

# OMAE 2002, Oslo, Norway: OE-JVW Mini-Symposium on Water Waves, Ship Waves and Marine Hydrodynamics

## JVW Symposium Sessions At-A-Glance

| Tuesday<br>June 25                                                                  |               | Wednesday<br>June 26                                                                       |               |
|-------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------|---------------|
| <a href="#">Session 8.10 Opening Preliminaries/Nonlinear Wave-Body Effects (3W)</a> | 09.00 – 10.30 | <a href="#">Session 8.7 Ship-Motion Predictions (4W)</a>                                   | 09.00 – 10.30 |
| Coffee Break                                                                        | 10.30 – 11.00 | Coffee Break                                                                               | 10.30 – 11.00 |
| <a href="#">Session 8.5 Shallow-Water Hydrodynamics (4W)</a>                        | 11.00 – 12.30 | <a href="#">Session 8.8 Wave-Body Interaction &amp; Ship Waves (4W, 1P)</a>                | 11.00 – 12.30 |
| Lunch                                                                               | 12.30 – 14.00 | Lunch                                                                                      | 12.30 – 14.00 |
| <a href="#">Session 8.4 Rogue Waves &amp; Wave-Body Interaction (4W)</a>            | 14.00 – 15.30 | <a href="#">Session 8.9 Higher-Order Effects (4W)</a>                                      | 14.00 – 15.30 |
| Coffee Break                                                                        | 15.30 – 16.00 | Coffee Break                                                                               | 15.30 – 16.00 |
| <a href="#">Session 8.3 Ocean Surface Waves (2W, 2P)</a>                            | 16.00 – 17.30 | <a href="#">Session 8.6 Closing Remarks/Internal Waves &amp; Planing Surfaces (2W, 2P)</a> | 16.00 – 17.30 |

## JVW Symposium Session Chairs/Co-Chairs

| Session                          | Organizer        | Chair                 | Co-Chair             |
|----------------------------------|------------------|-----------------------|----------------------|
| <a href="#">8.3</a>              | D.T. Valentine   | Prof. J.V. Wehausen   | Prof. K.J. Bai       |
| <a href="#">8.4</a>              | R.C. Ertekin     | Prof. M. Tulin        | Prof. W.C. Webster   |
| <a href="#">8.5</a>              | J. Hammack       | Prof. J. Hammack      | Prof. S. Calisal     |
| <a href="#">Closing and 8.6</a>  | D.T. Valentine   | Prof. S.D. Sharma     | Prof. D.T. Valentine |
| <a href="#">8.7</a>              | R.C. Ertekin     | Prof. J.N. Newman     | Prof. C.M. Lee       |
| <a href="#">8.8</a>              | R.W. Yeung       | Prof. R.W. Yeung      | Prof. M. Haddara     |
| <a href="#">8.9</a>              | S.K. Chakrabarti | Prof. A. Papanikolaou | Dr. Jan O. de Kat    |
| <a href="#">Opening and 8.10</a> | R.C. Ertekin     | Prof. J.P. Breslin    | Prof. S.H. Sphaier   |

### Notes:

Total Number of Presentations: 32

Total Number of Written papers: 27 (W's)

Total Number of Presentations Only: 5 (P's)

**Session 8.3: Ocean Surface Waves**  
**Session Organizer:** Prof. D.T. Valentine  
**Session Chair:** Prof. J.V. Wehausen  
**Session Co-Chair:** Prof. K.J. Bai

**Tuesday  
June 25**

**Session 8.3 Ocean Surface Waves (2W, 2P)**

**16.00 – 17.30**

| <b>Paper No.</b> | <b>Presentation only (P) or Written Paper (W)</b> | <b>Paper Title</b>                                                               | <b>Author Name</b>              | <b>Author Affiliation</b>          | <b>Author e-mail</b>                                                                                                     |
|------------------|---------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 28558            | W                                                 | On our understanding of the mechanics of energetic ocean waves                   | Marshall Tulin                  | Ocean Engineering Laboratory, UCSB | <a href="mailto:mpt@engineering.ucsb.edu">mpt@engineering.ucsb.edu</a>                                                   |
| 28525            | W                                                 | Experiments on deep-water waves with two-dimensional surface patterns            | Joe Hammack, Diane M. Henderson | Penn State University              | <a href="mailto:hammack@math.psu.edu">hammack@math.psu.edu</a><br><a href="mailto:dmh@math.psu.edu">dmh@math.psu.edu</a> |
| 28507            | P                                                 | New exact evolution equations for surface waves: Validation of asymptotic models | Wooyoung Choi                   | University of Michigan             | <a href="mailto:wychoi@engin.umich.edu">wychoi@engin.umich.edu</a>                                                       |
| 28493            | P                                                 | A critical examination of wind wave spectra functional forms                     | Norden E. Huang                 | NASA Goddard Space Flight Center   | <a href="mailto:norden@neptune.gsfc.nasa.gov">norden@neptune.gsfc.nasa.gov</a>                                           |

**Session 8.4: Rogue Waves & Wave-Body Interaction****Session Organizer:** Prof. R.C. Ertekin**Session Chair:** Prof. M. Tulin**Session Co-Chair:** Prof. W.C. WebsterTuesday  
June 25

Session 8.4 Rogue Waves &amp; Wave-Body Interaction (4W)

14.00 – 15.30

| Paper No. | Presentation only (P) or Written Paper (W) | Paper Title                                                                                     | Author Name                                           | Author Affiliation                                                | Author e-mail                                                                                                                                                                                            |
|-----------|--------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28523     | W                                          | Some nonlinear behavior of freak waves and envelop solitons                                     | Didier Clamond, John Grue                             | University of Oslo                                                | <a href="mailto:didier@math.uio.no">didier@math.uio.no</a><br><a href="mailto:johng@math.uio.no">johng@math.uio.no</a>                                                                                   |
| 28459     | W                                          | Task-Related Rogue Waves Embedded in Extreme Seas                                               | Guenther F. Clauss                                    | Berlin University of Technology                                   | <a href="mailto:clauss@ism.tu-berlin.de">clauss@ism.tu-berlin.de</a>                                                                                                                                     |
| 28524     | W                                          | Tailor Made Freak Waves within Irregular Seas                                                   | Walter L. Kuehnlein, Janou Hennig, Guenther F. Clauss | HSVA-Hamburg Ship Model Basin and Berlin University of Technology | <a href="mailto:Kuehnlein@hsva.de">Kuehnlein@hsva.de</a><br><a href="mailto:hennig@ism.tu-berlin.de">hennig@ism.tu-berlin.de</a><br><a href="mailto:clauss@ism.tu-berlin.de">clauss@ism.tu-berlin.de</a> |
| 28531     | W                                          | On the Interaction of Waves with Intake/Discharge Flows Originating from a Freely-Floating Body | B. Padmanabhan, R.C. Ertekin                          | J. Ray McDermott, Inc. and Univ. of Hawaii                        | <a href="mailto:bpadmanabhan@mcdermott.com">bpadmanabhan@mcdermott.com</a><br><a href="mailto:ertekin@hawaii.edu">ertekin@hawaii.edu</a>                                                                 |

**Session 8.5: Shallow-Water Hydrodynamics****Session Organizer:** Prof. Joe Hammack**Session Chair:** Prof. J. Hammack**Session Co-Chair:** Prof. S. CalisalTuesday  
June 25

Session 8.5 Shallow-Water Hydrodynamics (4W)

11.00 – 12.30

| Paper No. | Presentation only (P) or Written Paper (W) | Paper Title                                                                                                 | Author Name                                                     | Author Affiliation                                                                                       | Author e-mail                                                                                                                                                                                                                                                      |
|-----------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28541     | W                                          | A Strongly-Nonlinear Model for Water Waves in Water of Variable Depth - The Irrotational Green-Naghdi Model | Jang Whan Kim, Kwang June Bai, R.C. Ertekin, William C. Webster | American Bureau of Shipping, Seoul National University, Univ. of Hawaii, Univ. of California at Berkeley | <a href="mailto:JangKim@eagle.org">JangKim@eagle.org</a><br><a href="mailto:kjbai@snu.ac.kr">kjbai@snu.ac.kr</a><br><a href="mailto:ertekin@hawaii.edu">ertekin@hawaii.edu</a><br><a href="mailto:webster@socrates.berkeley.edu">webster@socrates.berkeley.edu</a> |
| 28411     | W                                          | A nonlinear, coupled-mode model for water waves over a general bathymetry                                   | Gerassimos Athanassoulis, Konstandinos Belibassakis             | National Technical University of Athens                                                                  | <a href="mailto:mathan@central.ntua.gr">mathan@central.ntua.gr</a><br><a href="mailto:kbel@fluid.mech.ntua.gr">kbel@fluid.mech.ntua.gr</a>                                                                                                                         |
| 28529     | W                                          | Free Surface Flow past Ships in Shallow Water                                                               | Aniruddha Ganguly, Vladimir Shigunov, Osman Turan               | Ship Stability Research Centre                                                                           | <a href="mailto:aniruddha.ganguly@na-me.ac.uk">aniruddha.ganguly@na-me.ac.uk</a><br><a href="mailto:vladimir.shigunov@na-me.ac.uk">vladimir.shigunov@na-me.ac.uk</a><br><a href="mailto:o.turan@na-me.strath.ac.uk">o.turan@na-me.strath.ac.uk</a>                 |
| 28463     | W                                          | Numerical Computations for a Nonlinear Free Surface Problem in Shallow Water                                | Kwang June Bai, Jo Hyun Kyoung, Jang Whan Kim                   | Seoul National University and American Bureau of Shipping                                                | <a href="mailto:kjbai@snu.ac.kr">kjbai@snu.ac.kr</a><br><a href="mailto:jo Hyun3@snu.ac.kr">jo Hyun3@snu.ac.kr</a><br><a href="mailto:JangKim@eagle.org">JangKim@eagle.org</a>                                                                                     |

**Session 8.6: Closing Remarks/Internal Waves & Planing Surfaces****Session Organizer:** Prof. D.T. Valentine**Session Chair:** Prof. S.D. Sharma**Session Co-Chair:** Prof. D.T. Valentine**Wednesday  
June 26****Session 8.6 Closing Remarks/Internal Waves & Planing Surfaces (2W,  
2P)****16.00 – 17.30**

| <b>Paper No.</b> | <b>Presentation only (P) or Written Paper (W)</b> | <b>Paper Title</b>                                                   | <b>Author Name</b>             | <b>Author Affiliation</b>                                       | <b>Author e-mail</b>                                             |
|------------------|---------------------------------------------------|----------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------|
| 28635            | P                                                 | Planing and Some Extensions to Practical Forms                       | John P. Breslin                | Stevens Institute of Technology                                 | <a href="mailto:ionyran@eresmas.net">ionyran@eresmas.net</a>     |
| 28027            | P                                                 | Nonlinear Internal Waves Of The Type Observed In Coastal Seas        | Daniel T. Valentine            | Clarkson University                                             | <a href="mailto:clara@clarkson.edu">clara@clarkson.edu</a>       |
| 28495            | W                                                 | Modeling of an Internal Wave Gravity Current Using Euler's Equations | Deborah J. Wood                | University of Oslo                                              | <a href="mailto:deborah@math.uio.no">deborah@math.uio.no</a>     |
| 28514            | W                                                 | LIMITING FORMS OF INTERNAL SOLITARY WAVES                            | Janna L. Maltseva              | Lavrentyev Institute of Hydrodynamics                           | <a href="mailto:maltseva@hydro.nsc.ru">maltseva@hydro.nsc.ru</a> |
| 28597            | P                                                 | Strongly nonlinear internal wave models.                             | Roberto Camassa, Wooyoung Choi | University of North Carolina at Chapel Hill and Los Alamos Lab. | <a href="mailto:camassa@amath.unc.edu">camassa@amath.unc.edu</a> |

**Session 8.7: Ship-Motion Predictions****Session Organizer:** Prof. R.C. Ertekin**Session Chair:** Prof. J.N. Newman**Session Co-Chair:** Prof. C.M. Lee

**Wednesday  
June 26**

**Session 8.7 Ship-Motion Predictions (4W)****09.00 – 10.30**

| Paper No. | Presentation only (P) or Written Paper (W) | Paper Title                                                                                       | Author Name                                                            | Author Affiliation                                                                                                           | Author e-mail                                                                                                                                                                                                                                                                                        |
|-----------|--------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28031     | W                                          | Global Hydroelastic Response Of a Catamaran due to Wet-deck Slamming accounting for Forward Speed | Chunhua Ge, Odd M. Faltinsen, Torgeir Moan                             | Norwegian University of Science and Technology                                                                               | <a href="mailto:chunhua@marin.ntnu.no">chunhua@marin.ntnu.no</a><br><a href="mailto:oddfal@marin.ntnu.no">oddfal@marin.ntnu.no</a><br><a href="mailto:tormo@marin.ntnu.no">tormo@marin.ntnu.no</a>                                                                                                   |
| 28477     | W                                          | Random waves and capsize probability based on large amplitude motion analysis                     | Jan O. de Kat, Dirk J. Pinkster, Kevin McTaggart                       | MARIN and DREA                                                                                                               | <a href="mailto:j.o.dekat@marin.nl">j.o.dekat@marin.nl</a><br><a href="mailto:d.j.pinkster@marin.nl">d.j.pinkster@marin.nl</a><br><a href="mailto:kevin.mctaggart@drea.dnd.ca">kevin.mctaggart@drea.dnd.ca</a>                                                                                       |
| 28505     | W                                          | On the effect of water on deck on ship motion                                                     | Dimitris Spanos, Apostolos Papanikolaou, George Tzabiras               | Nat. Tech. Univ. of Athens                                                                                                   | <a href="mailto:spanos@deslab.ntua.gr">spanos@deslab.ntua.gr</a><br><a href="mailto:papa@deslab.ntua.gr">papa@deslab.ntua.gr</a><br><a href="mailto:tzab@fluid.mech.ntua.gr">tzab@fluid.mech.ntua.gr</a>                                                                                             |
| 28592     | W                                          | Prediction of Submarine Forces and Moments Using Neural Networks                                  | Ibrahim Mohamed, Mahmoud Haddara, Christopher Williams, Michael Mackay | Michelin Canada, Memorial University of Newfoundland, Institute for Marine Dynamics, Defence Research Establishment Atlantic | <a href="mailto:ibrahim.mohamed@ca.michelin.com">ibrahim.mohamed@ca.michelin.com</a><br><a href="mailto:mhaddara@engr.mun.ca">mhaddara@engr.mun.ca</a><br><a href="mailto:Christopher.williams@nrc.ca">Christopher.williams@nrc.ca</a><br><a href="mailto:mackay@drea.dnd.ca">mackay@drea.dnd.ca</a> |

**Session 8.8: Wave-Body Interaction & Ship Waves****Session Organizer:** Prof. R.W. Yeung**Session Chair:** Prof. R.W. Yeung**Session Co-Chair:** Prof. M. Haddara

Wednesday

June 26

Session 8.8 Wave-Body Interaction &amp; Ship Waves (4W, 1P)

11.00 – 12.30

| Paper No. | Presentation only (P) or Written Paper (W) | Paper Title                                                                             | Author Name                                              | Author Affiliation                                | Author e-mail                                                                                                                                                                                                                                                      |
|-----------|--------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28141     | W                                          | Reflection And Transmission Of Ship Waves By Floating Barriers                          | Allen T. Chwang, Quanming Miao                           | The University of Hong Kong                       | <a href="mailto:atchwang@hkucc.hku.hk">atchwang@hkucc.hku.hk</a><br><a href="mailto:gmmiao@hkusua.hku.hk">gmmiao@hkusua.hku.hk</a>                                                                                                                                 |
| 28490     | W                                          | Wave trapping by axisymmetric concentric cylinders                                      | Ben J. Shipway, David V. Evans                           | University of Bristol                             | <a href="mailto:b.shipway@bris.ac.uk">b.shipway@bris.ac.uk</a><br><a href="mailto:d.v.evans@bris.ac.uk">d.v.evans@bris.ac.uk</a>                                                                                                                                   |
| 28510     | W                                          | Spectral Analysis of Ship-Generated Waves in Finite-Depth Water                         | Carl A. Scragg                                           | SAIC                                              | <a href="mailto:Carl.A.Scragg@SAIC.com">Carl.A.Scragg@SAIC.com</a>                                                                                                                                                                                                 |
| 28481     | W                                          | An Alternative Integral Representation of Ship Waves                                    | Francis Noblesse, Chi Yang, Dane Hendrix, Rainald Lohner | David Taylor Model Basin, George Mason University | <a href="mailto:NoblesseFL@nswccd.navy.mil">NoblesseFL@nswccd.navy.mil</a><br><a href="mailto:cyang@gmu.edu">cyang@gmu.edu</a><br><a href="mailto:hendrixdm@nswccd.navy.mil">hendrixdm@nswccd.navy.mil</a><br><a href="mailto:rlohner@gmu.edu">rlohner@gmu.edu</a> |
| 28543     | P                                          | Radiation of water waves from an oscillating source located at a slope of angle $\pi/4$ | P.A. Tyvand, K.B. Haugen                                 | Agricultural Univ. of Norway                      | <a href="mailto:peder.tyvand@itf.nlh.no">peder.tyvand@itf.nlh.no</a>                                                                                                                                                                                               |

**Session 8.9: Higher-Order Effects**  
**Session Organizer:** Dr. S.K. Chakrabarti  
**Session Chair:** Prof. A. Papanikolaou  
**Session Co-Chair:** Dr. Jan O. de Kat

Wednesday  
June 26

Session 8.9 Higher-Order Effects (4W)

14.00 – 15.30

| Paper No. | Presentation only (P) or Written Paper (W) | Paper Title                                                                           | Author Name                                                       | Author Affiliation                          | Author e-mail                                                                                                                                                                                                                                                                                        |
|-----------|--------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28442     | W                                          | Wave-Drift Added Mass of a Cylinder Array Free to respond to the Incident Waves       | Weiguang Bao, Takeshi Kinoshita, Motoki Yoshida, Mazuko Ishibashi | University of Tokyo                         | <a href="mailto:wbao@iis.u-tokyo.ac.jp">wbao@iis.u-tokyo.ac.jp</a><br><a href="mailto:kinoshit@iis.u-tokyo.ac.jp">kinoshit@iis.u-tokyo.ac.jp</a><br><a href="mailto:yoshudam@iis.u-tokyo.ac.jp">yoshudam@iis.u-tokyo.ac.jp</a><br><a href="mailto:ishi@iis.u-tokyo.ac.jp">ishi@iis.u-tokyo.ac.jp</a> |
| 28473     | W                                          | Floating Thin Sheet in Waves; Drift Force, Drift Velocity and Wave Damping            | Choung Mook Lee, Kwan Hyoung Kang                                 | Pohang University of Science and Technology | <a href="mailto:cmlee@postech.edu">cmlee@postech.edu</a><br><a href="mailto:khkang@postech.edu">khkang@postech.edu</a>                                                                                                                                                                               |
| 28521     | W                                          | Fully non linear spectral/BEM solution for irregular wave interactions with a 3D body | Pierre FERRANT, David Le Touzé                                    | Ecole Centrale de Nantes                    | <a href="mailto:pierre.ferrant@ec-nantes.fr">pierre.ferrant@ec-nantes.fr</a><br><a href="mailto:david.letouze@ec-nantes.fr">david.letouze@ec-nantes.fr</a>                                                                                                                                           |
| 28496     | W                                          | Nonlinear interaction of submerged cylinder with free surface                         | Nikolai I. Makarenko                                              | Lavrentiev Institute of Hydrodynamics       | <a href="mailto:makarenko@hydro.nsc.ru">makarenko@hydro.nsc.ru</a>                                                                                                                                                                                                                                   |

**Session 8.10: Opening Preliminaries/Nonlinear Wave-Body Effects****Session Organizer:** Prof. R.C. Ertekin**Session Chair:** Prof. J.P. Breslin**Session Co-Chair:** Prof. Sergio H. SphaierTuesday  
June 25

Session 8.10 Opening Preliminaries/Nonlinear Wave-Body Effects (3W)

09.00 – 10.30

| Paper No. | Presentation only (P) or Written Paper (W) | Paper Title                                                                                             | Author Name                         | Author Affiliation                   | Author e-mail                                                                                                                                                    |
|-----------|--------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28526     | W                                          | On the occurrence of strong higher harmonic wave forces and induced ringing loads on vertical cylinders | John Grue, Morten Huseby            | University of Oslo                   | <a href="mailto:johnng@math.uio.no">johnng@math.uio.no</a><br><a href="mailto:mhuseby@math.uio.no">mhuseby@math.uio.no</a>                                       |
| 28533     | W                                          | A Perfectly Transparent Spectral-Shell for Unsteady Wave-Body Interactions                              | J. Andrew Hamilton, Ronald W. Yeung | University of California at Berkeley | <a href="mailto:andy@stokes.oe.berkeley.edu">andy@stokes.oe.berkeley.edu</a><br><a href="mailto:rwyeung@socrates.Berkeley.edu">rwyeung@socrates.Berkeley.edu</a> |
| 28590     | W                                          | ANALYSIS OF STEEP BREAKING AND NON-BREAKING WAVES AND THEIR EFFECTS ON STRUCTURES                       | Subrata Chakrabarti                 | Offshore Structure Analysis, Inc.    | <a href="mailto:chakrab@aol.com">chakrab@aol.com</a>                                                                                                             |