

ROOM: Georgia B

## C-1 Eco-hydraulics

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

TOPIC CHAIR: Wayne C. Huber

MODERATOR: Chris Katopodis and Thom Hardy

## NEW FOURTH PAPER:

Two-Dimensional Hydraulic Modeling in a Complex Natural-setting of the Unchannelized Missouri River

Wayne Stancill, Scott Kenner, South Dakota, USA

## ADDITIONAL POSTER AUTHOR

TUESDAY, AUGUST 11 / Regency &amp; Plaza Foyers, Balmoral

## A-1 The Mechanics of Water Flow

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

Numerical and Experimental Investigations of Two-dimensional Dispersion in Meandering Channels

Il Won Seo, Seoul, SOUTH KOREA; Sung Won Park, Seoul, SOUTH KOREA

## NEW POSTER PRESENTATIONS

MONDAY, AUGUST 10 / Regency &amp; Plaza Foyers, Balmoral

## S-2 Smoothed Particle Hydrodynamics Method, SPECIAL SEMINAR linked to A-4

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

Stochastic SPH Model for Flow and Transport in Porous Media

Alexandre M. Tartakovsky

TUESDAY, AUGUST 11 / Regency &amp; Plaza Foyers, Balmoral

## D-3 Estuary Hydraulics

TOPIC D: Water Engineering for Sustainable Coastal and Offshore Environments (Built and Natural)

Field Observations on Behavior of Freshwater from the Chikugo River in Ariake Bay, Japan

Tomonori Saita, JAPAN

WEDNESDAY, AUGUST 12 / Regency &amp; Plaza Foyers, Balmoral

## A-3 Fluvial Hydraulics and Sediment Transport

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

An Experimental Study on Upstream Bed Response Due to Falling Works Improvement

Yasunori Muto, Keiichi Kanda, Hao Zhang, Hajime Nakagawa

THURSDAY, AUGUST 13 / Regency &amp; Plaza Foyers, Balmoral

## C-1 Ecohydraulics

TOPIC C: Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments

Field Actual Proof on the Enhancement of Food Organisms Using FRP Carbide

Akeda Sadamitsu, Kagawa, JAPAN; Masashi Miyagawa, Kagawa, JAPAN; Yoshihiro Suenaga, Kagawa, JAPAN

## MOVED TO POSTER PRESENTATIONS

TUESDAY, AUGUST 11 / Regency &amp; Plaza Foyers, Balmoral

## A-5 Laboratory Experiments, Instrumentation, and Hydraulic Modeling (incl. HydraLab Sessions)

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

Turbulent Structure in Bottom Layer of a Tidal Estuary

Kiyoshi Kawanishi, Higashi-Hiroshima, JAPAN; Mahdi Razaz, Higashi-Hiroshima, JAPAN; Mahmoud Faghfour Maghrebi, Mashhad, IRAN

WEDNESDAY, AUGUST 12 / Regency &amp; Plaza Foyers, Balmoral

## A-4 Numerical Modeling

TOPIC A: Advances in the Fundamentals of Water Science and Engineering

A Non-hydrostatic Pressure Model and Its Implementation of the Dynamic Boundary Condition

Jin Woo Lee, Seoul, KOREA; Yong-Sik Cho, Seoul, KOREA; Jong Wook Lee, Canberra, AUSTRALIA

**ANNOUNCING... TECHNICAL PROGRAM UPDATES**

**ANNOUNCING... NEW EVENT  
SUNDAY, AUGUST 9 • 5:00 – 9:00 PM**

**CSCE Reception for the Commemoration of the CSCE,  
ASCE, and AIC Historic Site**

**“The Mapping of the West Coast of North America by Captain  
George Vancouver”**

**Maritime Museum , 1905 Ogden Avenue**

Hosted by the Canadian Society for Civil Engineering (CSCE)

Reception sponsored by the City of Edmonton

Commemorative Plaque sponsored by  
Environment Canada and  
the American Society of Civil Engineers (ASCE)

Enjoy a night at the museum and join us in commemorating Captain George Vancouver’s engineering accomplishments at a plaque ceremony as part of our 33<sup>RD</sup> IAHR Congress and 19<sup>TH</sup> Canadian Hydrotechnical Conference activities. In the spirit of international cooperation, CSCE, ASCE, and the Asociacion de Ingenieros de Caminos Canales y Puertos of Spain (AIC) have jointly designated the mapping of the west coast of North America by Captain George Vancouver a historic civil engineering landmark.

Captain Vancouver’s exploration and mapping achievement (using his engineering background and skills) is a feat that has withstood the test of time. He established not only the singularity of Vancouver Island, but contributed significantly to contemporary knowledge of the North American west coast.

This free event includes the Commemoration Ceremony (5:00 PM), open access to the museum (5:00 – 9:00 PM), and a no-host refreshment bar.

**ANNOUNCING... TOUR AVAILABILITY**

**TECHNICAL TOUR #3:  
STAVE FALLS AND RUSKIN GENERATING STATIONS  
FRIDAY, AUGUST 14 • 1:30 – 7:00 PM**

is still available.

Please inquire at the Onsite Registration Counter.

**ANNOUNCING...  
ADDITIONAL ACTIVITIES / ROOM CHANGES**

**SATURDAY, AUGUST 8**

**8:00 AM – 7:00 PM • WINDSOR**  
Poster Preparation Room

**SUNDAY, AUGUST 9**

**8:00 AM – 7:00 PM • WINDSOR**  
Poster Preparation Room

**8:00 AM – 5:00 PM • TENNYSON**  
IAHR ACOPNE

**6:00 – 7:00 PM • STANLEY**

IAHR, CSCE, ASCE-EWRI Collaborative Meeting with Keynote

**MONDAY, AUGUST 10**

**8:00 AM – 7:00 PM • WINDSOR**  
Poster Preparation Room

**8:00 AM – 5:00 PM • New location: ENGLISH BAY**  
Hospitality Lounge

**TUESDAY, AUGUST 11**

**8:00 AM – 7:00 PM • WINDSOR**  
Poster Preparation Room

**8:00 AM – 5:00 PM • New location: ENGLISH BAY**  
Hospitality Lounge

**WEDNESDAY, AUGUST 12**

**8:00 AM – 7:00 PM • WINDSOR**  
Poster Preparation Room

**8:00 AM – 5:00 PM • New location: ENGLISH BAY**  
Hospitality Lounge

**9:30 AM – 1:00 PM • New location: CONSTABLE**

IAHR Workshop for Water Institute Directors Meeting  
(by invitation)

**12:30 – 1:15 PM • KENSINGTON**  
IAHR Marine Outfall Systems

**12:30 – 1:30 PM • New location: GEORGIA A**  
IAHR Student Chapter Meeting

**THURSDAY, AUGUST 13**

**8:00 AM – 7:00 PM • WINDSOR**  
Poster Preparation Room

**8:00 AM – 5:00 PM • New location: ENGLISH BAY**  
Hospitality Lounge

**4:05 – 5:50 PM • New location: CYPRESS**  
IAHR Hydroinformatics Joint Committee

**FRIDAY, AUGUST 14**

**8:00 – 9:00 AM • New location: WINDSOR**  
IAHR Breakfast Debriefing Meeting with ASCE-EWRI and  
IAHR LOC Chairs for 2009, 2011, and 2013

**TIME TBD • New location: WINDSOR**  
IAHR New Executive Committee Meeting

**ANNOUNCING... EXHIBITOR LIST AND BOOTH LOCATION**

<b>AAWRE/ACOPNE</b> www.aawre.org	<b>12</b>	<b>JBS Instruments</b> www.jbsenergy.com	<b>14</b>
<b>AquaVeo</b> www.aquaveo.com	<b>19</b>	<b>Kisters North America</b> www.kisters.net	<b>22</b>
<b>Argonne National Laboratory-TRACC</b> www.anl.gov	<b>16</b>	<b>NILEX Civil Environmental Group</b> www.nilex.com	<b>42</b>
<b>Campbell Scientific (Canada) Corp.</b> www.campbellsci.ca	<b>13</b>	<b>Nortek Scientific</b> www.nortekscientific.com	<b>10</b>
<b>Deltares</b> www.deltares.nl	<b>1 &amp; 2</b>	<b>North/South Consultants Inc.</b> www.nscons.ca	<b>45</b>
<b>Environmental and Water Resources Institute (EWRI)</b> http://content.ewrinstitute.org/	<b>25</b>	<b>Prince Sultan Bin Abdulaziz International Prize for Water</b> www.psipw.org	<b>11</b>
<b>Fibrwrap Installations Ltd. (F.I.L.)</b> www.fibrwrapconstruction.com	<b>6</b>	<b>Sontek/YSI</b> www.sontek.com	<b>24</b>
<b>FLO-2D Software, Inc.</b> www.flo-2d.com	<b>23</b>	<b>Teledyne RD Instruments, Inc.</b> www.rdinstruments.com	<b>21</b>
<b>FTS Environmental</b> www.ftsinc.com	<b>9</b>	<b>Telemac Systems</b> www.telemacsystem.com	<b>17</b>
<b>34<sup>TH</sup> IAHR Biennial Congress 2011 Brisbane Australia</b> www.iahr2011.org	<b>40</b>	<b>WEST Consultants, Inc.</b> www.westconsultants.com	<b>20</b>
<b>IAHR Bookstore</b> http://www.iahr.org	<b>28 &amp; 29</b>	<b>XP Software</b> www.xpsoftware.com	<b>43</b>

# HYATT REGENCY VANCOUVER

