

**Mon 12 Nov, Entrance 1**

13:30 information desk opens
 14:00 student activities start
 18:00 student activities end
 18:00 registration desk opens
 19:30 desks close

Mon 12 Nov, Grand Ballroom

19:30 icebreaker starts

Mon 12 Nov, Theatre

18:00 instructions for session chairpersons
 19:00 upload facility opens for Tuesday speakers
 21:00 upload facility closes for Tuesday speakers

Mon 12 Nov, Sun Room

SevenCs ENC demonstration

Mon 12 Nov, 2e Katendrechtse Haven (across the parking lot)

14:00 demonstrations for students MS Scheurak (Rijkswaterstaat)
 18:00 end of business

Tue 13 Nov, Theatre

9:00 Opening session welcome
 9:10 IFHS introduction
 9:17 HSB introduction
 9:25 **opening address**
 9:50 intermezzo
 10:05 **keynote 1**
 10:45 *break*
 11:15 activity pitches
 11:35 session 1 welcome
 11:40 oral 1.1
 12:00 oral 1.2
 12:20 oral 1.3
 12:40 oral 1.4
 13:00 *lunch break*
 14:00 session 2 welcome
 14:05 oral 2.1
 14:25 oral 2.2
 14:45 oral 2.3
 15:05 oral 2.4
 15:25 oral 2.5
 15:45 *break*
 16:15 session 3 welcome
 16:20 oral 3.1
 16:40 oral 3.2
 17:00 oral 3.3
 17:20 oral 3.4
 17:40 oral 3.5
 18:00 end of business

The story of SS Rotterdam
From seafloor geomorphology to predictive habitat mapping ...

90 second pitches of tutorials, demonstrations, and excursions
Careful marine planning I
 Beyond bathymetry - coastal marine mapping
 Suitability mapping for renewable energy potential in the North Sea ...
 Flexible Disposal Strategy ...
 Managing bathymetric data in a hydrographic survey company ...

Smart data management
 High precision hydrography in Canada, ...
 Assessing the Impact of INSPIRE on Related EU Marine Directives
 Key elements of Remote Offshore Survey Operations
 Maritime Source Data Collection, Management and Integration
 The Development of New Data Quality Visualisation Methods ...

Innovations in processing techniques
 Is Multibeam Water Column Data Really Worth the Disk Space?
 Calibration of vessel mounted LIDAR
 The Progression of Multi-Dimensional Water Column Analysis ...
 River bed classification using multibeam echosounder backscatter data
 Grid Models versus TIN ...

Thaienne van Dijk (Chairwoman Hydro12 OC)
 Aubrey Price (Director IFHS)
 Leeke van der Poel (Chairman HSB)
 Robert Ward (President IHO)
 TBA
 Peter Harris (Geoscience Australia) paper 70
 Simon Salter, Owen Cantrill, Frank Köster, Jani Pötrönen
 Rob van Ree (session chair)
 Travis Mason (National Oceanography Centre) paper 43
 Alain de Wulf (University of Ghent) paper 58
 Davy Depreiter (IMDC) paper 30
 Duncan Mallace (NetSurvey) paper 56
 Terje Thorsnes (session chair)
 Richard Sanfaçon (Canadian Hydrographic Service) paper 04
 Roger Longhorn (EUCC) paper 40
 Boudewijn Possel (Fugro) paper 41
 John Klippen (Jeppesen) paper 55
 Sam Harper (UKHO)
 Maarten-Jan Theijs (session chair)
 Lindsay Gee (QPS) paper 18
 Nicolas Seube (ENSTA) paper 60
 Corey Collins (CARIS) paper 22
 Niels Kinneging (Rijkswaterstaat) paper 21
 Alain de Wulf (University of Ghent) paper 64

Tue 13 Nov, Queen's lounge, Atlantic Promenade, Glass Enclosed Promenade

11:00 Exhibition opening ceremony
 11:05 stands open
 18:00 end of business

TBA

Tue 13 Nov, Main deck office room

14:00 tutorial 1
 14:45 *break*
 15:00 tutorial 2
 15:45 *break*
 16:00 tutorial 3
 17:00 *break*
 17:15 tutorial 4
 18:00 end of business

How deep will the water be?
 The CARIS Engineering Analysis Module ...
 Open IHO Data Quality Working Group meeting
 High Resolution Multibeam Survey and Mobile Laser Scanning ...

Simon Salter (Chersoft) paper 08
 Owen Cantrill (Maritime Safety Queensland) paper 29
 Leendert Dorst (vice-chairman)
 Jani Pötrönen (Meritaito) paper 39

Tue 13 Nov, 2e Katendrechtse Haven (across the parking lot)

14:00 demonstrations 1
 Hondius (DAB Vloot, Belgium)
 survey vessel (Braveheart Shipping)
 survey vessel (Geometius)
 survey vessel (Stema Systems)
 survey launch (Port of Rotterdam)
 survey launch (Seabed)
 18:00 end of business

Tue 13 Nov, excursions

10:00 partner programme departs
 18:00 partner programme returns

Wed 14 Nov, Theatre

9:00 session 4 welcome
 9:05 **keynote 2**
 9:35 oral 4.1
 9:55 oral 4.2
 10:15 oral 4.3
 10:35 poster pitches
 10:45 *break*
 11:15 session 5 welcome
 11:20 oral 5.1
 11:40 oral 5.2
 12:00 oral 5.3
 12:20 oral 5.4
 12:40 oral 5.5
 13:00 *lunch break*
 14:00 session 6 welcome
 14:05 **keynote 3**
 14:45 oral 6.1
 15:05 oral 6.2

Accurate hydrodynamics I
40 years back and forth
 Lowest Astronomical Tide in the North Sea ...
 Accurate water levels using PREMO ...
 Results of operational sea-wave monitoring with radar gauges
 90 second pitches of today's poster presentations

Geophysics of the marine environment I
 Fluid mud density determination in navigational channels
 Sediment waves: geohazard or geofeature?
 Quantified sea-bed dynamics of the Netherlands Continental Shelf ...
 Monitoring of silt content in sediments off the Dutch Coast
 Application of high resolution acoustics ...

Subsea positioning
Is Hydrography keeping up in the Facebook world of today?
 Innovative Positioning System Integration ...
 INS aided subsurface positioning for ROV surveys

Leendert Dorst (session chair)
 Steve Shipman (retired)
 Cornelis Slobbe (Delft University of Technology) paper 17
 Micheline Hounjet (Deltares) paper 52
 Sebastian Rütten (BfG) paper 23
 Richard Sanfaçon, John Klippen, José Bartolomeu Ferreira
 Fontes, Lars Schiller, Nicolas Seube, Axel Annaert
 Vera van Lancker (session chair)
 Stijn Claeys (Flanders Hydraulic Research) & Ben Dierikx
 (Rijkswaterstaat) paper 32
 Victoria Putans (P.P. Shirshov Institute of Oceanology RAS) paper 42
 Sytze van Heteren (TNO) paper 66
 Koos de Vries (Medusa) paper 01
 Coen Werner (Stema Survey) paper 24
 Wilbert Brink (session chair)
 Mark Heine (Fugro)
 Bart-Jan Ruesink (Geocon) paper 16
 Michiel van de Munt (Allseas) paper 45

15:25 oral 6.3	Positioning Small AUVs for Deeper Water Surveys ...	Tom Hiller (Teledyne)	paper 38
15:45 <i>break</i>			
16:15 <u>session 7 welcome</u>	<u>Innovations in acquisition techniques</u>	Alain de Wulf (session chair)	
16:20 oral 7.1	Satellite remote sensing and coastal sediment monitoring ...	Henry Odunsi (Earth Info Services)	paper 02
16:40 oral 7.2	Utility of Airborne Lidar Bathymetry in Extreme ... Environments ...	Don Ventura (Fugro)	paper 69
17:00 oral 7.3	Hydrodynamic data from radar observations	Caroline Gautier (Deltares)	paper 31
17:20 oral 7.4	Deepwater Dredging and Maintenance in the Offshore industry	Ellen Stuijbergen (RESON)	paper 59
17:40 oral 7.5	Determining rock quantities using swathe techniques on Maasvlakte 2	Huibert-Jan Lekkerkerk (Port of Rotterdam)	paper 19
18:00 <i>end of business</i>			

Wed 14 Nov, Queen's lounge, Atlantic Promenade, Glass Enclosed Promenade

9:00 stands open			
10:45 poster 1.1	Backscatter "From ping to Database" ...	Richard Sanfaçon (Canadian Hydrographic Service)	paper 05
10:45 poster 1.2	Digital Mariners Routing Guide ...	John Klippen (Jeppesen)	paper 27
10:45 poster 1.3	Deepening of the Port of Santos – Brazil ...	José Bartolomeu Ferreira Fontes (Consórcio Draga Brasil)	paper 34
10:45 poster 1.4	A Comprehensive Definition and Systematic Subdivision of Hydrography	Lars Schiller (HafenCity University Hamburg)	paper 49
10:45 poster 1.5	International Cooperation in Education ...	Nicolas Seube (ENSTA)	paper 63
10:45 poster 1.6	Hydrographic Training in Belgium	Axel Annaert (Antwerp Maritime Academy)	paper 65
18:00 <i>end of business</i>			

Wed 14 Nov, Main deck office room

10:00 tutorial 5	TBA		
10:45 <i>break</i>			
11:15 tutorial 6	TBA		
12:00 <i>break</i>			
12:15 tutorial 7	TBA		
13:00 <i>lunch break</i>			
15:00 tutorial 8	Integrated Bathymetric Data Management ...	Frank Köster (Hamburg Port Authority)	paper 33
15:45 <i>break</i>			
16:15 tutorial 9	TBA		
17:00 <i>break</i>			
17:15 tutorial 10	TBA		
18:00 <i>end of business</i>			

Wed 14 Nov, 2e Katendrechtse Haven (across the parking lot)

10:00 demonstrations 2	Hondius (DAB Vloot, Belgium) survey vessel (Braveheart Shipping) survey vessel (Geometius) survey vessel (Stema Systems) survey launch (Port of Rotterdam) survey launch (Seabed)
13:00 <i>lunch break</i>	
15:00 demonstrations 3	idem
18:00 <i>end of business</i>	

Wed 14 Nov, excursions

10:00 partner programme departs
18:00 partner programme returns

Wed 14 Nov, Odyssey Room

19:00 conference dinner

Thu 15 Nov, Theatre

9:00 <u>session 8 welcome</u>	<u>Geophysics of the marine environment II</u>	Thaienne van Dijk (session chair)	
9:05 keynote 4	MAREANO - an integrated national seabed mapping program ...	Terje Thorsnes (Geological Survey of Norway)	
9:45 oral 8.1	Sediment vs topographic micro-roughness ...	Ruggero Capperucci (University of Bremen)	paper 47
10:05 oral 8.2	High-resolution geophysical survey ...	Ane Wiersma (Deltares)	paper 48
10:25 oral 8.3	A lithological and morphological map ...	Mieke Mathys (IMDC)	paper 67
10:45 poster pitches	90 second pitches of today's poster presentations	José Bartolomeu Ferreira Fontes, John Klippen, Mark Bollen, Tom Hiller, Hugh Parker, B. Aguiar-González	
10:55 <i>break</i>			
11:15 <u>session 9 welcome</u>	<u>Accurate hydrodynamics II</u>	Niels Kinneging (session chair)	
11:20 oral 9.1	The SBW Field Measurement Programme	Ivo Wenneker (Deltares)	paper 13
11:40 oral 9.2	High resolution topo-bathymetric and flow measurements ...	Yves Plancke (Antwerp Maritime Academy)	paper 25
12:00 oral 9.3	Creating a Current Atlas for the Port of Zeebrugge	Jeroen Aardoom (Aqua Vision BV)	paper 12
12:20 oral 9.4	Computer-aided quality assurance ...	Hartmut Hein (BfG)	paper 28
12:40 oral 9.5	A New Coastal Flood Forecasting System for the Netherlands	Simone de Kleermaeker (Deltares)	paper 44
13:00 <i>lunch break</i>			
14:00 <u>session 10 welcome</u>	<u>Hydrographic training & Careful marine planning II</u>	Steve Shipman (session chair)	
14:05 oral 10.1	Inland Electronic Navigation Chart production ...	Jasmine Dumollin (Agency for Maritime and Coastal Services)	paper 20
14:25 oral 10.2	Degrees of success ...	Richard Thain (Plymouth University)	paper 07
14:45 oral 10.3	A new framework for the FIG/IHO/ICA Standards of Competence ...	Gordon Johnston (Venture Geomatics)	paper 53
15:05 oral 10.4	Recruiting and Training for the Future ...	Derrick Peyton (IIC Technologies)	paper 09
15:25 oral 10.5	Towards more attractivity for hydrographic surveying course ...	Nicolas Seube (ENSTA)	paper 61
15:45 <i>end of business</i>			

Thu 15 Nov, Grand Ballroom

16:15 <u>Closing ceremony welcome</u>	Thaienne van Dijk (Chairwoman Hydro12 OC)
16:20 un événement joyeux	
16:30 Best student paper award	Leeke van der Poel (Chairman HSB)
16:35 Best paper award	Leeke van der Poel (Chairman HSB)
16:40 announcement of Hydro14	Aubrey Price (Director IFHS)
16:50 farewell	Thaienne van Dijk (Chairwoman Hydro12 OC)
16:55 festive closure	
17:30 <i>end of business</i>	

Thu 15 Nov, Queen's lounge, Atlantic Promenade, Glass Enclosed Promenade

9:00 stands open			
10:45 poster 2.1	Survey and Dredge in ... Volcanic open sea Island ...	José Bartolomeu Ferreira Fontes (Consórcio Draga Brasil)	
10:45 poster 2.2	NHS – MINTEC, Print on demand system	John Klippen (Jeppesen)	
10:45 poster 2.3	Plume Measuring Techniques for Dredging Works: the SiltProfiler	Mark Bollen (IMDC)	
10:45 poster 2.4	Measuring Bathymetric Uncertainty of the Edgetech 4600 Sonar	Lisa Nicole Brisson (EdgeTech)	paper 37
10:45 poster 2.5	System integration of LiDAR Bathymetry sensors ...	Hugh Parker (Fugro)	
10:45 poster 2.6	Observations of inertial oscillations affected by mesoscale activity ...	B. Aguiar-González (University of Las Palmas)	
16:15 <i>end of business</i>			

Thu 15 Nov, Main deck office room

10:00 tutorial 11	TBA
10:45 <i>break</i>	
11:15 tutorial 12	TBA
12:00 <i>break</i>	
12:15 tutorial 13	TBA
13:00 <i>lunch break</i>	
14:00 tutorial 14	TBA
14:45 <i>break</i>	
15:00 tutorial 15	TBA
15:45 <i>end of business</i>	

Thu 15 Nov, 2e Katendrechtse Haven (across the parking lot)

10:00 demonstrations 4	Hondius (DAB Vloot, Belgium) survey vessel (Braveheart Shipping) survey vessel (Geometius) survey vessel (Stema Systems) survey launch (Port of Rotterdam)
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13:00 *lunch break*
14:00 demonstrations 5
16:15 *end of business*

survey launch (Seabed)
idem

Thu 15 Nov, excursions

10:00 partner programme departs
16:15 partner programme returns

Fri 16 Nov, Main deck office room

NSHC Resurvey Working Group meeting

Fri 16 Nov, excursions

9:00 visit Maasvlakte II departs
9:00 visit Sand Engine departs
15:00 visit Maasvlakte II returns
15:00 visit Sand Engine returns