



**BNAM
2006**

Baltic-Nordic Acoustic Meeting
8 - 10 November Gothenburg, Sweden

Third announcement and
GENERAL INVITATION for
participation together with an
extended deadline for abstracts
for workshops and poster sessions.

Baltic-Nordic Acoustics Meeting 2006
Gothenburg, Sweden,

8 - 10 November

Sound and Vibration

Satellite symposium 8 November
Man and Noise

The conference is organised by the
Swedish Acoustical Society, SAS and the
Scandinavian Vibration Society, SVIB
The satellite symposium is organised in co-operation with the National
Institute for Working Life, NIWL, in Sweden

Principal sponsors



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Register for BNAM at www.ingemansson.com

Dayly schedule and timetable

day/ time	Wednesday 8	Thursday 9	Friday 10
08.00			Sessions
09.00	Registration	Registration	
09.20		Invited speaker	Coffee
10.00	Sessions	Sessions	Sessions
12.00	Lunch.	Lunch	Lunch
13.00	Sessions	Invited speaker	Invited
15.00	Coffee,	Coffee	Coffee
15.30	Sessions	Sessions	Sessions
17.30	Registration	Technical visits	Closing
18.00	Exhibition		
19.00	Reception	Dinner	
19.30	Operetta		

Organising committee

Leif Åkerlöf:	leif.akerlof@ingemansson.se
Martin Almgren:	martin.almgren@ingemansson.se
P A Hellström:	p1a2h3@hotmail.com
Per Sjösten:	per@sound.se
Lars Landström:	lars.landstrom@ingemansson.se
Tapio Lokki:	ktlokki@cc.hut.fi
Peter Svensson:	svensson@iet.ntnu.no
Alf Olsson:	alf.olsson@sekom.se

Scientific committee

P A Hellström:	p1a2h3@hotmail.com
Thomas Abrahamsson:	thomas.abrahamsson@me.chalmers.se
Wolfgang Kropp:	wk@ta.chalmers.se
Peter Svensson:	svensson@iet.ntnu.no
Anders Ågren:	anders.agren.@ltu.se

Satellite symposium "Man and Noise"

Ulf Landström: ulf.landstrom@arbetslivsinstitutet.se

Welcome to BNAM in Gothenburg 8-10 November 2006

Research and academic education in the field of acoustics and vibration were initiated in Sweden in the late 1940-ties. Thanks to pioneers like Ove Brandt, Stellan Dahlstedt, Per Brüel and Stig Ingemansson and their initiatives and foresightness the status and awareness of this field of technology and engineering has quickly increased and reached levels of international recognition.

The Swedish Acoustical Society was founded already 1945. In 1956 Stig Ingemansson, professor at Chalmers, established the first Scandinavian company of acoustics and vibration consulting engineering.

Over the past half century the numbers of research activities have steadily grown. We are facing new challenges in the contemporary society related to urbanization and mechanization. The increased awareness public health aspects have allocated resources for investigating the effects of human exposure to noise and vibration.

Ingemansson Technology AB will commemorate its 50th anniversary in connection with the BNAM 2006. The organisers are pleased to acknowledge the support of Ecophon, SKF and Ingemansson Technology AB as the three principal sponsors for a successful BNAM 2006.

We are looking forward to seeing you in Gothenburg in November 2006 for an interesting event. We want it to be an opportunity for you to catch some of the highlights of research and technology in the field of acoustics and vibration and to meet and network with fellow engineers with whom you can share views and experience.

Welcome!

Leif Åkerlöf
President
The Swedish Acoustical Society

Martin Almgren
President
The Scandinavian Vibration Society



Important dates

15 June 2006 to 30 September, registration at normal rates
1 to 31 October, Registration, registration at increased rates

15 August 2006

Extended deadline for contributions to workshop- and poster sessions

15 September 2006

Deadline for full papers

20 October 2006

Date of publication of the detailed programme
Papers for the workshops will be available

8 November 2006

Satellite symposium "Man and Noise"
Technical visits

8 November reception in the Exhibition, evening performance in RunAn
19:30 Count of Luxemburg by Franz Lehár, full cast and orchestra

9 November 2006

Conference
Technical visits
Dinner at Chalmers 19:00

10 November 2006

Conference continues.

Registration

www.ingemansson.com

Accommodation

The organisers have reserved rooms in various hotels in Gothenburg. Most hotels are within walking distance from the conference venue. Reservations are made at: bokningen@activbokning.se

alternatively by phone +46 31 12 42 12 or fax. +46 31 23 35 24

Transport

Free busses will be available for students from Stockholm, Lund and Trondheim.

Social programme

8 November operetta performance in RunAn 19.30 Count of Luxemburg by Franz Lehár, a SäfteOpera performance with chorus, orchestra and artists.
9 November Conference dinner. 19.00

Invited speakers

Ole Døssing, Rovsing-Dynamics AS, will expand his highly appreciated speech on the **Sounds of Vibration** and

Professor Stig Arlinger LiU will share his findings from research at **Speech recognition in noise** – more than just an S/N-issue

Paper presentations

15 minutes presentations of works and projects followed by 5 minutes for questions and discussions.

Workshops

Workshops with 5 to 8 minutes prepared presentations followed by a discussion of a few interesting topics will be organised. A workshop lasts for about two hours and will if possible end with a conclusion. You are free to contribute with a paper or just listen, learn and discuss. Professor Arlinger will lead one workshop on "Exposure of musicians" and Erling Nilsson will organize a discussion on "Classroom acoustics".

Poster presentations

You can present your work or ideas on a poster and discuss them with others.

Language

The language of the conference is English.

Study visits

The new facilities of the acoustic laboratory at the Sahlgrenska Academy, O&E Medicin at GU will be shown by Evy Öhrström, Per Sjösten will guide visitors at the music studios at the Brewhouse and Helmut Salsland is prepared to receive visitors at SKF.

Fees

for participation, documentation, lunches and coffee during breaks.

8 - 10 Nov. Delegates: **1800 SEK** (2100 SEK after September 30, 2006)

8 - 10 Nov. Students: **300 SEK** (400 SEK after September 30, 2006)

8 Nov. Man and Noise only: Delegates **450 SEK** (500 SEK after Sept. 30)

8 Nov. Students **75 SEK**. (100 SEK after Sept. 30)

8 Nov. Reception and Operetta performance **100 SEK**

9 Nov. Dinner for delegates, students and spouses, per person **100 SEK**

All fees will be invoiced prior to the conference.

Register at www.ingemansson.com

Programme for "RunAn"

Chalmers Technical University, Gothenburg

November 8

Satellite symposium Man and Noise

Opening and closing of the symposium.

Ulf Landström, National Institute for Working Life, Umeå

Cognitive psychology and speech understanding.

Björn Lyxell, Linköpings Universitet

Cognitive aspects of speech comprehension in noise.

Birgitta Larsby and Mathias Hällgren, University of Linköping

Noise in the school environment - learning and learning strategies.

Eva Boman, University of Gävle

Strategies and noise.

Ingela Enmarker, University of Gävle

Noise, memory and learning in children.

Staffan Hygge, University of Gävle

Acoustics and speech communication- to hear, understand and remember what is said.

Anders Kjellberg, University of Gävle

Masking effects of self-produced sounds.

Erik Borg, University of Örebro

Children with autism and their sensitivity to environmental sounds.

Örjan Johansson, Luleå University of Technology

What are children's reaction to noise in preschools?

Kerstin Persson Waye, University of Göteborg

Human response to wind turbine noise in the home environment.

Eja Pedersen, University of Göteborg

Young people and occupational noise risks.

Kjell Holmberg, National Institute for Working Life, Umeå

Communication quality focusing on binaural effects when using assistive listening devices in class room situations.

Johan Odelius, Luleå University of Technology

Getting control of the sound levels in live music venues.

Per Sjösten, Sound Processing AB, Göteborg

Acoustic measurements at Volvo Wheel Loaders AB.

Nicklas Frenne, Volvo Wheel Loaders AB, Eskilstuna

November 9 - BNAM 2006 -Acoustics & Noise

Session A I - Railway Noise

Towards an empirical model for sound insulation against tram noise

Sigmund Olafsen, Brekke & Strand akustikk as

Train brake squeal - noise and annoyance

Leif Rydén, Ingemansson Technology AB

Damping treatments on train interior panels: vibration and radiation effects. Ulf Orrenius, Yan Jiang, Martin Almgren, Bombardier Transp.

Vibration isolation for trackbeds - some aspects

Klaus Friedrich, GERB Schwingungsisolierungen GMBH

The application of the HARMONOISE - IMAGINE source model on Swedish trains XUETAO Zhang, SP Sweden.

Session AII - Soundscape, support to health

Soundscape support to health - more than a research programme
Kjell Spång, KS miltek

Soundscape perception

Birgitta Berglund, M E Nilsson, Ö Axelsson, Karolinska Institutet, Sthlm

Traffic noise policy during 40 Years

Tor Kihlman, Chalmers, Applied acoustics

The quiet side concept - benefits and limitations

E Öhrström, A Gidlöf-Gunnarsson, Sahlgrenska Acad. O&E Medicin at GU

Statistics of road traffic noise in shielded urban areas: An initial study of A-weighted levels

Jens Forssén and Maarten Hornikx, Applied Acoustics, Chalmers

Session A III - Sound propagation outdoors

Scale model measurements and numerical modelling for directly exposed and shielded urban street canyons

Maarten Hornikx, Applied Acoustics, Chalmers

A prediction tool for long-range noise propagation

Alex Cederholm, FOI

Session A IV - Musical acoustics

On geometrical influence on violin sound

Anders Buen, Brekke & Strand akustikk as

Diffusivity of performance spaces - its significance to perceived sound quality from directive sources

Magne Skålevik, Brekke & Strand akustikk as

A brief introduction into the violin acoustics history

Anders Buen, Brekke & Strand akustikk as

Orchestra canopy arrays - some significant features

Magne Skålevik, Brekke & Strand akustikk as

November 10

Session A V - Room acoustics

Immersive Visualization of Room Acoustics

Tapio Lokki and Ville Nenonen, Helsinki University of Technology

Effects on speech intelligibility using a binaural assistive listening dev.

Johan Odelius and Örjan Johansson, Luleå University of Technology

Classroom acoustics. A listening test

Erling Nilsson, E. Nilsson Akustik, Lund

The personal sound masking & information system in open-plan office

Jani Kankare, K. Leh-tonen, V Viljanen, T Virjonen, PROMETHOR LTD

Classroom acoustics. Systematic measurements

Nils-Åke Andersson, Saint-Gobain Ecohpon AB

A reverberation time formula for rooms with ceiling treatment

Erling Nilsson, E. Nilsson Akustik, Lund

Improvement of speech intelligibility in a preserved hall at CPH Univ.

Sören Andersen and Torben Astrup, Ingemansson Technology

Measurement of free-field-conditions in small anechoic rooms

Thomas H Olsen, Torben Astrup and Ph S White, Ingemansson Technology

Speech privacy descriptors for offices - Do they work in Europé?

Pierre Chigot, Saint-Gobain Ecohpon AB

Electroacoustic systems for the new opera house in Oslo, Norway

Alf Berntson, Artifon AB

Session A VI-Vehicle, aircraft & mach. acoustics

Noise from intake systems for IC-engines

Magnus Knutsson, Volvo Car Corporation

The comparative studies concerning the two possible methods to compute reciprocating compressors crankshaft torsional vibrations

Nicolae Ursu-Fischer, Technical University of Cluj-Napoca

The Herschel-Quincke tube revisited

Mikael Karlsson, KTH/Farkost och Flyg/MWL

Session A VII - Noise mapping

Noise mapping of Kalmar

Torbjörn Appelberg, Ingemansson Technology AB

Silent areas in Sweden - Methods for classification

Henrik Naglitsch, Ingemansson Technology AB

Noise protection work in Stockholm 1970 - 2005

Leif Åkerlöf, Ingemansson Technology AB

Session A VIII - Noise exposure, management and Applied psychoacoustics

Sound quality rating

Leif Åkerlöf, Ingemansson Technology AB

Noise exposure and health effects: a self-reported study on young adults and their use of hearing protection devices

Kjell Holmberg (et al), National Institute for Working Life, Umeå

Objective transient sound quality analysis for perceived consumer product quality

Monica Hellström, Ingemansson Technology AB

Sound absorption of suspended ceilings

Krister Larsson, SP

Maximum levels

Hans Jonasson, SP

Construction noise at Citybanan

Anne Hallin, Ingemansson Technology AB

Programme for "Palmstedt"

Chalmers University of Technology, Gothenburg

November 9 Human response to vibration SVIB AU4

Session B I Infant's exposure to ride vibration

Chair: Johan Granlund, Vägverket Konsult

High ride vibration in infant baby seats

Malin Nilsson, VTI

High ride vibration in infant baby seats

Joseph Giacomini, Brunel University

Färdvibrationer i transportkuvöser

Lennart Lindberg, ALI & Leif Leding, Ambulansakademien

Automotive design for perception enhancement.

Joseph Giacomini, Brunel University

Session B II Good vibrations

Beneficial effects of vibration on bone density, muscle strength and postural stability

Neil Mansfield, U o Loughborough

Is vibration an effective exercise intervention

Marco Cardinale, Olympic Medical Institute, London

Opposition against vibration training

Alf Thorstensson, Idrottshögskolan

Vibrationsträning för barn med grava funktionshinder.

Ylva Dalén, Karolinska Institutet

Session B III Vibration at work

Vibration at work (Directive 2002/44/EC)

Pär Friberg, Arbetsmiljöverket

Transienta hand-arm vibrationer; riskbedömning och åtgärder.

Hans Lindell, Ingemansson

Low cost prevention of vibration exposure

Peter Jönsson, Center for Vibration Comfort

Session B IV Animal welfare

Kännande varelser eller okänsliga varor, Djurtransportutredningen

Ingvar Ekesson, SLU

Vibration and animal welfare with special emphasis in cattle.

Girma Gebresenbet, SLU

Vibrationsmåling sikrer skånsom dyrtransport

Flemming Nøddegaard, Slagteriernes Forskningsinstitut

Scandinavian Vibration Society Annual meeting

November 10

Session B IV Ground and building vibration

Low-frequency Environmental Vibrations from Train Traffic - Exitation Mechanism and Mitigations Actions in Halmstad

Bo Andreasson, WSP Civils, Gothenburg

The Third Party and the Low Level Vibrations from Rock Blasting

Ingvar Bogdanoff WSP Civils and Olle Goffe WSP Environmental

Criteria for Vibration from Traffic in the New Environmental Programme from the Traffic and Public Transport Authority of Göteborg City

Tomas Odebrant, Ingemansson Technology AB

The Göta Tunnel in Göteborg. Monitoring Vibrations from Drilling and Blasting in a City Environment

Peter Behrman, Swedish Road Administration, Göteborg

"Citybanan", the New Train Tunnel under Stockholm City. Handling of Vibration and Structure-Borne Sound from the New Railway Track

Tomas Odebrant, Ingemansson Technology AB

Session B V Noise and vibration control, materials and methods

Railway High-Efficiency Vibration Isolation using Stone Wool: A Robust and Cost-Effective Solution to a Challenging Problem

Kevin Bo Gatzwiller, RockDelta a/s

Results of the experimental investigations of materials acoustic performances improvement means

Michael Fessina; Alexandr Krasnov; Leonid Pankov, AVTOVAZ; Togliatti state University

Optimization method for panel stiffening

Claes Fredö, Ingemansson Technology AB

Designing a semitransparent infrasound/wind-barrier for the FTF NanoScience Lab.

Erik Gomez, Ingemansson Technology AB

Experiences from FTF nanolab in Lund

Claes Fredö, Ingemansson Technology AB

Session B VI Machinery Condition Monitoring

Integrating and Combining Every Information Carrying Parameter in Condition Monitoring

Ole Døssing, Rovsing Dynamics

Asset efficeieny optimization for prifitability

Helmut Salsland, SKF

Condition and performance monitoring of turbo machinery by thermodynamic modelling

Jan Olof Gustafsson, Rovsing Dynamics

How SKF can help you to reach as successful reliability

Per-Magnus Karlsson, SKF

Nordisk samordning av akustik- och vibrationsstandardiseringen

Alf Olsson, SVIB Normtjänst AB

Session B VII Active noise and vibration control, Electroacoustic system and control & structure borne sound

Geometry optimization for piezoelectric thickness-shear mode accelerometers using equivalent electric circuits

Mihai Ursu, Technical University of Cluj-Napoca

Power Harvesting From Vibration Using Magnetostrictive Materials

Viktor Berbyuk and Thomas Nygårds, Chalmers, Applied Mechanics

Session B VIII Sound insulation in buildings, measuring and prediction methods

Towards an empirical model for impact noise through heavy floors

Sigmund Olafsen, Brekke & Strand akustikk as

Tram line on the roof of a public centre for the Norwegian Parliament

Arild Brekke, Brekke & Strand akustikk as

Vibration measurements on two coupled lightweight floors

Lars-Göran Sjökvist, Lunds Tekniska Högskola

Springiness and walking vibration in floor structures

J Brunskog, A-C Johansson och Z Bahtijaragic, LTH, Eng. Acoustics, Lund

Session C Acoustic and vibration technology development. In phase or out of phase with the development of society

Session C I Looking back

50 years of applied acoustics research and development in Sweden.

The consultant's perspective.

Juha Plunt, Ingemansson Technology AB

Session C II Now

Community Noise. Improved living conditions in contemporary society ,

Henrik Runström, Ingemansson Technology AB

EU physical agents directives. Setting the standards and pushing new research and development,

Martin Almgren, Ingemansson Technology AB

Using sound design as a premier sales argument in consumer goods

requires state of the art technologies

William Easterling, Ingemansson Technology AB

Home sweet home. Maintaining personal integrity in urban areas. How

building technology helps,

Leif Herlitz, Ingemansson Technology AB

Session C III Tomorrow

Human reaction to the sound environment of tomorrow. To be in control or to be controlled?

Klas Brännström, Ingemansson Technology AB

Extended call for abstracts to workshops - and poster sessions

Anyone who wish to participate in a workshop- or poster session can do so by sending a request together with an abstract to the Secretariat no later than 15 August 2006.

Information on changes in the programme as well as new speakers and subjects of presentations and workshops will be announced on the BNAM website. www.ingemansson.com

Sponsors and Exhibition

The BNAM organising committee invites all companies and organisations to display their products and services in the conference exhibition. The exhibition will be held in the VOLVOFOAJÉ.

The three principal sponsors of the BNAM conference are Ecophon, SKF and Ingemansson Technology AB in conjunction with the celebrations of its 50th anniversary.

If you want to sponsor, take part in the exhibition of the BNAM conference, or contribute in any other way then please contact: Lars Landström, lars.landstrom@ingemansson.se.

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