



Workshop Program

USQ Toowoomba, 10 – 12 November 2021

Program

Only the names of presenters are shown in the Program.
The names of all authors of each talk can be found in the file “Abstracts”

Day 1, Wednesday, 10 November

9:00 – 9:15, Workshop opening and general information (John Bell, Yury Stepanyants, Michael Meylan)

Session 1, Chairperson: Mike Meylan (Newcastle, Australia)

- (1) 9:15 – 10:00, Alexander Korobkin (University of East Anglia, Norwich, UK), “Impact onto a circular floating viscoelastic plate” (plenary talk)
- (2) 10:00 – 10:25, Tatyana Khabakhpasheva (University of East Anglia, Norwich, UK), “2D problem of the impact onto cracked ice floe”
- (3) 10:25 – 10:50, Alessandro Toffoli (Melbourne, Australia), “Three-dimensional imaging of waves in the marginal ice zone during an explosive cyclone”
- (4) 10:50 – 11:15, Nicolas Mokus (Otago, New Zealand), “Modelling the wave-induced fragmentation of a sea ice cover”
- (5) 11:15 – 11:40, Trilochan Sahoo (Kharagpur, India), “Scattering of flexural gravity wave due to two articulated submerged plates within the framework of blocking dynamics”
- (6) 11:40 – 12:05, Santu Das (Guwahati, India). “Sea ice and interfacial deflection within the frequency band of blocking in a stratified ocean”

Lunch break: 12:05 – 14:00

Session 2, Chairperson: Trilochan Sahoo (Kharagpur, India)

- (7) 14:00 – 14:25, Balaje Kalyanaraman (Newcastle, Australia), “Wave induced motion of icebergs”
- (8) 14:25 – 14:50, Susam Boral (Kharagpur, India), “Modulation instability of hydro-elastic waves blown by a wind with a uniform vertical profile”
- (9) 14:50 – 15:15, Jordan Pitt (Adelaide, Australia), “Onset of overwash of floes”
- (10) 15:15 – 15:40, Alexey Slunyaev (Nizhny Novgorod, Russia), “Nonlinear modulation property of flexural-gravity waves on a water surface covered by a compressed ice sheet”
- (11) 15:40 – 16:05, Franz von Bock und Polach (Germany), “A new model ice tested with transient wave packages”

16:30 – 18:00, Welcome reception, Tea Room D209, Block D, USQ

Day 2, Thursday, 11 November

Session 3, Chairperson: Alessandro Toffoli (Melbourne, Australia)

- (12) 9:00 – 9:25, Siming Zheng, (Plymouth, UK), “Water wave interaction with a floating elastic disk-shaped wave energy converter”
- (13) 9:25 – 9:50, Luofeng Huang (London, UK), “Recent advances in computational modelling of sea ice”
- (14) 9:50 – 10:15, Lev Ostrovsky (Boston, USA), “Nonlinear acoustic effects due to cracks in ice cover”
- (15) 10:15 – 10:40, Joey Voermans (Melbourne, Australia), “Comparison of wave observations in landfast ice against wave-ice models”
- (16) 10:40 – 11:05, Josh Kousal (Melbourne, Australia), “A two-part attenuation and break-up model for wave-sea ice interaction”
- (17) 11:05 – 11:30, Montiel Fabien (Otago, New Zealand), “Physical drivers of wave attenuation in the marginal ice zone”
- (18) 11:30 – 11:55, Pawan Negi (Kharagpur, India), “Scattering of oblique waves by a semi-infinite floating ice-sheet within the framework of wave blocking in shallow water”
- (19) 11:55 – 12:20, Haripriya Sahoo (Kattankulathur, India), “Boundary element method for wave trapping by a floating porous box near a rigid wall”

Lunch break: 12:20 – 14:00

Session 4, Chairperson: Luke Bennetts (Adelaide, Australia)

- (20) 14:00 – 14:25, Mike Meylan (Newcastle, Australia), “The current state of modelling wave scattering by sea ice”
- (21) 14:25 – 14:50, Konstantin Shishmarev (Barnaul, Russia), “Effect of a linearly varying ice thickness on hydroelastic waves in a frozen channel”
- (22) 14:50 – 15:15, Izolda Sturova (Novosibirsk, Russia), “The Cauchy–Poisson problem in water with a compressed ice-cover in the presence of a shear current”
- (23) 15:15 – 15:40, Sergey Badulin (Moscow, Russia), “Ship-type waves on a floating ice plate”
- (24) 15:40 – 16:05, Efim Pelinovsky (Nizhny Novgorod, Russia), “Modeling of the 2013 meteorite entry in ice-covered Chebarkul Lake, Russia: Navier–Stokes framework”

Day 3, Friday, 12 November

Session 5, Chairperson: Montiel Fabien (Otago, New Zealand)

- (25) 9:00 – 9:25, Nurbek Tazhimbetov (USA), “Simulation of flexural-gravity wave response of geometrically complex ice shelves to ocean waves and tides”
- (26) 9:25 – 9:50, Shuo Li (Australia), “Numerical modelling of wave impact on sea ice”
- (27) 9:50 – 10:15, Jie Liang (Adelaide, Australia), “Ocean wave to ice shelf transfer functions for Antarctic ice shelves”
- (28) 10:15 – 10:40, Saravanan Gurusamy (Kharagpur, India), “Nonlinear liquid sloshing and damping of deep-water sloshing”
- (29) 10:40 – 11:05, Sunil Barman (Kharagpur, India), “Blocking dynamics of flexural gravity waves in a three-layer fluid”
- (30) 11:05 – 11:30, Kottala Panduranga (Hyderabad, India), “Water wave scattering by a floating viscoelastic plate over an undulated seabed”

- (31) 11:30 – 11:55, Alessandro Toffoli (Melbourne, Australia), “Interactions between irregular wave fields and sea ice: A physical model for wave attenuation and ice break up”
- (32) 11:55 – 12:20, Nikita Naik (Kattankulathur, India), “Effects of undulated bottom and sloping wall on dual OWC chambers”

Lunch break: 12:20 – 14:00


Session 6, Chairperson: Yury Stepanyants (Toowoomba, Australia)

- (33) 14:00 – 14:25, Sasan Tavakoli (Melbourne, Australia), “Improvement of wave-ice interaction models”
- (34) 14:25 – 14:50, Nazile Disibuyuk (Izmir, Turkey), “Hydro-elastic wave loads on multiple vertical cylinders”
- (35) 14:50 – 15:15, Grigory Khazanov (Nizhny Novgorod, Russia), “Wave tank and numerical modeling of the damping of gravity waves due to ice floes”
- (36) 15:15 – 15:40, Yuriy Semenov (Kyiv) “Nonlinear effects of ice/fluid/structure interaction”
- (37) 15:40 – 16:05, Piotr Rozmej (Zielona Góra, Poland), “Boussinesq equations for (2+1)-dimensional surface gravity waves in an ideal fluid model”

16:05 – 16:30, Workshop closing (discussion, comments, suggestions, perspectives)

For the attention of all participants:

You are welcome to submit your papers to the special issue of the journal “Water”:



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Ocean Wave Interaction with Ice Cover and Other Flexible and Porous Structures

Guest Editors
Prof. Yury Stepanyants, Assoc. Prof. Mike Meylan, Prof. Trilochan Sahoo

Deadline
30 ~~June~~ 2021
November

Special Issue

mdpi.com/si/58694 **Invitation to submit**

Conference dinner, 19:00 – 21:00

Workshop Organisers are thankful to the Sponsors for the financial support:

