41st SCANDINAVIAN SYMPOSIUM ON PHYSICAL ACOUSTICS
Geilo Hotel, 28 to 31 January 2018
Program

Sunday
19:00  Dinner
21:30  Opening of the Symposium
21:45  Annual meeting, Acousticians in the Acoustics and Optics group of the Norwegian Physical Society

Monday Morning
08:15  Ali Fatemi, NTNU
       *Increased Clutter Noise in Echocardiography Due to Specular Reflection at the Ribs*
08:30  Fabrice Prieur, UiO
       *Ultrasound elastography in muscle*
08:45  Elisabeth G. Ramsdal, UiO
       *Imaging Shear Wave Propagation in soft tissues using Time Harmonic Ultrasound Elastography*
09:00  Nico de Jong, Erasmus MC, Rotterdam, The Netherlands
       *Matrix transducers for 3D ultrasound imaging*
09:15  Coffee Break
09:30  Jørgen Arendt Jensen, DTU
       *Calibration and accuracy of Field II for acoustic pressure calculations*
09:45  Karen Brstad Evensen, UiO
       *Non-invasive estimation of intracranial pressure waveform*
10:00  Yücel Karabıyık, UiO
       *Limiting spectral broadening in Pulsed Wave Doppler*
10:15  Stine Myhre Hverven, UiO
       *Point scatterer enhancement in ultrasound by shrinkage of wavelet coefficients*
10:30  Time available for skiing and lunch.
       Lunch is served from 13:30 to 15:00.
Monday Afternoon

15:45  Ann Blomberg, UiO  
*Acoustic observations of marine gas seeps in the Hudson Canyon using a Broadband split beam echo sounder*

16:00  Andrey K. Morozov, Douglas C. Webb, Teledyne Marine Systems, MA, USA  
*Physical Acoustics of the Underwater Bubble Infra-Sound Resonator.*

16:15  Dag Tollefsen¹, David P. Knobles², Stan E. Dosso³  
¹FFI, ²KSA LLC, Austin, TX, USA, ³Univ. of Victoria, BC, Canada  
*Statistical inference for geoacoustic parameters in a layered mud-sand seabed using noise from ships-of-opportunity.*

16:30  Jacob Hiden Rudander, Kongsberg Maritime  
*Shallow-water channel sounding for high speed acoustic communication*

16:45  Sven Ivansson, FOI  
*On parabolic-equation model verification for underwater acoustics*

17:00  Coffee Break

17:15  Antoine Blachet, UiO  
*Advanced pulse transmission techniques for seabed mapping with sonar*

17:30  Magne Aanes, Ketil D. Lohne, Per Lunde, Magne Vestrheim, UiB  
*Transmission through an isotropic viscoelastic water-coupled plate using a transmit-receive transducer system*

17:45  Simen Midtbø¹, Per Lunde¹,², Magne Aanes¹, Magne Vestrheim¹, ¹UiB, ²CMR  
*Comparison of angular spectrum models for baffled piston sound field with finite receiver apertures*

18:00  Kjell Eivind Frøysa, HVL  
*Diffraction effects of an acoustic beam propagating through a uniformly flowing medium*

18:15  Marcus Wild, HSN  
*Power dissipation in piezoelectric rods*

18:30  Ngoc Thi Bich Nguyen, HSN  
*Inhibiting laterally leaking Lamb waves in bulk acoustic wave resonators*

19:00  Dinner
Tuesday Morning

08:15  Karl-Thomas Hjelmervik, FFI
   Automatic classification of sonar targets

08:30  Ole Lorentzen, FFI
   Fitness quality in cross-correlation based interferometry for synthetic aperture sonar

08:45  Espen Storheim, Hanne Sagen, Asuka Yamakawa, Torill Hamre, NERSC
   Handling acoustic data in an integrated observation system

09:00  Brian Dushaw, Hanne Sagen, NERSC
   The Role of Simulated Small-scale Ocean Variability in Inverse Computations for Ocean Acoustic Tomography

09:15  Coffee Break

09:30  Isabel Pérez-Arjona, Víctor Espinosa, Universitat Politècnica de València, Spain
   Measurements of acoustic impedance of tuna tissues and target strength simulations

09:45  Manuel Bou-Cabo, Isabel Pérez-Arjona, Patricia Ordóñez, Vicent Puig, Víctor Espinosa, Universitat Politècnica de València, Spain
   Non linear propagation and broadband scattering simulations using the k-Wave method.

10:00  Hefeng Dong, NTNU
   Characterization of sediment profile using Bayesian approach

10:15  Guoli Wu, NTNU
   Reconstruction of Green’s function from ocean ambient noise

10:30  Time available for skiing and lunch.
       Lunch is served from 13:30 to 15:00.
Tuesday Afternoon

15:30 Tomas Jansson, Lunds Universitet
*Magnetomotive ultrasound - detecting nanoparticles with ultrasound*

15:45 Nils Sponheim, OsloMet
*Ultrasound activity at OsloMet*

16:00 Thong Huynh, HSN
*Optimization of Ultrasound Pulses for Second Harmonic Imaging*

16:15 Alfonso Rodriguez-Molares, NTNU
*Visualization of Specular Reflector*

16:30 Ola Myhre, SURF Technology
*SURF dual-frequency transducer design*

16:45 Per Kristian Bolstad, HSN
*Miniature Highly Sensitive Ultrasound Doppler Transducers*

17:00 Coffee Break

17:15 Erling Hohler, Techni AS
*The ultrasonic pathway in BAMSE. Time of flight measurements over large temperature and pressure intervals.*

17:30 Martijn Frijlink, InPhase Solutions AS
*Development of an aluminum billet ultrasonic inspection system*

17:45 Morten Hansen Jondahl, HSN
*Rheological Characterization of Non-Newtonian Drilling Fluids With NonInvasive Ultrasonic Interrogation*

18:00 Tore Lie Sirevaag, Idar Larssen, Tonni Franke Johansen, Sintef
*Design and testing of a bench lab setup for ultrasonic testing through a steel pipe*

18:15 Andreas Sørbrøden Talberg, NTNU
*Target detection through a steel plate using beamforming*

18:30 Martin Landrø, NTNU
*Seismic acquisition and implications for marine mammals*

19:00 Dinner
# 41st Scandinavian Symposium on Physical Acoustics

Geilo Hotel, 28 to 31 January 2018

**Program**

## Wednesday Morning

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Affiliation</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00</td>
<td>Vikash Pandey, Alfred Hanssen, UiT</td>
<td>UiT</td>
<td><strong>Temporal Bubble Dynamics</strong></td>
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<tr>
<td>09:15</td>
<td>Sverre Holm(^1), Ralph Sinkus(^2), (^1)UiO, (^2)King's College, London, UK</td>
<td>UiO</td>
<td><strong>Power law attenuation of shear waves in fractal media</strong></td>
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<tr>
<td>09:30</td>
<td>Brian Dushaw, NERSC</td>
<td>NERSC</td>
<td><strong>Acoustic tomography as a component the Atlantic Ocean Observing System: Opportunities and Challenges</strong></td>
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<tr>
<td>09:45</td>
<td>Tale S. Såstad, FFI</td>
<td>FFI</td>
<td><strong>Synthesizing realistic, high-resolution anti-submarine sonar data</strong></td>
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<tr>
<td>10.00</td>
<td>Master student session</td>
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<td><strong>Presentation of new master students and their projects</strong></td>
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<tr>
<td>10.15</td>
<td>Closing of the symposium</td>
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## Affiliations

- CMR Christian Michelsen Research
- DTU Technical University of Denmark
- FFI Norwegian Defence Research Establishment
- FOI Swedish Defence Research Agency
- HSN University College of Southeast Norway
- HVL Western Norway University of Applied Sciences
- NERSC Nansen Environmental and Remote Sensing Center
- NTNU Norwegian University of Science and Technology
- UiB University of Bergen
- UiO University of Oslo
- UiT The Arctic University of Norway