

23d Scandinavian Symposium on Physical Acoustics

Ustaoset Høyfjellshotell 30 January - 2 February 2000

Monday 31 January

Morning session

- 8.30 O.M. Johannesen¹, H. Hobæk², and H. Sagen¹
¹ Nansen Environmental and remote Sensing Centre, Bergen
² Department of Physics, University of Bergen
*Acoustic monitoring of the ocean climate in the Arctic Ocean -
CENTRAL ARCTIC.*
- 8.55 A. Hashemi, Department of Engineering, Bergen College
*Prediction of acoustic arrival time in Fram Strait
by Fourier analysis of broadband acoustic signals based on normal modes.*
- 9.20 B. Berntsen, Dept. of Telecommunications/acoustics NTNU
Estimation of seafloor impedance and roughness using a parametric sonar.
- 9.45 Coffee break
- 10.00 I. Karasalo, and J. Mattson, FOA, Stockholm
*Model analysis of a sea trial for detection of submerged
and buried objects.*
- 10.25 R.E. Hansen, TRIAD AS
Measurements in the Mixed Layer with a Bistatic Multi-CW Doppler Sonar.
- 10.50 R. Korneliussen, Institute of Marine Research, Bergen
Acoustic signatures of biological scatterers.
- 11.15 A. Sødahl, PGS, Oslo
Environmental aspects of marine seismic airguns.
- 11.40 P. Lunde, K.-E. Frøysa (Christian Michelsen Research AS),
and M. Vestrheim (Department of Physics, University of Bergen)
*Challenges for improved accuracy and traceability in ultrasonic
fiscal flow metering of gas.*
- 12.05 Break, Lunch will be served from 13.30

Monday 31 January

Afternoon session

- 16.00 S.B. Khelil¹, A. Merlen¹, V. Preobrazhenski^{2,3}, P. Pernod²
¹ Laboratoire de Mécanique de Lille Ura cnrs 1441 France
² Institut d'Electronique et Microelectronique du Nord, Umr cnrs 8520 France
³ Wave research Center of general Physics institute, Russian Acad. Sci.
Acoustic phase conjugation in active media: a new numerical approach.
- 16.25 S. Ivansson¹, and J. Bishop²
¹ FOA, Stockholm
² Naval Undersea warfare Center, Newport
Extraction of traveling-wave field components by Green's function expansion.
- 16.50 J.O. Langseth, Norwegian Defence Research Establishment, Kjeller
Unsplit shock capturing schemes applied to acoustics.
- 17.15 Coffee break
- 17.30 A. Hashemi, Department of Engineering, Bergen College
Inverse modelling using empirical orthogonal functions.
- 17.55 P. Svensson, Dept. of Telecommunications/acoustics NTNU
Modelling scattering impulse responses with analytic edge sources.
- 18.20 A. Rønnekleiv, Department of Physical Electronics, NTNU
More on guiding of pseudo SAW.
- 18.45 Break, Dinner at 19.15

Tuesday 1 February

Morning session

- 8.30 M. Vestrheim, Department of Physics, University of Bergen
Material constants for piezoceramic materials.
- 8.55 T. Bove, W. Wolny, E. Ringgaard, and A. Pedersen, Ferroperm Piezoceramics AS
New piezoceramic material for medical diagnostic applications.
- 9.20 J. Kochbach, Department of Physics, University of Bergen
*Finite element modelling of piezoceramic discs
including radiation into a fluid medium.*
- 9.45 Coffee break
- 10.00 Å.Ødegård, Department of Informatics, University of Oslo
Finite element simulation of acoustic fields with DIFF-Pack
- 10.25 P. Fox, Department of Informatics, University of Oslo
Modelling 2D arrays with Fourier-Bessel series.
- 10.50 L. Hoff, Dept. of Telecommunications/acoustics NTNU
Nonlinear scatter from Sonazoid: Theory and some measurements.
- 11.15 A. Healey, Nycomed Imaging AS
Ultrasound pulse propagation, visualisation and simulation.
- 11.40 E.B. Lunde, Signal Processing Group, Technology Division, Simrad AS
*Sound transmission. The element array and the wavefront surface.
A generalised approach.*
- 12.05 Lunch will be served from 13.30

Tuesday 1 February

Afternoon session

- 16.00 R.C. Waag (invited), Department of EECS, University of Rochester NY
Measurement and correction of ultrasonic wavefront distortion.
- 16.30 B. A.J. Angelsen, Department of Physiology and Biomedical Engineering NTNU
Modelling and analysis of wave propagation in heterogeneous, soft tissue
- 16.55 T. F. Johansen, Department of Physiology and Biomedical Engineering NTNU
Phase aberration correction - experiments and simulations.
- 17.20 Coffee break
- 17.35 G. Taraldsen, Department of Physiology and Biomedical Engineering NTNU
Mathematical modelling of nonlinear medical ultrasound.
- 18.00 S. Holm, Department of Informatics, University of Oslo
Non-linear propagation of limited diffraction beams.
- 18.25 A. Austeng, Department of Informatics, University of Oslo
Thinned arrays for real-time 3D ultrasound imaging
- 18.50 Break, Dinner at 19.15

Wednesday 2 February

Morning session

- 9.00 G. Pedersen and H. Hobæk, Department of Physics, University of Bergen
Acoustic streaming from single ultrasound bursts - preliminary experimental results.
- 9.25 I. Bratberg, Dept. of Telecommunications/acoustics NTNU
Event driven methods in dry non-cohesive granular materials.
- 9.50 H. Engan, Department of Physical Electronics, NTNU
Wireless temperature sensing by surface acoustic waves.
- 10.15 Coffee break
- 10.30 I. Bjørnø, J. Hald, and L. Bjørnø, Industrial Acoustics Department
Technical University of Denmark
Development of an ultrasonic procedure for on-line monitoring of quality of potatoes.
- 10.55 J. Pihl, FOA Stockholm
Determination of geo-acoustic parameters by inverse modelling.
- 11.20 H.Dong, Dept. of Telecommunications/acoustics NTNU
Sound propagation over layered poro-elastic ground by finite difference method.
- 11.45 Closing, Lunch is served from 12.30