

44th Scandinavian Symposium on Physical Acoustics

Online, 1-2 February 2021

Program of Monday, 1 February

12:00 Opening of the symposium

12:15 1st presentation session

- *Bayesian occupancy grid for active sonar detection and localization of moving targets*
Karl Thomas Hjelmervik (FFI), Kristoffer E. Andreassen, Henrik Berg, Elin M. Bøhler, Dan Henrik S. Stender, Jørn I. Vestgården
- *In situ size estimation of mesopelagic fish swimbladders using narrowband ship-board acoustics*
Rune Øyerhamn (NORCE), Geir Pedersen, Andone Lavery, Michael Jech, Rolf Korneliussen
- *Feature selection based on principal component analysis for underwater source localization by deep learning*
Xiaoyu Zhu (NTNU)
- *Seabed under the Fram Strait*
Nicholas Chotiros (University of Texas at Austin), Gaute Hope, Espen Storheim, Halvor Hobaek, Lee Freitag, Hanne Sagen

13:35 Coffee and discussion break

14:00 2nd presentation session

- *A fast semi-analytical method for propagating leaky Lamb wavefields*
Håvard Kjellmo Arnestad (NTNU), Erlend Magnus Viggen
- *Understanding sound radiation from surface vibrations moving at subsonic speeds*
Erlend Magnus Viggen (NTNU), Håvard Kjellmo Arnestad
- *Complex dispersion properties of lossy and leaky Lamb modes related to Poisson's ratio*
Marianne Solberg (UiB), Magne Aanes, Per Lunde and Magne Vestrheim

15:00 Coffee and discussion break

15:25 3rd presentation session

- *Ultrasonic logging of creeping shale*
Anja Diez (SINTEF), Tonni Franke Johansen, Idar Larsen
- *Determining the inner geometry of a pipe from eccentric pulse-echo measurements*
Mikael Yuan Estuariwinarno (NTNU), Erlend Magnus Viggen
- *Ultrasound measurements in the steel industry*
Shivanandan Indimath (NTNU)

16:25 Program finished

Program of Tuesday, 2 February

10:30–11:00 Annual meeting of the Acoustics Group of the Norwegian Physical Society

12:00 4th presentation session

- *Evaluation of acoustic ambient noise cross-correlations in indoor environments*
Joaquin Aparicio Sosa (UiO), Sverre Holm
- *Diffraction correction for precision measurements of sound velocity in gas. Is full receiver modelling needed?*
Eivind Nag Mosland (UiB), Espen Storheim, Jan Kocbach, Per Lunde, Magne Vestrheim
- *Ultrasonic beam radiation from piston source through water-immersed steel plate using ASM. Pressure-to-pressure transfer function and numerical challenges*
Mathias Sæther (UiB), Per Lunde, Magne Vestrheim

13:00 Coffee and discussion break

13:25 Presentation session for new acoustics students

13:55 5th presentation session

- *Some considerations on PMUTs for medical applications*
Tonni Franke Johansen (SINTEF)
- *Approaching super-resolution imaging with capacitive micromachined ultrasonic transducers*
Sigrid Øygard (Technical University of Denmark), Matthias Bo Stewart, Jørgen Arendt Jensen
- *Ultrasound transducers for harsh environments*
Per Kristian Bolstad (USN)

14:55 Coffee and discussion break

15:20 6th presentation session

- *Early parametric acoustic array studies and some sequels*
Kenneth Foote (Woods Hole Oceanographic Institution)
- *Skating on thin ice and other seismic investigations*
Rowan Romeyn (UiT), Alfred Hanssen, Bent Ole Ruud, Tor Arne Johansen
- *Abel's first paper from 1823 and its significance for power-law attenuation*
Sverre Holm (UiO)

16:20 Closing of the symposium

16:35 Program finished

Instructions for participants

- The symposium will be held using the [Zoom](#) platform. **Please make sure that you have the most recent version of Zoom installed before the symposium**, as some features are not available in older versions.
- To facilitate conversation in the breaks, we will open breakout rooms that you can move between freely. Thus, you can gather in smaller groups like you would at a physical symposium.
- You can use the Chat function to send public messages (e.g., questions to the presentation) or private messages to other participants (e.g., to suggest meeting for a discussion in the break).

Instructions for presenters

- The time between presentations is 20 minutes.
- Limit your talk to 15 minutes, allowing some time for questions and change of presenter.
- We will ask you to hold your presentation via screen sharing. Please ensure that you can share your screen in Zoom before your presentation. We will also have a breakout room available where you can try this out.

Special instructions for student presenters

The student presentation session gives new students an opportunity to present themselves to the community, even without sufficient material for a full talk. The procedure is:

- You are given 3 minutes each to present yourself and your project
- Please prepare a presentation with one or two slides, containing:
 - Your name
 - The title of your project
 - The name(s) of your supervisor(s) and your institution and group
 - Short description of your project: Background, motivation, goals, etc.
 - Results, if you have any