

PRELIMINARY PROGRAM



COASTAL STRUCTURES & SOLUTIONS TO COASTAL DISASTERS JOINT CONFERENCE

Boston, Massachusetts | September 9-11, 2015

Resilient Coastal Communities



Sheraton Boston Hotel

www.copricoastalconference.org

Contents

Conference Co-Chairs Invitations	3
Conference Committee	3
Special Events	4
Technical Program	5-9
Registration Information	10
General Information	11
Registration Form	12
Sponsors	13

COPRI Board of Governors

President

Andrew H. Cairns, P.E., D.PE, PMP,
M.ASCE

Vice-President

Thomas H. Wakeman, Eng.Sc.D.,
Dist.D.NE, Dist.D.PE, F.ASCE

Past-President

Jane McKee Smith, Ph.D., P.E., D.CE,
Dist.M.ASCE

Member

William P. Stewart, P.E., C.Eng., D.OE,
M.ASCE

Secretary

Paul A. Work, Ph.D., P.E., D.CE, M.ASCE

Treasurer

Lori S. Brownell, P.E., M.ASCE

ASCE Representative

William H. Hanson, Dist.D.NE, A.M.ASCE

Staff Contacts

Tom Chase, A.M.ASCE

Angie Lander

Important Dates

Early Bird Registration Deadline (EB):

July 15, 2015

Hotel Reservation Deadline:

August 18, 2015

Advance Registration Deadline (ADV):

August 18, 2015

Schedule-At-A-Glance

(Subject to Change)

Tuesday, September 8

2:30 – 7:00 p.m.

Registration Hours

5:30 – 7:00 p.m.

Ice Breaker Reception in Exhibit Hall (Ticketed Event)

Wednesday, September 9

7:30 a.m. – 5:00 p.m.

Registration Hours

(Closed for Lunch from 1:30 – 2:30 p.m.)

7:30 – 8:00 a.m.

Coffee Service in Exhibit Hall

7:30 a.m. – 4:00 p.m.

Exhibit Hall Open

8:00 – 9:40 a.m.

Opening Plenary Session

9:40 – 10:10 a.m.

Networking Break in Exhibit Hall

10:10 a.m. – 12:10 p.m.

Technical Session 1

12:10 – 1:30 p.m.

Lunch on Own

1:30 – 3:30 p.m.

Technical Session 2

3:30 – 4:00 p.m.

Networking Break in Exhibit Hall

4:00 – 6:00 p.m.

Technical Session 3

6:30 – 8:30 p.m.

**Student & Young Professionals Reception
(Ticketed Event)**

Thursday, September 10

7:30 a.m. – 5:00 p.m.

Registration Hours

(Closed for Lunch from 1:30 – 2:30 p.m.)

7:30 – 8:00 a.m.

Coffee Service in Exhibit Hall

7:30 a.m. – 5:30 p.m.

Exhibit Hall Open

8:00 – 9:40 a.m.

Technical Session 4

9:40 – 10:10 a.m.

Networking Break in Exhibit Hall

10:10 a.m. – 12:10 p.m.

Technical Session 5

12:10 – 1:30 p.m.

Lunch on Own

1:30 – 3:30 p.m.

Technical Session 6

3:30 – 5:30 p.m.

Poster Session & Networking Reception In Exhibit Hall

6:00 – 9:00 p.m.

Harbor Boat Tour (Ticket Event)

Friday, September 11

7:30 a.m. – 3:00 p.m.

Registration Hours

(Closed for Lunch from 11:00 a.m. – 12:00 p.m.)

8:00 – 8:30 a.m.

Coffee Service in Exhibit Hall

8:30 – 10:30 a.m.

Technical Session 7

10:30 – 10:45 a.m.

Networking Break in Exhibit Hall

10:45 – 12:45 p.m.

Technical Session 8

12:45 – 2:00 p.m.

Lunch on Own

2:00 – 3:20 p.m.

Technical Session 9

Invitation To Attend



Dear Coastal Professionals,

The Coastal Structures and Solutions to Coastal

Disasters® have existed for many years as independent meetings for coastal professionals to exchange ideas on coastal protection and the vulnerability of the coastal infrastructure to coastal storms (hurricanes, tsunamis and cyclones) and variations in sea level. We are merging the conferences this year to provide attendees a more diverse forum for discussion of coastal development, protection and resiliency.

Our theme this year is “**Resilient Coastal Communities.**” It is our philosophy that a truly resilient community requires the active input of scientists and engineers in conjunction with community planners and managers, social scientists, policy makers and the community itself. Given the public’s enjoyment of the coast as residents or visitors, we must all use care and restraint to preserve and enhance our waterfront for future generations. We appreciate the enthusiastic support of the metropolitan Boston Community, our Sponsors and Cooperating Organizations and we look forward to meeting you at this year’s Coastal Structures and Solutions to Coastal Disasters® Joint Conference 2015!

Please join us for an exciting event. We look forward to seeing you in Boston!

Dan Cox, Ph.D.

Oregon State University
Coastal Structures Co-Chair



Louise Wallendorf, P.E., M.ASCE

U.S. Naval Academy
Solutions to Coastal Disasters® Co-Chair



Conference Co-Chairs

Daniel Cox, Ph.D.

Oregon State University, USA

Louise Wallendorf, P.E., M.ASCE

U.S. Naval Academy, USA

Planning Committee

Brian A. Caufield, P.E., CFM, M.ASCE

CDM Smith, USA

Lesley Ewing, Ph.D., P.E., D.CE, M.ASCE

California Coastal Commission, USA

Christopher P. Jones, P.E., M.ASCE

Christopher P. Jones & Associates, USA

Technical Committee

William Allsop, Ph.D.

HR Wallingford, UK

Billy Edge, Ph.D., P.E., D.CE, Dist.M.ASCE

North Carolina State University, USA

Leopoldo Franco, Ph.D.

University of Rome - III, Italy

Carol J. Friedland, Ph.D., P.E., M.ASCE

Louisiana State University, USA

John R. Headland, P.E., D.CE, D.PE, M.ASCE

Headland and Associates, LLC, USA

Jennifer Irish, Ph.D., P.E., D.CE, M.ASCE

Virginia Tech University, USA

Sebastian Jonkman, Ph.D.

TU Delft, The Netherlands

Andrew Kennedy, Ph.D., M.ASCE

University of Notre Dame, USA

Nobuhisa Kobayashi, Ph.D., M.ASCE

University of Delaware, USA

Andreas Kortenhaus

Ghent University, Belgium

David Kriebel, Ph.D., P.E., D.CE, M.ASCE

U.S. Naval Academy, USA

Inigo Javier Losada, Ph.D., M.ASCE

University of Cantabria, Spain

Patrick J. Lynett, Ph.D., M.ASCE

University of Southern California, USA

Hajime Mase, Ph.D., M.ASCE

Kyoto University, Japan

Jeffrey A. Melby, Ph.D., M.ASCE

US Army Corps of Engineers – ERDC, USA

Ioan Nistor, Ph.D., P.Eng, M.ASCE

University of Ottawa, Canada

H. Ronald Riggs, Ph.D., P.E., M.ASCE

University of Hawaii, USA

Spencer Rogers, M.ASCE

North Carolina Sea Grant, USA

Tsutomu Sakakiyama, Ph.D.

CRIEPI, Japan

Michael B. Salisbury, Jr., P.E., M.ASCE

Atkins Global, North America, USA

Kyung Doug Suh, Ph.D., D.CE., M.ASCE

Seoul National University, Korea

Jentsje van der Meer, Ph.D., D.CE, M.ASCE

Van de Meer Consulting, The Netherlands

Marcel van Gent, Ph.D.

Deltares, The Netherlands

Robert Walker, Ph.D., P.E., S.M.ASCE

University of Hawaii, USA

Bret M. Webb, Ph.D., P.E., D.CE, M.ASCE

University of South Alabama, USA

Barbara Zanuttigh, Ph.D., P.E., A.M.ASCE

University of Bologna, Italy

Special Events

Tuesday, September 8

Ice Breaker Reception

5:30 – 7:00 p.m., *Exhibit Hall*

Reconnect with colleagues and meet new friends at this year's Welcome Reception. Enjoy light refreshments in the exhibits area as you network and discuss which sessions to attend.

Wednesday, September 9

Opening Plenary Session

8:00 – 9:40 a.m.

The Opening Plenary will include welcoming remarks, a keynote speaker and the awards ceremony.

Awards Ceremony



Stive



Synolakis



Jones

International Coastal Engineering Award

Marcell Ainus J. F. Stive, Ph.D

John G. Moffatt-Frank E. Nichol Harbor and Coastal Engineering Award

Costas Emmanuel Synolakis, Ph.D., M.ASCE

Orville T. Magoon Sustainable Coasts Award

Christopher P. Jones, P.E., M.ASCE

Project Excellence Award

Small Project – Makah Tribe Commercial Dock Replacement, submitted by BergerABAM

Large Project – Port of Newport International Terminal Renovation, submitted by GRI

Student and Young Professionals Reception

6:30 – 8:30 p.m., *Top of the Hub – Skywalk*

Students and Young Professionals are invited to attend a special networking reception on Wednesday. Network with ASCE and COPRI leadership, ACOPNE Diplomats, and invited guests. Make new contacts and meet with other conference attendees who share your interests. The Reception will include an Academy of Coastal, Ocean, Port and Navigation Engineers (ACOPNE) Diplomat ceremony recognizing engineers who have a special knowledge and experience in the fields of civil engineering that comprise ACOPNE and who have excelled in one or more of the sub-disciplines embraced by COPRI. Business Attire.

This event is by invitation only.

Thursday, September 10

Poster and Networking Session

3:30 – 5:30 p.m., *Exhibit Hall*

Due to the overwhelming variety of abstracts, the conference technical committee has elected to add a hosted poster session. On Thursday afternoon, the Exhibit Hall will become the Poster Hall, with over 40 posters covering breakwaters and tide gates to fishing piers and oyster reefs; typhoon and storm risk to building codes and debris management. Enjoy a beer or soft drink, a light reception menu, and join other colleagues as you examine the poster materials and talk with the presenters.

Boston Harbor Cruise

6:00 – 9:00 p.m.

Discover the historic and contemporary milestones of Boston's inner and outer harbors during this fun and informative tour. From the hero tales of the Revolutionary War to the local legends of the sea, you'll be entertained and enthralled. See how the harbor was transformed to one of the cleanest harbors in the country. Other highlights you'll see include the nation's oldest continuously manned lighthouse, the Harbor Islands National Park Area, Boston's working port and examples of extravagant waterfront living.

This event requires a ticket. Space is limited.

Register by July 15th and take advantage of Early Bird Pricing.

Members: \$40.00; Non-Members \$50.00

Sponsorships Available

Highlight your company's commitment and unique contribution to COPRI COASTAL CONFERENCE 2015 before the industry's premier leaders, planners and practitioners by becoming a conference sponsor at the event. For further information, contact **Sean Scully** at (703) 295-6154.

Download the sponsorship prospectus at
www.copricoastalconference.org/sponsors

Wednesday, September 9

10:10 – 12:10 p.m. Technical Sessions – Session 1			
A-1: CS	B-1: SCD	C-1: CS or SCD	D-1: CS OR SCD
Wave Loads 1 Moderator: Andreas Kortenhaus	Coastal Storms Moderator: Bryan Jones, P.E., D.PE, M.ASCE	Coastal Hazards & the Built Environment 1 Moderator: Chris Jones, P.E., M.ASCE	Evaluation of Nature Based Options & Performance Moderator: Bret Webb, Ph.D., P.E.
Effects of High-Order Non-Linearity of Random Waves on Wave Pressures Acting on Breakwaters, Hiroaki Kashima, Katsuya Hirayama, Nobuhito Mori Forces Measurements on Storm Walls: A Large Scale Model Experiment, Alessandro Romano, Koen Van Doorslaer, Giorgio Bellotti, Ivan Caceres, Julien De Rouck, Leopoldo Franco Nonlinear Wave Loads on Decks of Coastal Bridges, Masoud Hayatdavoodi, R. Cengiz Ertekin Estimation of Impulsive Pressure Acting on an Upright Wall on a Steeply Sloping Sea Bottom, Kenichiro Shimozaki, Shigeo Takahashi, Naoki Tsuruta, Kojiro Suzuki Dynamic Pressures On Semi- and Quarter-Circular Breakwaters, Xuelian Jiang, QingPing Zou Numerical Simulation of Hydrodynamic Interference Effects on Coastal Twin Bridge Decks Under Hurricane Waves, Guojie Xu, C.S. Cai	A High Resolution Storm Surge Model for Rhode Island Coastal Flooding, Within The Stormtools Framework, M. Reza Hashemi, Malcolm L. Spaulding Similarity in Frequency and Severity of Flood Events on the U.S. Atlantic Coast Over The Past Century, Angela Schedel Identifying and Mapping Coastal Flood Risks After Hurricane Sandy in Rhode Island, Brian Caufield, Lauren Klonsky Coastal Flooding at Gulf of Maine During Patriot's Day Storm, Dongmei Xie Incorporating a Blend of Solutions for Flood Mitigation in Hurricane Sandy Recovery, Matt Shultz, Rahul Parab, Long Xu, Susan McCormick Impact of Hurricane Sandy on Delaware Coastal Areas, Mohammad Keshipoor, Jack Puleo	Wave, Surge, and Wind Damage to Near-Coast Structures During Super Typhoon Haiyan, Andrew Kennedy, Yoshimitsu Tajima, Nobuhito Mori, Shen-En Chen Building Damage Analysis Following Hurricane Ike on the Bolivar Peninsula, Texas, Spencer Rogers, Andrew Kennedy Fragility Analysis of Single Family Home Wood Framed Buildings Considering Wind and Flood Hazards, Carol Massarra, Carol Friedland Model Tests of Shallow Water Wave Loads on Walls, Ryan Tran, David Kriebel Case Study: Whole-systems Approach to Water Quality and Climate Impacts at the San Diego International Airport, Beth Breitenbach Assessing the Efficiency of Stiffener Rings in Mitigating Surge Buckling Fragility of Above Ground Storage Tanks, Sabarethinam Kameshwar, Jamie Padgett	Bridging the Gap Between Engineering and Ecology: A Decision-Making and Design Framework for Nature-Based Defenses in Coastal Protection, Borja González Reguero, Iñigo Losada, Siddharth Narayan, Bregje van Wesenbeeck, Kelly Burks-Copes, Nigel Pontee Natural Habitats Reduce Waves and Storm Surge. What Does it Mean for My Community? Greg Guannel, Zach Ferdana, Chris Bergh, James Byrne, Laura Flessner A Forensic Analysis of the Performance of Ecologically Enhanced Features at Hunt's Point and Oak Point, The Bronx, New York, Andrew Rella A Forensic Analysis of the Performance of Ecologically Enhanced Features Along the Hudson River and The Bronx, New York, Andrew Rella Speaking for the Resources: Strategies for Protecting Natural and Cultural Resources on Coastal Federal Lands During Coastal Hazard Responses, Eric Bardenhagen, Rebecca Beavers
1:30 – 3:30 p.m. Technical Sessions – Session 2			
A-2: CS	B-2: SCD	C-2: CS or SCD	D-2: CS or SCD
Wave Loads 2 Moderator: Javier Lara, Ph.D.	Mapping Coastal Flood Hazards Moderator: Jon Miller, Ph.D.	Coastal Hazards and the Built Environment 2 Moderator: Nasser Brahim, A.M.ASCE	Coastal Flood Barriers Moderator: Charlie Roberts, P.E., M.ASCE
Wave Overtopping and Wave-Induced Loads on Coastal Sea Walls, Andreas Kortenhaus, Maximilian Streicher, Corinna Hohls, Koen Trouw, Corrado Altomare, Tomohiro Suzuki, Daphné Thoon, Peter Troch, Julien De Rouck Experimental Study of Horizontal Wave Forces on Double Chamber Perforated Caisson, Sang-Ho Oh, Chang-Hwan Ji, Young Min Oh, Dal Soo Lee Investigation on Uplift Dynamic Pressures in Crown Wall Breakwaters, Edgar Mendoza, Manuel Verduzco-Zapata, Rodolfo Silva Oscillating Water Column (OWC) Wave Energy Converters – Large Scale Tests at GWK, Tom Bruce, William Allsop, John Alderson, Vincenzo Ferrante, Diego Vicinanza, Matthias Kudella Conjectures on the Failure of the OWC Breakwater at Mutriku, Encarnacion Medina-Lopez, William Allsop, Aggelos Dimakopoulos, Tom Bruce Analysis of a Vertical Caisson Breakwater Under Wave Induced Cyclic Loads, Jay Lee, Chris Pilkington, Fiona Chow	Identification of Coastal Hazard Maps for Altata Port and Culiacan, Sinaloa, México, Oscar Cruz-Castro, Juan Gaytan-Iniestra, José Concepción López-Rivera, Jorge Melendez-Estrada, María del Carmen López-Rosas Estimation of Wave Runup and Overtopping for Coastal Flood Hazard Mapping, Bob Battalio, Pablo Quiroga, Louis White, To Dang Identifying and Mapping Coastal High Hazard Areas on the Great Lakes, Michael Godesky, Tucker Mahoney, Don Resio The Great Lakes Coastal Storm Hazards for Lake Ontario and Lake Erie, Jeff Gangai, Jesse Hayden, Yi Zheng A Sensitivity Study of Storm Flooding Zones to the Accepted Risk and Wave Model Used: A Case Study for Washington County, Rhode Island, Annette Grilli, Malcolm Spaulding, Lauren Schambach Hurricane Sandy Advisory Flood Mapping and Outreach, Tucker Mahoney, Kelly Bronowicz, Rick Sacibit, Jon Westcott, Matthew Buddie, Jeff Gangai, Emily Dhingra, Brian Batten	Storm Surge Risk Modeling in a Changing Climate: Assessing Impacts to Key Transportation Assets of the Central Artery System, Boston, MA, Kirk Bosma, Ellen Douglas, Paul Kirshen, Chris Watson, Steven Miller Mapping the Vulnerability of Critical Infrastructure and Facilities, Daniel Boudreau, Samuel Bell Development of Coastal Road Protection Utilizing an Artificial Neural Network for Storm Damage Assessment, Josh Carter, Matt Campbell Coast Guard's Post Disaster Assessment and Evaluation of Critical Infrastructure, Brian Bachtel, Elizabeth Nakagawa, Niles Pierson Retrofitting Solutions from FEMA's Hurricane Sandy Mitigation Assessment Team, Daniel Bass, John Ingargiola Consumer Wind Hazard Mitigation Decision Framework, Fatemeh Orooji, Carol Friedland	Flooding Mitigation Benefits for the Ike Dike Concept for the Houston/Galveston Region, Donald Hendon, Bruce Ebersole, Robert Whalin, Thomas Richardson, Chris Massey, William Merrell Studies on Storm Surge Barrier for Flood Risk Reduction in the Houston-Galveston Bay, Sebastian Jonkman Community-Integration and the "Ike Dike": A Coastal Surge Protection System for the Houston-Galveston Region of Texas, Eric Bardenhagen, Galen Newman, Anna Loes Nillesen Design of Storm Surge Barriers in Gothenburg, Sweden, Henry Tuin, Henrik Bodin-Sköld, Hessel Voortman, Mats Andréasson, Geert Schaap, Ulf Moback Addressing Hurricane Surge Hazard Uncertainty in Coastal Barrier Design, Robert Jacobsen, Nathan Dill, Arden Herrin, Michael Beck Aseismic and Anti-Tsunami Upgrade of Existing Coastal Levees by Double Sheet Pile Walls, Takefumi Takuma

4:00 – 6:00 p.m. Technical Sessions – Session 3			
A-3: CS	B-3: SCD	C-3: CS or SCD	D-3: CS or SCD
Wave Runup & Overtopping Moderator: Marcel Van Gent, Ph.D.	Resilience Moderator: Billy Edge, Ph.D., P.E., D.CE, Dist.M.ASCE	Nature Based Shore Protection Moderator: Louise Wallendorf, P.E., M.ASCE	Tsunami Generation & Modeling Moderator: Hajime Mase, Ph.D., M.ASCE
Individual Overtopping Volumes for Steep Low-Crested Structures, David Gallach-Sanchez, Jeroen Platteeuw, Peter Troch, Andreas Kortenhau Hydraulic Parameters of Overtopping Wave Volumes, Steven Hughes An Advanced And Improved Artificial Neural Network for the Prediction of Wave Overtopping, Barbara Zanutigh, Sara Mizar Formentin, Jentsje Van der Meer Validation of Cumulative Overload Method Based on Tests by the New Wave Run-Up Simulator, Jentsje van der Meer, Gosse Jan Steendam, Andre van Hoven Wave Overtopping Prediction for Sloping Coastal Structures with Overspill Basin at Crest, Adriana Grossi, Andreas Kortenhau, Alessandro Romano, Leopoldo Franco Extreme Wave Runup in the Coastal Zone: Experimental and Numerical Modeling, Colin Whittaker, Colm Fitzgerald, Paul Taylor, Alison Raby	Engaging Communities in Resiliency Efforts Post-Hurricane Sandy, Frances Bui, Lauren Klonsky Computing Coastal Storm Damages Prevented by USACE Projects, Susan Durden, Lauren Klonsky, Lori Hadley, Idris Dobbs Coastal Flood Protection Design in New York and New Jersey Region After Superstorm Sandy, Shan Zou Evaluation of Coastal Hazard & Climate Change Adaptation Strategies for Communities on the Delaware Bay, Steve Eberbach, Michael Powell, Tony Pratt, Mark Osler Quantification of Safety Standards for Small Islands in the Wadden Sea, Theide Wöfler, Holger Schüttrumpf Using New LiDAR Data to Update Old Tsunami Hazard Maps on the Island of Hawaii, Mull Jeremy, Elena Drei-Horgan, Kristen MacDougall	Designing Nature-Based Coastal Defenses: A Modeling Approach to Identify Critical Properties of Back Bay Systems, Seth Lawler, Celso Ferreira, Juan Luis Hervas Garzon, Jana Haddad Irregular Nonlinear Wave Propagation Through Wetland Vegetation: Two-Dimensional Propagation, James Kaihatu, Aravinda Venkattaramanan A Series of Experiments Investigating Wave Attenuation Through Artificial Marshgrass, Mary Anderson Numerical Modeling of Coastal Protection Capacity of Mangrove Forests, Maria Maza, Javier L. Lara, Inigo J. Losada Evaluation of Berm Shape for Wave Energy Reduction in Restored Tidal Wetlands, Jane Smith, Elizabeth Murray, Thad Pratt Green Infrastructure for Coastal Resilience — Barges Beach, Cuttyhunk, Town of Gosnold, Tara Marden	Modeling Tsunami Sources and Their Propagation in the Atlantic Ocean for Coastal Tsunami Hazard Assessment and Inundation Mapping Along the U.S. East Coast, Stephan Grilli, Annette Grilli, Babak Tehranirad, James Kirby On the Need for Larger Manning’s Roughness Coefficients in Depth-Integrated Tsunami Inundation Models, Jeremy Bricker, Stanford Gibson, Hiroshi Takagi, Fumihiko Imamura Hydro-Acoustic Wave Generation During the Tohoku-oki 2011 Earthquake, Ali Abdolali, James T. Kirby, Giorgio Bellotti, Stephan Grilli, Jeffrey C. Harris The 1975 Kitimat Landslide Tsunami: Validation and Comparative Testing of Modeling Strategies, James T. Kirby, Fengyan Shi, Gangfeng Ma, Shubhra Misra, Pramod Rao Tsunami Hydrodynamic Modeling for Grays Harbor, Washington, Younes Nouri, Vladimir Shepiss

Thursday, September 10

8:00 – 9:40 a.m. Technical Sessions – Session 4			
A-4: CS	B-4: SCD	C-4: CS or SCD	D-4: CS or SCD
Resilience & Assessment of Protection Structures Moderator: Barbara Zanutigh, Ph.D.	Storm Surge Nuclear Power Plants Moderator: Mike Salisbury, P.E., M.ASCE	Performance Based Design Moderator: Giuseppe Tomaisicchio	Tsunamis Measurements and Debris Moderator: Shigeo Takahashi, Ph.D., D.CE
Quantifying Resilience for Coastal Structures and Nourished Beaches, John Headland Resilience of Shore Protection Efforts During Disasters and Routine Conditions, Lesley Ewing, Costas Synolakis Engineered Shoreline Protection – Case Study from the Jersey Shore Material Selection Process, Sustainability, and Impacts from Sandy, Arthur Chew, Christopher Timpson Appropriate Coastal Protection Strategies for Caribbean Coastlines Under Threat from Rising Sea Levels and Hurricanes, Jamel Banton Matrix Approach for Assessment of Coastal Resilience, Cate Fox-Lent	Strategies in Mitigating Coastal Flooding Hazards to U.S. Nuclear Power Plants in the Post-Fukushima Environment, Mustafa Samad, Craig Talbot Evaluation of Reevaluated Coastal Storm Surge Risks at U.S. Nuclear Power Plants, Christopher Bender, Don Resio, Ashley Kauppila Deterministic vs. Probabilistic Methods for Storm Surge Modeling and their Implications on Nuclear Power Plant Design, Michael Salisbury Storm Surge – Tsunami Safety Criteria and Current Site Reviews in the United States, Henry Jones The Effects of Natural Structure on Extreme Statistics of Storms Surges, Don Resio	Probabilistic Design of the Secondary Breakwater in the New Harbour Basin of the Outer Port of La Coruña (Spain), Enrique Maciñeira, Enrique Peña, Victoria Bajo, José Sande, Fernando Noya Verification of the Rock Toe Stability Applying the Design Performance Curves, Montse Vilchez, María Clavero, Miguel A. Losada Systematic Selection Method for Storm Surge Protection Facilities Using Analytic Hierarchy Process, Takashi Tamada, Hajime Mase, Tomohiro Yasuda On the Design of Coastal Structures for Success (and Failure), David Basco Wave Impacts on Rock Lighthouses, Alison Raby, Davide Banfi, David Simmonds Technical Advances in the Development of a Floating Buoy WEC: MICO, Sara Izquierdo, Erick García-Santiago, Edgar Mendoza, Rodolfo Silva, José Alberto González-Escriva	“Smart” Debris Location Tracking Based on RFID Technique, Nils Goseberg, Ioan Nistor, Jacob Stolle Shipping Container Impact Assessment During Tsunamis, Ron Riggs, Clay Naito Optical and Numerical Study of Tsunami Impact through Discontinuous Vegetation Patches, Yongqian Yang, Jennifer Irish, Robert Weiss Flood-Induced Debris Dynamics over a Horizontal Apron, Jacob Stolle, Ioan Nistor, Nils Goseberg, S. Matsuba, Ryota Nakamura, Takahito Mikami, Tomoya Shibayama Stability of the Concrete Bridge Girder Under Tsunami, Masahiro Watanabe, Taro Arikawa

10:10 a.m. – 12:10 p.m. Technical Sessions – Session 5			
A-5: CS	B-5: SCD	C-5: CS or SCD	D-5: CS or SCD
<p>Armor Stability 1 Moderator: Jeff Melby, Ph.D., M.ASCE</p> <p>Rock Slopes on Top of Sand: Open Filters Under Wave Loading, Marcel van Gent</p> <p>Design of the Western Breakwater for the Outer Port at Punta Langosteira (A Coruña, Spain), Josep R. Medina, M. Esther Gómez-Martin, Enrique Peña, Antonio Corredor</p> <p>Numerical Modeling of Wave Reflection and Transmission in Vertical Porous Structures, Jeroen van den Bos</p> <p>Numerical Evaluation of Stability Methods for Rubble Mound Breakwater Toes, Senne Verpoorten, Wouter Ockeloen, Henk Jan Verhagen</p> <p>A New Symmetrical Unit for Breakwater Armour: First Tests, Mohammed Salauddin, Andre Broere, Jentsje van der Meer, Henk Jan Verhagen, Eelco Bijl</p> <p>Numerical Modeling of Breakwater Armour Systems, John-Paul Latham, Jiansheng Xiang, Pablo Higuera, Eleni Anastaski, Liwei Guo, Nikolaos Karantzoulis, Axelle Vire, Christopher Pain</p>	<p>Beaches Moderator: John Headland, P.E., D.CE, D.PE, M.ASCE</p> <p>Terminal Groin and Beach Nourishment at Folly Beach County Park (South Carolina), Haiqing Kaczkowski, Steven Traynum, Tim Kana, Mike Rentz</p> <p>Winthrop Beach: Utilizing a Mixed Sediment Nourishment Regime to Restore an Urban Beach, John Ramsey, Joseph Orfant, Rachel Burckardt</p> <p>Climate Change and Barrier-Beach Responses: Hawke's Bay, New Zealand, Paul Komar, Erica Harris</p> <p>Impact Assessment of Future Climate Change on Sandy Beach – Case Study at Kaika Coast of Japan, Yoko Shibutani, Kentaro Hayashi, Masamitsu Kuroiwa, Nobuhito Mori, Hajime Mase</p> <p>Application of an Equilibrium Shoreline Model to the New Jersey Coast, Christian LaPann-Johannessen, Jon Miller</p> <p>General Model for Longshore Transport at Any Coastal Body, Giuseppe Roberto Tomasichio, Felice D'Alessandro</p>	<p>Coastal Modeling 1 Moderator: Dave Kriebel, Ph.D., P.E., D.CE, M.ASCE</p> <p>USACE ERDC's Coastal Storm Modeling System, Thomas Massey, Mary Cialone, Alison Grzegorzewski, Harry Friebe</p> <p>Development and Validation of an Operational Forecasting System for Waves and Coastal Flooding and Drying in Cook Inlet, Alaska, Abhishek Sharma, Vijay Panchang, Mindo Choi</p> <p>Can Resonance Modes Impact Hurricane Storm Surge Flooding in the Chesapeake Bay? Juan Luis Garzon, Celso M. Ferreira, Robert A. Dalrymple</p> <p>Development of Time-Evolving Surge Response Functions (TSRFs) in Galveston, Texas, Yi Liu, Jennifer Irish</p> <p>Optimum Scheme of Adaptive Mesh Refinement for Tsunami and Storm Surge Modeling, Yu Chida, Nobuhito Mori, Tomohiro Yasuda, Hajime Mase</p> <p>Hydrodynamic Modeling of the Barrier Islands and Tidal Inlets of Long Beach, Long Island, Kenneth Hunu, Daniel Stapleton, Bin Wang</p>	<p>Tsunami Structures 1 Moderator: Ron Riggs, Ph.D., P.E., M.ASCE</p> <p>Hydrodynamic Impact of Bore Waves Against Structures, Daive Wüthrich, Ioan Nistor, Michael Pfister, Anton Schleiss</p> <p>A Method for Estimating the Reflected Tsunami Inundation Depth at the Front of RC Building with Aperture, Hideo Matsutomi</p> <p>Tsunami Response Analysis of Pile-Supported RC Buildings in Onagawa Town Due to the 2011 Great East Japan Earthquake and Tsunami, Yoshihiro Okumura, Takuya Yane, Junji Kiyono, H.R. Riggs</p> <p>Numerical Analysis of Three-Dimensional Tsunami Induced Forces on Coastal Structures, Javier Lara, Inigo Losada, Pablo Higuera, David Casasnovas, Raul Guanche</p> <p>Experimental Study on Solitary Wave Force Acting on Seawall, Taro Arikawa</p> <p>Experimental Study of Tsunami Waves and Forces on Simple Structures by Hybrid Tsunami Generator, Adi Prasetyo, Tori Tomiczek, Tomohiro Yasuda, Nobuhito Mori, Hajime Mase</p>
1:30 – 3:30 p.m. Technical Sessions – Session 6			
A-6: CS	B-6: SCD	C-6: CS or SCD	D-6: CS or SCD
<p>Armor Stability 2 Moderator: William Allsop, Ph.D.</p> <p>Physical Modeling and Design Optimizations for a New Port in Brazil, Scott Baker, Nels Sultan, Andrew Cornett</p> <p>Scour Protection, Terminal Groin/Jetty Construction and Beach Replenishment at Amtrak's New Niantic River Bridge, J. Richard Weggel, Craig Benedict, Ara Mouradian, John Brun</p> <p>Design and Construction of Berm Breakwaters, Sigurdur Sigurdarson, Jentsje van der Meer</p> <p>Concrete-Enhanced Synthetic Turf Revetment System – An Innovative Technology for Protecting Coastal Structures, Bradford Cooley, Christopher Thornton, Steven Hughes</p> <p>A Rubble Mound Breakwater with Two Submerged Berms, Berguzar Ozbahceci, Alp Kucukosmanoglu</p> <p>Experimental Study on Wave Transmission Characteristics and Stability of Submerged Structures, Jong-In Lee, Sungwon Shin, Ilro Bae</p>	<p>Design for Resilience Moderator: Spencer Rogers, M.ASCE</p> <p>Post Hurricane Sandy Storm Damage Assessment and Breach Fill Coastal Engineering Analysis, Jeff Tabar</p> <p>Design Resilient Coastal Structures Using Risk-Informed Decision Making, Daniel Stapleton, Russell Morgan, Bin Wang, Peter Williams</p> <p>Improving the Representation of the Fragility of Coastal Structures, Robert Jane, David Simmonds, Alison Raby, Luciana Dalla Valle, Jonathan Simm, Ben Gouldby</p> <p>Case Study: Village of Surfside, Texas – Design, Performance, and Adaptive Management of Coastal Structures, Matt Campbell, Casey Connor, Josh Carter</p> <p>A Review of Methods Used to Improve the Resilience of Communities In Low-Income Countries to coastal floods and Their Relevance to the United States, Darren Lumbroso, Jonathan Simm, Robert Nichols, Kathleen White, Natalie Suckall, Susan Durden</p> <p>The Need for a Fundamental Framework on Resilience in Coastal Risk Reduction Systems, Mathijs van Ledden, Bas Jonkman, Nancy Powell, Fola Ogunyoye, Bob Rowlette</p>	<p>Coastal Modeling 2 Moderator: Jane Smith, Ph.D., P.E., D.CE, Dist.M.ASCE</p> <p>Projection of Future Wave Climate Due to Global Warming – Application to Coastal Structures, Nobuhito Mori</p> <p>Projection of Storm Surge in the Future Climate Considering Bias of Typhoons by GCM, Tomohiro Yasuda, Nariaki Katahira, Nobuhito Mori, Hajime Mase</p> <p>Is There any Impact to the Coastal Regions Caused by Typhoon Weather Changes Due to Global Warming? Ryusuke Hashimura</p> <p>EOF Analysis of the WIS Wave Dataset along the U.S. East Coast to Forecast Coastal Hazards, Elizabeth Livermont, Jon Miller, Christian LaPann-Johannessen, Thomas Herrington</p> <p>Tsunami-like Bores Generated from Storm Waves, Volker Roeber, Jeremy Bricker</p>	<p>Tsunami Structures 2 Moderator: Ioan Nistor, Ph.D., P.Eng, M.ASCE</p> <p>Numerical Analysis on Tsunami Overtopping Caisson Breakwaters and Stability of Armor Units, Jun Mitsui, Akira Matsumoto, Minoru Hanzawa, Kazuo Nadaoka</p> <p>Stability of the Breakwater with Steel Pipe Piles under Tsunami Overflow, Shin Oikawa, Taro Arikawa, Yoshiaki Kikuchi, Akihito Yahiro, Kenichiro Shimosako</p> <p>Wave Force Reduction Effect Of Wave-Dissipating Works Against Tsunami with Soliton Fission, Sohei Maruyama, Tomotsuka Takayama, Kenichiro Shimosako, Akihiko Yahiro, Kojiro Suzuki, Toru Aota, Masashi Tanaka, Akira Matsumoto, Minoru Hanzawa</p> <p>Development and Installation of Flap-gate Seawall Against Tsunami, Yuichiro Kimura, Katsuya Shimizu, Masaaki Wani, Mitsuhiro Yasuda, Hiroki Kimura, Hajime Mase</p> <p>Dynamic Behavior of a Flexible Membrane Tsunami Barrier with Dyneema, Bas Hofland, Roelof Marissen</p> <p>Experimental Study on Tsunami Characteristics Flowing Over Breakwaters with Different Shapes, Shota Seto, Yoshimitsu Tajima, Hideyuki Nakao</p>

3:30 – 5:30 p.m.

Poster and Networking Session in Exhibit Hall

Influence of Wave Chamber Width on the Horizontal Wave Forces on the Perforated Caisson, **Chang-Hwan Ji, Sang-Ho Oh, Young-Min Oh, Se-chul Jang**

Coastal Resiliency Starts with Understanding Your Risk, **Michael DelCharco, Christina Lindemer**

Risk Assessment and Management for Interconnected Critical Coastal Levee Infrastructure Systems in Case of Overtopping, **Hamed Hamedifar, Robert Bea, Juan Pestana-Nascimento, Emery Roe**

Structural Deflections from Wave Forces, **Garland Pennison**

Detailed Characterization of Tropical Cyclones and Surge Levels for the Houston-Galveston Region, **Antonia Sebastian, E.J.C. (Guy) Dupuits, Sebastian N. Jonkman**

Applied Wave Modeling for Harbor Improvements: An Opportunity for Boussinesq Model Advancement, **Philip Blackmar, Ronald McPherson, Harvey Smith**

Alliance for a Living Ocean's Participation in the Grassroots Community Relief Effort After Hurricane Sandy on Long Beach Island, NJ, USA, **Amy Williams, Christopher Huch, Jr.**

Ocean Fishing Piers – Coastal Engineering Guidelines for Hurricane Resistant Design and Construction, **Ralph Clark**

A Study on the Estimation of Sediment Discharge from the Naka River by using the Hybrid Method, **Makoto Takahashi**

Mitigating Shoreline Erosion at McMurdo Station, Antarctica, **Mark Osler, Karin Ohman, Mohammad Keshtpoor**

Setting Priorities for Nature-Based Solutions, **Hande Caliskan**

Structural Evaluation of Multifunctional Flood Defences Using Generic Element Types, **Mark Voorendt, Han Vrijling**

Dynamic Tidal Effects on Tsunami Propagation and Implications for Coastal Tsunami Hazard Assessment, **Michael Shelby, Stephan Grilli, Annette Grilli**

Wave Loading Assessment for Beachfront Houses, **Guoji Xu, C.S. Cai**

Performance of Armor Blocks Behind Seawall by Over Flow Due to Tsunami, **Gozo Tsujimoto, Tetsuya Kakinoki, Kohji Uno, Ayaka Yamaoka**

The effect of a Dragging Anchor on a Horizontal Layer of Rockfill, **S. Crum, M.L.E.B. van der Hoeven, L.P.H.C. Krouwel, Henk Jan Verhagen**

Monmouth Beach, NJ – NFWF Dune Restoration and Endangered Species Habitat Enhancement Project, **Mark Jaworski**

Gap Analysis for the Implementation of Hazard Science to Increase Community Resilience, **Dennis Hwang**

Evaluating the Resiliency of Coastal North Florida, **Morgan Smith, Sergio Pena**

Numerical Investigation of Developed and Underdeveloped Barrier Island Response to Hurricane Sandy, **Stephanie M. Smallegan, Jennifer L. Irish, Joost P. den Bieman, Ap R. van Dongeren**

Risk Based Design Approach for Resilient Coastal Communities, **King Chin**

Crescent City Harbor Tsunami Damage and Recovery **Ted Trenkwalder, Ward Stover**

Stability Tests and Damage on Breakwaters Armoured with Tetrapods **Otavio Sayao, Renan Silva**

An Experimental Study of Overtopping Profile in the Leese of Breakwater, **Yong-Uk Ryu, Young-Taek Kim, Jong-In Lee**

Multivariate Coastal and Off-Shore Design and Risk Assessment Via Copulas at the Arabian Gulf, **Gianfausto Salvadori, Giuseppe Roberto Tomasicchio, Felice D'Alessandro, Walid El-Shorbagy, Abu Baker El-Hakeem**

Impacts of Sea Level Rise and Climate Change on Boston Harbor – Coastal Inundation Mapping, **Tianyi Liu, Bin Wang, Daniel Stapleton**

Vulnerability Assessment of Rhode Island's Marinas to Sea Level Rise and Storm Surge **Wendy Laurent**

Preliminary Investigations of the free-Surface Physics of Wave Impact on Sea Walls, **Jannette Frandsen**

Assisting Communities in Becoming More Resilient: Mitigation and Resiliency Funding, **Samuel Bell**

Sediment Transport Field Study Around a Notched Groin, **Omar Lopez-Feliciano**

Numerical Study on Breakwaters by the Accurate Particle Method, **Noaki Tsuruta, Kojiro Suzuki, Kenichiro Shimozaki, Hitoshi Gotoh**

Evaluation of Storm Surge and Sea Level Rise in Wickford, Rhode Island, **Alex Shaw, Malcolm Spaulding, Christopher Baxter**

Geotechnical Mitigation and Adaptation to Climate Change-Induced Geo-Disasters in Asia-Pacific Regions, **Yasuhara Kasuya, Hemanta Hazrika, Do Minh Duc, Mathew Francis**

Physical Modeling to Support the Rehabilitation and Design Optimization of the Jetties at the Mouth of the Columbia River, **Paul Knox, Gillian Millar, Scott Baker, Susan Tonkin, Andrew Cornett**

A Hydrodynamic Modeling and Geospatial Framework for Assessing the Storm Surge Protection Potential Provided by Wetlands to Virginia's Coastal Populations, **Jana Haddad, Seth Lawler, Celso Ferreira**

Typhoon Risk from Wind, Flood and Storm Surge Perils in Japan, **Ruilong Li, Cagdas Kafali**

Modern Building Codes and Flood Resilience, **Gregory Wilson, Rebecca Quinn**

Conclusions and Recommendations from FEMA's Hurricane Sandy Mitigation Assessment Team, **John Ingargiola, Erin Ashley**

Hydrodynamic and sediment Transport Modeling of an Alabama Coastal Lagoon to Assist With Sediment Bypassing and Maintenance of Water Quality, **Bryan Groza, Bret Webb**

Salisbury Tide Gate, **Ryan McCoy, J. Matthew Bellisle**

Wave Overtopping on Vertical Structures: Variation of Superstructure and Vertical Wall, **Young-Taek Kim, Jong-In Lee**

Stakeholder Involvement in Understanding the Economic Impacts of Climate Change and Storm Surge on Maritime Infrastructure: Rhode Island Pilot Study, **Eric Kretsch**

Understanding the Role of Resiliency in the U.S. Army Corps of Engineers, **Emily Vuxton, Lauren Leuck**

Understanding the Ecology of Bioengineering: The Importance of Restoring Native Plant Communities and Achieve Coastal Stability Through the Innovative Use of Bioengineering, **Seth Wilkinson**

SAFRR Tsunami Scenario Debris Management Assessment of California Port Facilities, **Terri Norton, Phillip Moore, Anne Wein**

Friday, September 11

8:30 – 10:30 a.m. Technical Sessions – Session 7			
A-7: CS	B-7: SCD	C-7: CS or SCD	D-7: CS or SCD
<p>Wave Soil Structures Moderator: Nobuhito Mori, Ph.D., A.M.ASCE</p> <p>Exploring the Need for Geotextile Filters for Rubble Bunds Retaining Sand-Fill Islands, William Allsop, Andrea Polidoro, Tim Pullen</p> <p>Sliding and Floating of Wooden Houses Due to Storms Surge and Waves, Xavier Chavez Cardenas, Nobuhisa Kobayashi, Rebecca Quan</p> <p>Breakwater Innovation Concept Design Using Geotextile Tube as Core, Daoxian Dave Shen, Edward Albada, Ron Beardsley, Liang He, Padhraic O'Connor</p> <p>Numerical Simulation on Scour Behind Seawall due to Tsunami Overflow, Dong Wang, Taro Arikawa, Shaowu Li, Hayao Gen</p> <p>Wave-Induced Seabed Instability Around Breakwaters, Dong-Sheng Jeng</p> <p>Laboratory Modeling of Scour on Seawalls, Ravindra Jayaratne, Edgar Mendoza, Rodolfo Silva, Francisco Gutiérrez</p>	<p>Climate Change – Changing Hazards & Effects Moderator: Karthik Ramanathan, Ph.D.</p> <p>The Financial Cost of Rising Sea Levels in Southeast Florida, Mark Hope, Tim Doggett, Karthik Ramanathan</p> <p>Sea Level Rise and the National Flood Insurance Program, Mark Crowell</p> <p>Application of STORMTOOLS's Simplified Flood Inundation Model, With and Without Sea Level Rise to Rhode Island Coastal Waters, Malcolm Spaulding</p> <p>Climate Change Impacts on Wave and Surge Processes in a Pacific Northwest (United States) Estuary, Tiffany Cheng, David Hill, Jordan Beamer, Gabriel Garcia-Medina</p> <p>Conceptual Response of Runup-Dominated Coastlines to Sea Level Rise and Anthropogenic Adaptation Measures, Justin Vandever, Jeremy Mull, Darryl Hatheway, Vince Geronimo, Kris May</p> <p>Methods for the Evaluation of Coastal Flooding at Multiple Return Periods Under Present and Future Sea-Levels, Taylor Asher, Gabriel Toro</p>	<p>Nature Based Breakwaters Moderator: Rob Walker, Ph.D., P.E., S.M.ASCE</p> <p>Emulating Nature by Building an Island Style Breakwater for the Ft. Pierce Marina, Jack Cox</p> <p>CFD Modeling for Analysis of Living Shoreline Structure Performance, Josh Carter, Scott Fenical, Craig Harter, Joshua Todd</p> <p>Erosion Mitigation Using Soft Engineering: Application of Dynamic Revetments on the Pacific Northwest Coast of Oregon, Jonathan Allan, Paul Komar</p> <p>Effects of Low-Crested Living Shoreline Breakwaters on Wave Setup, Kari Servold, Bret Webb, Scott Douglass</p> <p>Wave Transmission Through Artificial Reef Breakwaters, Bret Webb, Richard Allen</p> <p>Re-engineering of Coral Reefs for Coastal Protection: A Pilot Experience in the Caribbean, Borja González Reguero, Philip Kramer, Boze Hancock, Michael Beck, Vera Agostini, Ruth Blyther</p>	<p>Urban Shorelines Moderator: Brian Caufield, P.E., M.ASCE</p> <p>Solstice Creek Restoration: Sustainability of Fisheries in Southern California, Ben Willardson, Tsou Jaw, Peter Champion</p> <p>Rockaway Boardwalk - Urban Shoreline, Jonathan Goldstick, Domenica Stasiak</p> <p>Rehabilitating Boston's Aging Seawalls for Sea Level Rise and Coastal Resiliency, Charlie Roberts, Rebecca Skalaski</p> <p>Balancing Shore Protection and Public Access Concerns: Engineering a Solution for an AMTRAK Track Realignment, Bill Scheer, Sean Kelley, John Ramsey</p> <p>Development of a Wave Power Generation System Using a Vertical Breakwater, Takaaki Shigematsu, Kenji Katoh, Tatsuro Wakimoto</p> <p>Rapid Identification and Assessment of New York City's Waterfront, Stephen Famularo, Brian Craine</p>
10:45 a.m. – 12:45 p.m. Technical Sessions – Session 8			
A-8: CS or SCD	B-8: CS or SCD	C-8: CS or SCD	D-8: CS or SCD
<p>Coastal Dunes Performance & Modeling Moderator: Kenneth Craig, P.E., M.ASCE</p> <p>Conceptual Design and Physical Model Study of Core-Enhanced Dunes as Hybrid Coastal Defense Structures, Jens Figlus, Nicholas West, Badreya Almarshed, Sebastiaan Jonkman</p> <p>Comparison of the Damage Mechanisms to Oceanfront Structures Protected by a Dune System vs. a Rock Seawall During Hurricane Sandy, Katlin Walling, Jon Miller, Thomas Herrington</p> <p>Evaluating the Economic Effects of Coastal Dunes in Reducing Storm-Induced Property Damage: Hurricane Ike and Galveston Island Case Study, Jacob Sigren, Wesley Highfield, Jens Figlus, Anna Armitage</p> <p>Comparison of Dune Erosion Predictions and Protective Capacities Using SBEACH and XBeach, Matthew Jansen, Jon Miller, Thomas Herrington</p> <p>Performance Comparison of Dune Erosion Models Relative to Storm Erosion Measurements on Pacific Coast Beaches, Christopher Day, Younes Nouri, David Simpson</p> <p>Assessing Coastal Erosion for Kivalina for Engineering and Economic Analysis for Climate Change Adaptation, Amit Armstrong, Jerry Ramsden, Elias Scheker Da Silva</p>	<p>Coastal Modeling 3 Moderator: Lynn Bocamazo, P.E., D.CE, M.ASCE</p> <p>Coastal Hazards System, Jeffrey Melby</p> <p>Assessing Extreme Coastal Storm Climatology and Associated Flooding Potential for Coastal New England, Michael Mobile, Douglas Stewart, Daniel Stapleton, Lee Branscome</p> <p>Design Implications of Uncertainty Analysis as a Means to Interpret Coastal Hazard Modeling: Diego Garcia Case Study, Adam Keen, Patrick Lynett, Rob Sloop</p> <p>Storm Surge Forecast Using a Neural Network – Case Study of Sakai Minato and Hamada, Japan, Sooyoul Kim, Yoshiharu Matsumi, Yujiro Izuta, Hajime Mase, Nobuhito Mori, Tomohiro Yasuda</p> <p>Storm Surge and Propagation of Seiche Waves in Lake Erie, Ali Farhadzadeh</p> <p>Asset Management Strategy for a Coastal Revetment Exposed to Increased Wave Forcing: Grays Harbor, Washington, United States, David Michalsen, Scott Brown</p>	<p>Coastal Zone Management Moderator: Tom Herrington, Ph.D.</p> <p>Massachusetts Coastal Erosion Commission: Work, Findings & Recommendations, Rebecca Haney</p> <p>Inlet Management in Massachusetts with an Aim to Address Shoreline Erosion, Sean Kelley, John Ramsey, Hugh Ruthven</p> <p>Implementing a Structural Compensation Program for Connecticut's Long Island Sound Coastline, Ian Yue</p> <p>Social Vulnerability eXplorer (SV-X), David Lanter</p> <p>Building Coastal Resilience Through Training: Experiences and Lessons from the National Disaster Preparedness Training Center, Karl Kim, Dennis Hwang</p> <p>Use of Agent-based Modeling to Validate Hurricane Evacuation Planning, Darren Lumbroso, Jonathan Simm, Mark Davison, Christopher Penney, Jeffrey Morris, Susan Durden</p>	<p>Tsunami Mitigation Moderator: Tomoaki Nakamura, Ph.D.</p> <p>Future Tsunami Disaster Mitigation – Lessons Learned from the Great East Japan Earthquake and Tsunami Disaster, Shigeo Takahashi, Takashi Tomita, Kenichiro Shimosako</p> <p>Tsunami Reduction due to Breakwaters – Lessons Learned from the 2011 Tohoku Tsunami, Takashi Tomita, Tatsuya Niwa, Kazuhiko Honda</p> <p>Performance-Based Tsunami Engineering: Data Explorer, Harry Yeh, Dylan Keon, Patrick Lynett, Hong Kie Thio</p> <p>Tsunami disaster risk management capabilities in Greece, Georgios Marios Karagiannis, Costas Synolakis</p> <p>Evaluation of Human Damage by Tsunami with Evacuation Simulation for Optimum Seawall Design, Yoshiyuki Uno</p> <p>Tsunami Inundation Modeling for Life Safety and Civil Infrastructure Damage: Application to the Cascadia Subduction Zone and Newport, Oregon, Daniel Cox, Hyoungsu Park, Alireza Mostafizi, Haizhong Wang, Lori Cramer</p>

2:00 – 3:20 p.m. Technical Sessions – Session 9		
A-9: CS or SCD	B-9: CS or SCD	C-9: CS or SCD
PANEL 1 Moderator: Malcolm Spaulding, Ph.D., P.E., M.ASCE	PANEL 2 Moderator: Juliette Hart, Ph.D	Tsunami Morphology/Sediments Moderator: Harry Yeh, Ph.D., P.E., M.ASCE
The Path Forward in Coastal Flooding in the Presence of Sea Level Rise Panelists: Grover Fugate, Director, Coastal Resources Management Council Christopher P. Jones, P.E. Spencer Rogers, NC Sea Grant Bret M. Webb, Ph.D., P.E., Associate Professor of Civil Engineering, University of South Alabama	Urban Shorelines: Say What? Strategies for Effective Communication of Technical Information in Stakeholder Engagement Panelists: Juliette Finzi Hart, USC Sea Grant Phyllis Grifman, USC Sea Grant Alyssa Newton Mann, USC Sea Grant	Tsunami-Induced Beach Profile Changes with Different Initial Profiles, Yoshiaki Kuriyama, Yoshiyuki Uno, Kazuhiko Honda, Kenya Takahashi Does Morphological Adjustment During Tsunami Inundation Increase Levels of Hazard? Babak Tehranirad, James Kirby, Fengyan Shi, Stephan Grilli A Study on Tenacity of Coastal Dikes Constructed by Clay and Lean Cement Mixed Soil Tsunami Overflow, Takahide Honda, Yukinobu Oda, Kazunori Ito, Hiroyasu Ishii, Tomoyuki Takabatake Study on Tsunami Scour at Landward Toe of Coastal Dike and Tsunami Force on Its Armor Blocks, Tomoaki Nakamura, Yuta Nezasa, Norimi Mizutani, Yasuo Kotake Soil-Instability And Sediment Transport Estimates for a Hypothetical Tsunami Event at Seaside, Oregon, H. Benjamin Mason, Rachael Fischer



The Official Conference Hotel

Sheraton Boston Hotel
39 Dalton Street
Boston, MA 02199

Sheraton Boston Hotel is located just four miles from Boston Logan International Airport. Enjoy indoor access to shopping and restaurants

at The Shops at Prudential Center and Copley Place or one of our Boston Back Bay restaurants. Stroll just a few blocks to Copley Square, the Charles River, the Museum of Fine Arts or Fenway Park.

Reservations Online or Reservations by Phone: (617) 236-2000 or (800) 325-3535. Mention the COPRI Conference 2015 to secure the following discounted room rate:

Single/Double: \$269

ADA Compliance

The Sheraton Boston Hotel is barrier-free in compliance with the Americans with Disabilities Act (ADA). ASCE/COPRI will make every reasonable effort to accommodate your needs. If you require special assistance, please contact us no later than 20 business days prior to the event. ASCE/COPRI cannot ensure the availability of appropriate accommodations without prior notification.

Attire

The dress code for the Conference is business casual (i.e. slacks, casual dresses) to business attire (i.e., neckties, business suits). Meeting room temperatures will vary, so wear layered clothing to ensure your personal comfort. We also recommend attendees wear comfortable shoes. Please note that certain events may have specific details on attire and you should refer to the event on the website for more information.

Badge Policy

Your Conference registration name badge is your admission to the educational sessions. Please wear your badge at all times. Tickets are required for special events and the tour. Be sure to bring your tickets with you to each event as you will not be admitted without a ticket. COPRI recommends you remove your badge when leaving the hotel.

Cancellations/Refunds

Cancellations must be sent in writing or via email prior to Tuesday, August 18, 2015. A refund will be issued, minus a \$65 processing fee, if the cancellation notice is received by ASCE/COPRI by that date. No refunds will be made for cancellations received after the August 18, 2015 deadline. Send cancellations to registrations@asce.org or fax to (703) 295-6144.

Conference Proceedings

The Conference proceedings will be available post conference. Additional information will be provided regarding availability in the Final Program.

Destination

Boston is one of the oldest cities in the United States. Founded in 1630, it has many interesting features that make it a fascinating place to visit. The Sheraton Boston Hotel is centrally located in the popular Boston Back Bay and is just minutes away from some of the most popular attractions. The hotel is connected to the Prudential Center where the upscale Copley Place Mall offers many shops and restaurants. See some of the city's famous history by taking a tour of the Freedom Trail which will lead you through Boston stopping at Paul Revere's House, Old North Church, Old South Meeting House and many other sites. The Aquarium, Museum of Fine Arts and the Museum of Science are also all near the hotel.

Medical Emergencies

COPRI hopes that your visit to the Coastal Structures & Solutions to Coastal Disasters Joint Conference will be free of medical incidents. However, if you become ill at The Sheraton Boston Hotel, please contact the front desk and tell them you have a medical emergency that requires immediate attention. Hotel house phones are located in the hotel lobby and near the elevators on every floor. For true life-threatening emergencies, such as chest pain, shortness of breath, or severe abdominal pain, you should call 911, then the front desk.

Nearby Medical Location

Brigham and Women's Hospital with Emergency Department

75 Francis Street, Boston MA 02115
(617) 732-5500

Distance from hotel: 2 miles – 10 minute drive depending on traffic

No Smoking Policy

ASCE/COPRI supports a "No Smoking" Policy. Smoking is prohibited at the Sheraton Boston Hotel and all venues hosting ASCE events.

Professional Development Hours (PDHs)

You may earn PDHs, which are nationally recognized units of record, by attending Conference technical sessions and plenary sessions. Note there are differences from state to state in continuing education requirements for professional engineering licensure. ASCE follows NCEES guidelines on continuing professional competency. Since continuing education requirements for P.E. license renewal vary from state to state, ASCE strongly recommends you regularly check with your state registration board(s) on their specific continuing education requirements that affect P.E. licensure and ability to renew licensure. Get details on state's requirements by going to <http://ncees.org/about-ncees>.

Program and Session Cancellation

COPRI reserves the right to cancel programs and/or sessions because of low registration. In the unlikely event of cancellation, all registrants will be notified and will receive a full refund, if applicable. Events are subject to change, and COPRI reserves the right to substitute a plenary session, and/or speaker of equal caliber to fulfill the educational requirements.

Recording Policy

Photographic, video or audio recording of any education session is strictly prohibited without prior written permission from both ASCE and the session presenter(s).

Release/Waiver

Photograph Release: By attending the Conference, I hereby release any photographs that may be incidentally taken of me by ASCE/COPRI during these events to be used for any purpose.

Liability Waiver: I agree and acknowledge that I am participating in ASCE/COPRI events and activities at my own free and intentional act; and I am fully aware that possible physical injury might occur to me as a result of my participation. I give this acknowledgement freely and knowingly that I am, as a result, able to participate in ASCE/COPRI events, and I do hereby assume responsibility for my own well-being. I also agree not to allow any other individual to participate in my place.

Transportation

Boston Logan International Airport (BOS) www.airport-bos.com or (412) 472-3525. This airport is located approximately 5 miles from Sheraton Boston Hotel.

Weather in Boston, Massachusetts

The average high at the beginning of September is 75° F / 24° C and average low is 57° F / 14° C.

Registration Information

Don't Miss Out On COPRI Member Rates

Not a member of COPRI or ASCE? Join now to save on your conference registration and get the member rate on all COPRI/ASCE conferences, publications, continuing education and more. Visit www.asce.org/COPRI/join to join now, or call 800-548-ASCE (2723).

Early Bird Registration Discount (EB)

Register early for the best savings. Early Bird Registration offers the best option to receive all eligible tickets for included events. The deadline for Early Bird Registration is Wednesday, **July 15, 2015**. Registration form(s), including payment, must be **received** by this date to qualify for the discount.

Advance Registration Discount (ADV)

If you miss the early bird deadline, there is still time to take advantage of an Advance Registration Discount. The deadline for Advance Registration is Tuesday, **August 18, 2015**. Registration form(s), including payment, must be **received** by this date to qualify for the discount.

On-Site Registration (ONS)

Please do not mail registration forms through the U.S. Postal Service **after August 18, 2015** in order to ensure your registration is processed onsite. After this date, registrations must be secured with a credit card. If you are paying by credit card, please register online or download the PDF registration form and submit it to registrations@asce.org with payment information. Avoid long lines at onsite registration and register online at www.copricoastalconference.org/registration.

Confirmation of Registration

A confirmation will be emailed to all Early Bird and Advance registrants within one week of registering for the Conference. If you do not receive confirmation within one week, please contact Customer Service at (800) 548-2723, or email registrations@asce.org.



Please complete the registration form including signature and payment information. Use one registration form per person. Registrations will not be processed without full payment and registrant's full name. By submitting the registration form the individual agrees to all registration policies on ASCE's Conference website.

Contact Information (*Indicates required information)

*First Name _____ MI _____ *Last Name _____
 Credentials _____ Badge Nickname _____
 Title _____
 *Company/Organization/University _____
 *Street Address/PO Box _____
 *City _____ *State _____ *Postal Code _____ *Country U.S. _____
 *Primary Phone _____ *Cell Phone _____
 *Email _____ ASCE Member Number _____

Please answer these questions so that we may serve you better (*indicates required information):

- *1 The organization I work for is: Private Government Education Military Other
- *2 My position is: Partner/Principal Senior Manager Middle Manager Technical/Professional Staff Faculty Student Retiree
- *3 How many previous ASCE Conferences have you attended?
 0 1 2 3 or more
- *4 My age group: Under 25 25-34 35-49 50-65 Over 65



5. Check if you require:
 Vegetarian Lacto-Vegetarian Ovo-Vegetarian
 Vegan Other
6. Check if you have allergies to the following:
 Peanuts Tree nuts Seafood
 Other _____
7. Check if you require special aids or services:
 Deaf or Hearing Impaired Blind or Visually Impaired
 Wheelchair Bound Other _____

Fax: (703) 295-6144
 Phone: (800) 548-2723 (U.S.)
 Phone: +1 (703) 295-6300 (International)
 Mail: ASCE/COPRI
 PO Box 79668
 Baltimore, MD 21279-0668 USA

Join COPRI today and SAVE!

Become a member of COPRI and receive a discount of \$150 for the **COPRI Coastal Conference 2015**, go to www.asce.org/copri/join.

Register by July 15, 2015 and Save!

For complete Conference information and to register online, visit www.copricoastalconference.org. For additional information please contact Customer Service at registrations@asce.org or call 800-548-2723.

Full Registration

	EARLY BIRD By 7/15/15	ADVANCE By 8/18/15	ONSITE After 8/18/15
Member ASCE, COPRI, Cooperating Organization	<input type="checkbox"/> \$595	<input type="checkbox"/> \$695	<input type="checkbox"/> \$795
Non-Members	<input type="checkbox"/> \$745	<input type="checkbox"/> \$845	<input type="checkbox"/> \$945
Speaker Member	<input type="checkbox"/> \$595	<input type="checkbox"/> \$695	<input type="checkbox"/> \$795
Speaker Non-Member	<input type="checkbox"/> \$745	<input type="checkbox"/> \$845	<input type="checkbox"/> \$945
Moderator Member	<input type="checkbox"/> \$595	<input type="checkbox"/> \$695	<input type="checkbox"/> \$795
Moderator Non-Member	<input type="checkbox"/> \$745	<input type="checkbox"/> \$845	<input type="checkbox"/> \$945

Full Student Registration

	EARLY BIRD By 7/15/15	ADVANCE By 8/18/15	ONSITE After 8/18/15
	<input type="checkbox"/> \$150	<input type="checkbox"/> \$150	<input type="checkbox"/> \$200

*Full-time Students must submit valid ID when registration form is submitted and onsite at registration desk when picking up name badge.

Student Registrants: Included in your Full Registration fee are the following tickets. There is no extra charge for these events. However, each registrant must mark yes or no below in order to receive a ticket to the events.

- Ice Breaker Reception in Exhibit Hall, Tuesday** Yes, I will attend No
Student Network Social, Wednesday Yes, I will attend No

Full Registrants: Included in your Full Registration fee is the following ticket. There is no extra charge for this event. However, each registrant must mark yes or no below in order to receive a ticket to this event.

- Ice Breaker Reception in Exhibit Hall, Tuesday** Yes, I will attend No

Daily Registration

Please select one day: Wednesday, 9/9/15 Thursday, 9/10/15 Friday, 9/11/15

	EARLY BIRD By 7/15/15	ADVANCE By 8/18/15	ONSITE After 8/18/15
Member ASCE, COPRI, Cooperating Organization	<input type="checkbox"/> \$295	<input type="checkbox"/> \$345	<input type="checkbox"/> \$395
Non-Member	<input type="checkbox"/> \$345	<input type="checkbox"/> \$395	<input type="checkbox"/> \$445

Additional Tickets

	EARLY BIRD By 7/15/15	ADVANCE By 8/18/15	ONSITE After 8/18/15
Ice Breaker Reception in Exhibit Hall, Tuesday, 9/8/15, 5:30 – 7:00 p.m. (Extra Reception Ticket; One ticket included in each full registration)			
Member	<input type="checkbox"/> \$40	<input type="checkbox"/> \$40	<input type="checkbox"/> \$50
Non-Member	<input type="checkbox"/> \$50	<input type="checkbox"/> \$50	<input type="checkbox"/> \$60
Harbor Boat Tour, 9/10/15, Thursday, 6:00 – 9:00 p.m.			
Member	<input type="checkbox"/> \$40	<input type="checkbox"/> \$40	<input type="checkbox"/> \$50
Non-Member	<input type="checkbox"/> \$50	<input type="checkbox"/> \$50	<input type="checkbox"/> \$60

PAYMENT: Full Payment must accompany this registration form. No REFUNDS granted for on-site registrations.

Full Registration \$ _____ **CHECK** Checks must be issued in U.S. dollars and drawn on U.S. banks. To pay registration fee by check, postmark your registration by August 18, 2015 and mail to:
ASCE/COPRI Coastal Conference 2015
 PO Box 79668
 Baltimore, MD 21279-0668 USA

CREDIT CARD AMEX VISA MasterCard Discover Diners Card
 Credit Card # _____
 Security Code _____ Expiration Date (MM/YY) _____
 Cardholder Name _____
 Signature _____

TOTAL (amount to pay) \$ _____ **PURCHASE ORDER**
 # _____
 (must submit a copy of the PO with this registration)

Thank You COPRI Coastal Conference 2015 Sponsors*

Silver



Bronze

AECOM

Cooperating Organizations



Highlight your company's commitment and unique contribution to COPRI COASTAL CONFERENCE 2015 before the industry's premier leaders, planners and practitioners by becoming a conference sponsor at the event. For further information, contact **Sean Scully** at (703) 295-6154.

Download the sponsorship prospectus at
www.copricoastalconference.org/sponsors

* Sponsors as of June 10, 2015