

Exhibition is open on Tuesday, Wednesday 08:30 – 18:00, Thursday 08:30 - 15:00

Tuesday, 5 Nov 2024

Auditorium A

- 08:00 Registration and exhibition open
- Opening ceremony**
Chair: Thomas Dehling
- 09:00 Opening addresses:
Thomas Dehling:
DHyG (German Hydrographic Society)
David Vincentelli:
IFHS (International Federation of Hydrographic Societies)
Daniela Kluckert:
BMDV (Federal Ministry for Digital and Transport)
Helge Heegewaldt:
BSH (Federal Maritime and Hydrographic Agency)
Mathias Jonas:
IHO (International Hydrographic Organisation)
- Keynote: Xavier Lurton: Backscatter measurements by hydrographic multibeam echo sounders
- 10:30 Exhibition opening / break
- Opening talks (1A)**
Chair: Thomas Dehling
- 11:10 **Jacob Geersen:**
A submerged stone age hunting architecture from the Western Baltic Sea
- 11:35 **Natalie Cornish:**
Nippon Foundation – GEBCO Seabed 2030 and the International Bathymetric Chart of the Southern Ocean
- 12:00 **Holger Klindt:**
Marine critical infrastructure – protecting the unseen
- 12:25 Exhibition / break
- Student session (2A)**
Chair: Ellen Heffner
- 13:30 **Kilian Martlage:**
Bathymetry estimation using airborne remote sensing RGB image data
- 13:55 **Mona Reithmeier:**
Mapping and monitoring the global coast
- 14:20 **Annika Walter:**
Global Lakes and Reservoirs - An investigation to which extent dynamic water body shapes have an impact on the estimates of the total water storage derived from GRACE
- 14:45 **IFHS student award**
- 15:10 Exhibition / break
- Optical hydrography I (3A)**
Chair: Patrick Westfeld
- 15:50 **Charles de Jongh:**
Airborne LiDAR bathymetry – advantages and challenges
- 16:15 **David Mader:**
Full-waveform stacking techniques applied to coastal LiDAR bathymetry data
- 16:40 **Gottfried Mandlburger:**
Optical hydrography – the DGPF’s contribution to mapping and monitoring inland coastal waters
- 17:05 **Niels Fuchs:**
Bathymetry of sea ice melt ponds reconstructed from aerial photographs using shallow water photogrammetry
- 17:30 End of session

Auditorium B

- Data fusion and management (3B)**
Chair: David Vincentelli
- 15:50 **Michael Kowalczyk:**
Hydro Portal: Enhancing hydrographic data management in the port of Hamburg
- 16:15 **Jann Wendt:**
Cloud and AI technologies are revolutionizing hydrography – The cloud-native TrueOcean platform
- 16:40 **Gunnar Tietze:**
Fusing navigation: ECDIS, drones flights and aviation
- 17:05 **Peer Fietzek:**
Augmenting ocean data collection operations and enhancing information generation with Blue Insight
- 17:30 End of session

Exhibition is open on Tuesday, Wednesday 08:30 – 18:00, Thursday 08:30 - 15:00

Wednesday, 6 Nov 2024

Auditorium A

- 08:30 Registration and exhibition open
- New trends in positioning (4A)**
Chair: Annette Scheider
- 09:00 **Anja Heßelbarth:**
Potential of low-cost GNSS and satellite-based correction data for hydrographic surveying
- 09:25 **Hans Visser:**
Fugro Marinestar GNSS PPP service enhancements in 2024
- 09:50 **Fickrie Muhammad:**
An appraisal of backscatter removal and refraction calibration models for improving the performance of vision-based mapping and navigation in shallow underwater environments
- 10:15 Exhibition / break
- Harbors and inland waters (5A)**
Chair: Thomas Artz
- 10:45 **David Rossi:**
Mapping arctic lakes: A challenge for the 79°N parallel
- 11:10 **Jannis Gangelhoff:**
Ultra-compact bathymetric measurement system with processing chain for surveying shallow water bodies
- 11:35 **Markus Kraft:**
Merging underwater MBES pointcloud and 360° camera imagery into georeferenced 3D-Model of urban waterways and harbour infrastructure
- 12:00 **Pawel Pocwiardowski:**
CATZOC mapping in layered media
- 12:25 Exhibition / break
- Environmental and habitat mapping (6A)**
Chair: Peter Feldens
- 13:30 **Xavier Lurton:**
Taking into account more simply the environmental impact of hydrographic echo sounders
- 13:55 **Terje Thorsnes:**
Hydrographic data from survey design to final habitat maps in the Norwegian seabed mapping programme MAREANO
- 14:20 **Jens Schneider von Deimling:**
Unveiling complex seafloor environments: Expanding the potential of multibeam echo sounders (MBES)
- 14:45 **Jason-Zois Gazis:**
Machine learning and backscatter for spatial mapping of deep-sea polymetallic nodules
- 15:10 Exhibition / break
- Autonomy I (7A)**
Chair: Boris Schulze
- 15:50 **Rui Miguel Cândido:**
REPMUS: a catalyst for innovation in uncrewed hydrography
- 16:15 **Doreen Thoma:**
Maritime innovation and new technologies for future navigation and communication
- 16:40 **Mona Lütjens:**
True autonomy in offshore wind operations and maintenance
- 17:05 **Tom Schmidt:**
Transfer of autonomous mapping concepts to a small uncrewed surface vehicle
- 17:30 End of session

Auditorium B

- 08:30 Registration and exhibition open
- Underwater infrastructure and monitoring (4B)**
Chair: Huibert-Jan Lekkerkerk
- 09:00 **Jannis Gangelhoff:**
Advancing underwater inspection: High resolution pulsed time-of-flight laser scanning
- 09:25 **Annika Walter:**
Underwater laser scanning: Integration and testing on a survey vessel
- 09:50 **Jens Wunderlich:**
Combined technologies for 3D cable tracking: Integrated data acquisition of a 3D sub-bottom profiler and an array of magnetometers
- 10:15 Exhibition / break
- Education (5B)**
Chair: Harald Sternberg
- 10:45 **Derrick Peyton:**
Cat A, Cat B or... next individual certification!
- 11:10 **Alain De Wulf:**
Lessons learned from the enhanced Belgian E-Learning-oriented IBSC certified "Hydrographic Surveying Cat. B" Program
- 11:35 **Thomas Kersten:**
DVocean Digital – a surveying vessel for simulating bathymetric measurements
- 12:00 Panel discussion
- 12:25 Exhibition / break
- OceanCon - Research (6B)**
Chair: Uwe von Lukas
- 13:30 **Sascha Krohmann:**
Innovation through applied research: Testing & development of hydrographic innovations within the Digital Ocean Lab
- 13:55 **Sebastian Bader:**
Model-based underwater object detection and probabilistic digital twins
- 14:20 **Sven Junga:**
Highly parallel Lattice Boltzmann simulation of an underwater testing site
- 14:45 **Daniel Stepputtis:**
Smart fishing (Jens)
- 15:10 Exhibition / break
- Water column analysis (7B)**
Chair: Marc Roche
- 15:50 **Andreas Hermann:**
Hydrography on Fishing Vessels (HyFiVe): A new monitoring system enables cost-effective and scalable ocean monitoring
- 16:15 **Malek Singer:**
Benthic habitat mapping using airborne topo-bathymetric LiDAR – a case study in Lake Superior
- 16:40 **Katja Richter:**
Quantification of water turbidity by volumetric analysis of LiDAR bathymetry data
- 17:05 **Arnau Carrera Vinas:**
Using AUVs for measuring sedimentation processes in reservoirs
- 17:30 End of session

19:00 - Buffet reception

Exhibition is open on Tuesday, Wednesday 08:30 – 18:00, Thursday 08:30 - 15:00

Thursday, 7 Nov 2024

Auditorium A

- 08:30 Registration and exhibition open
- Autonomy II (8A)**
 Chair: Jens Wunderlich
- 09:00 **Knut Hartmann:**
 International cooperations on satellite-derived bathymetry - SDBPT
- 09:25 **Jan Rhomberg-Kauert:**
 Automatic aquatic vegetation detection using airborne bathymetric LiDAR and high dimensional data analysis
- 09:50 **Peter Feldens:**
 Boulders on the seafloor: Automatic detection, importance and challenges
- 10:15 Exhibition / break
- Optical hydrography II (9A)**
 Chair: Gottfried Mandlbürger
- 10:45 **Ramona Baran:**
 15 years practical experience in airborne laser bathymetry - project examples for continued sensor development and survey demands on data processing
- 11:10 **Peter Grabbert:**
 Satellite imagery for intelligent hydrographic resource planning
- 11:35 **Laure-Anne Gueguen:**
 Lab experiment for simultaneous reconstruction of water surface and bottom with a synchronized camera rig
- 12:00 **Christian Mulsow:**
 Methods for geometric modelling of refraction in photo-bathymetry
- 12:25 Exhibition / break
- Quality aspects of MBES measurements (10A)**
 Chair: Xavier Lurton
- 13:30 **Samuel Deleu:**
 The Belgian Kwinte reference area. Part A: a bathymetric reference area for quality control of shallow water multibeam echo sound
- 13:55 **Marc Roche:**
 The Belgian Kwinte reference area. Part B: its use for calibrating backscatter levels of shallow water multibeam echo sounders
- 14:20 **Jean-Guy Nistad:**
 A reevaluation of multibeam beam-steering accuracy
- 14:45 **Bahareh Mohammadivojdan:**
 Enhancing digital bathymetric models by advanced measurement uncertainty analysis
- 15:10 End of session

Auditorium B

- OceanCon - Commercial application (9B)**
 Chair: Sascha Krohmann
- 10:45 **Peter Menzel:**
 Innovation through collaboration: New services and opportunities at and with the Digital Ocean Lab
- 11:10 **Florin Kumin:**
 Underwater close range mapping
- 11:35 **Janne Silden:**
 Innovative quay wall surveys: Leveraging unmanned surface vehicles
- 12:00 **Nico Günzel:**
 Platform-based sensor fusion to improve data quality
- 12:25 Exhibition / break

15:30 - Closing ceremony