

OCEANEXT 2024: SESSION 18: Underwater acoustics: from noise to communication  
Preliminary Programme

**WEDNESDAY 12th June**

**Morning**

8h30: Registration

9h00-9h30 OPENING SESSION

**9h30-10h30 Conference Keynote: Philippe Blondel, University of Bath, United Kingdom**

Marine soundscapes – Human impacts and Blue Economy sustainability in a changing world

Chair: Nils Morozs

Coffee Break 10h30-11h00

**Session 1 (3 papers) - 11h00 - 12h30 - Underwater environment**

Chair: Benoît Parrein

*Application of RAINDROP to assess soundscape changes in a coastal region and assess potential impacts on a resident population of bottlenose dolphins*

*Diana Almeida, Tiago Gomes, Guilherme Vaz, Erica Cruz*

*Toward the monitoring of biofouling Growth in Real Time*

*Ziad Maksassi, Benoît Parrein, Franck Schoefs*

*Design, Validation, and Experimental Evaluation of WAVY Ocean Surface Drifters with hydrophone and echosounder payloads*

*Miguel Candido, Pedro Goncalves, Marco Oliveira, Jose Pinto, Paulo Pinto, Beatrice Tomasi, Rune Øyerhamn*

**Lunch 12h30-14h00**

**Afternoon**

**Session 2 (3 papers) - 14h00 - 16h00 - Localisation, detection and estimation**

Chair: tbc

*Passive localization for Underwater Swarm Vehicles using a Low-cost Acoustic Modem*

*Yuehan Jiang, Bernd-Christian Renner*

*Target detection using underwater acoustic communication signals*

*Lu Shen, Yuriy Zakharov, Benjamin Henson, Nils Morozs, Benoît Parrein, Paul Mitchell*

*Super-resolution estimation of acoustic parameters in shallow waters*

*Chafaa Lyes Abbassen*

Open questions: main challenges regarding “localisation, detection and estimation”

Coffee Break 16h00-16h30

**Session 3 (2 papers) - 16h30 - 18h00 - Underwater acoustic communications**

Chair: tbc

*An innovative Doppler-shift estimation design for underwater acoustic communication modem*

*André Lalevée, Philippe Forjone, Pierre-Jean Bouvet, Léo-Paul Pelletier*

*Massive MIMO Channel Model for Underwater Acoustic Communications*

*Thomas Chové, Christophe Laot, Pierre-Jean Bouvet, Nicolas Le Josse*

Open questions: main challenges regarding “Underwater acoustic communications”

**18h00 Poster session +**

**ICE BREAKER at La Halle 6**

**THURSDAY 13th June**

**Morning**

**9h00 - 10h00 - Conference Keynote Werner Krauss, University of Bremen, Germany**  
(title to be defined)

Coffee Break 10h00 - 10h30

**Session 4 (2 papers) - 10h30 - 11h30 - Underwater acoustic networks**

Chair: Nils Morozs

*Packet Acknowledgement with Cargo Data for JANUS-Based Linear Underwater Acoustic Networks*  
Florian Mahieu, Paul Mitchell, Nils Morozs

Securing Acoustic Networks with DTLS-Enabled IPv6 Adaptation Layer

Corentin Banier, Yousri Lajnef

Open questions: main challenges regarding "Underwater acoustic networks"

**Lunch 12h30-14h00**

**Afternoon**

**14h-15h: Session Keynote Christian Renner, Technical University of Hamburg, Germany**  
Below the Surface: A Journey in Underwater Acoustics

**Session 5 - 15h-17h30 - Workshop on acoustic modems**

Chair: Benoît Parrein, Nils Morozs

Contributors: tbd

(format to be decided)

**19:30 Social Event: Gala Dinner at Cercle Cambronne** (<https://cercle-cambronne.com/>)

**FRIDAY 14th June**

**Morning 10h (only for Session 18)**

**Social Event: Visit of the Muscadet vineyard:** <https://www.domaineduboisjoly.com/>

Back to Nantes around 15h

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