



**Program of the 39th Scandinavian Symposium on Physical Acoustics  
Geilo Hotel, January 31st – February 3rd 2016**

**Sunday, January 31st**

Arrival

**19:00 Dinner is served**

**21:00 Opening in the lecture hall**

21:15 Annual meeting of the Acoustics group of the Norwegian Physical Society

**Monday, February 1st**

**Morning session**

**07:30 Breakfast**

08:15 K. K. Andersen, P. Lunde, and J. Kocbach, UiB, CMR  
"Reciprocity calibration of ultrasonic piezoelectric disks in air"

08:35 Fabrice Prieur, UiO  
"Acoustic cavitation improves penetration of fluorescent probes into tumors in vivo"

08:55 Lars Hoff, HSN  
"The Ultrasound Transducer Lab at HSN"

**09:15 Coffee break**

09:45 Andreas Austeng, UiO  
"Improved ultrasound imaging using adaptive beamformers"

10:05 Ole Marius Hoel Rindal, UiO  
"Point scatter detection using plane wave coherence factor imaging"

10:25 Tobias Dahl, SINTEF  
"Beamforming explained"

**10:45 Break**

**Lunch is served between 13:00 and 14:30**

## **Monday, February 1st**

## **Afternoon session**

15:50 Nicolas P. Chotiros, ONR Global  
"On modeling the underside of sea ice"

16:10 Gaute Hope, Espen Storheim, Hanne Sagen, and Halvor Hobæk, NERSC, UiB  
"Transmitted and modeled long-range acoustic communication signals underneath Arctic sea ice"

16:30 Tor Arne Reinen, SINTEF  
"Underwater acoustic network for ice-monitoring"

16:50 Halvor Hobæk, UiB  
"On underwater sound reflection from ice sheets"

### **17:10 Coffee break**

17:40 Sven Ivansson, FOI  
"Simple illustrations of range- dependence and 3-D effects by normal-mode sound propagation modelling"

18:00 Salman Siddiqui, NTNU  
"Application of Underwater Acoustic Models for Autonomous Underwater Vehicle Navigation"

18:20 Jens M. Hovem, NTNU  
"Recent results on underwater acoustic noise of fishing vessels"

18:40 Hefeng Dong, NTNU  
"Impact of internal waves on sound propagation in shallow water"

### **19:15 Dinner is served**

## **Tuesday, February 2nd**

## **Morning session**

### **07:30 Breakfast**

08:15 Andreas S. Talberg and Tonni Johansen, NTNU, SINTEF  
"Acoustic measurements above a plate carrying Lamb waves"

08:35 Sverre Holm, UiO  
"Geoacoustic-inspired models for shear wave propagation in the brain"

08:55 M. Sæther, P. Lunde, and G. Erslund, UiB  
"Sound velocity measurement method for porous sandstone. Measurements, finite element modelling, and diffraction correction"

**09:15 Coffee break**

09:45 M. Aanes, K. D. Lohne, P. Lunde, and M. Vestrheim, UiB,  
"Transducer finite aperture effects in sound transmission near leaky Lamb modes in elastic plates at normal beam incidence"

10:05 Vikash Pandey, UiO  
"Connecting the grain-shearing mechanism of wave propagation in marine sediments to fractional calculus"

10:25 Jun Tang, NTNU  
"3-D numerical simulation for wave propagation in wedge-shaped seismo-acoustic waveguides"

**10:45 Break**

**Lunch is served between 13:00 and 14:30**

**Tuesday, February 2nd**

**Afternoon session**

15:50 Ulf Kristiansen and Muriel Amielh, NTNU, IRPHE  
"Measurements on a little known sound source – the vortex whistle"

16:10 Ann Elisabeth Albright Blomberg, UiO  
"Array signal processing for marine gas seep detection"

16:30 Rune Hauge, CMR  
"Active Acoustic Leak Detection of Oil and Gas"

16:50 Erlend Magnus Viggen and Herold Olsen, SINTEF  
"An introduction to mapping the noise from shooting ranges"

**17:10 Coffee break**

17:40 Knut Waagan, FFI  
"Numerical modelling of sound propagation during the Norwegian Trials experiment"

18:00 Anton Nikolaev, HSN  
"Acoustic system for monitoring respiratory motion"

18:20 Gunnar Taraldsen, NTNU  
"From nonlinear acoustics to environmental noise community tolerance levels"

**19:15 Dinner is served**

**Wednesday, February 3rd**

**Morning session**

09:00 Tor Inge B. Lønmo, Kongsberg Maritime Subsea

"Interference Rejection for Sonars via Low Complexity Adaptive Beamforming"

09:20 Karl Thomas Hjelmervik, FFI

"Automatic classification of sonar targets – recent results"

09:40 Martin Östberg, FOI

"Target echo strength modelling at FOI, including results from the BeTSSi II workshop"

10:00 Roy E. Hansen, Anthony P. Lyons, and Daniel A. Cook, FFI

"Observations of Internal Waves in Synthetic Aperture Sonar Imagery"