

1p - MONDAY AFTERNOON, 15 MARCH 1999

1pAA Architectural Acoustics: Concert & Opera Halls; Case Studies of New Halls; Opera Houses

- 1PAA__1** **Yoichi Ando, Yukio Suzumura, Itaru Yamamoto**
Acoustic design of the Tsuyama-Music Cultural Hall based on the preference theory
- 1PAA__2** **Russell Johnson, Eckhard Kahle**
The new Konzertsaal of the KKL Center, Lucerne, Switzerland. I. Acoustics Design
- (no paper) The new Konzertsaal of the KKL Center, Lucerne, Switzerland. II Preliminary acoustical measurements
- (no paper) The acoustics evolution of Chicago's Orchestra Hall: A case study
- (no paper) Yokohama Minato Mirai Hall
- 1PAA__6** **Henrik E. Möller, Tapio Lahti**
Acoustical design of the Marienkirche concert hall, Neubrandenburg
- (no paper) Festspielhaus Bayreuth-The unique acoustic situation
- 1PAA__8** **Nicola Prodi, Patrizio Fausti, Roberto Pompoli**
Acoustics of opera houses: A cultural heritage
- (no paper) New subjective and objective data on 20 opera houses of the world
- 1PAA__10** **Robert Harris**
Acoustic considerations in the redevelopment of the Royal Opera House, London
- 1PAA__11** **Lamberto Tronchin, Maria Luisa Vaccari**
Acoustic quality in the Theatre "PalaFenice", Venice
- (no paper) Orchestra shells: Acoustical and practical design considerations
- (no paper) Acoustical modifications of the interior design of a 50' chapel (Poster)
- 1PAA__14** **Bojan Ivančević, Hrvoje Domitrović, Siniša Fajt**
The acoustical properties of large studios (Poster)
- 1PAA__15** **Lamberto Tronchin, Valerio Tarabusi**
The sound quality of the Theatre Comunale in Treviso, Italy (Poster)

1pAB Animal Bioacoustics: Animal Electrophysiological Acoustics

- (no paper) "Internal spectra" in the dolphin's auditory system obtained by a minimal-masking technique
- 1PAB__2 Iris Poganiatz, Hermann Wagner, Israel Nelken, Gilad Jacobson**
Effect of removing physiologically relevant sound-localization parameters on tuning properties of barn owl tectal neurons
- (no paper) Temperature effects on the auditory system: An amphibian case history
- (no paper) Lateral inhibition in frequency tuning of central auditory neurons
- (no paper) Paradoxical lateral suppression in the dolphin's auditory system
- (no paper) Analysis of the role of inhibition in shaping responses to sinusoidally amplitude modulated signals in the auditory system
- (no paper) Measurement of impulse noise-induced temporary threshold shift in endangered and protected animals--two case studies

1pEA Engineering Acoustics: 3D Loudspeaker Reproduction Methods

- 1PEA__1 P. A. Nelson, O. Kirkeby, Y. Kahana, T. Takeuchi, P. A. Hill, H. Hamada**
Factors in the performance of systems for the production of virtual acoustic environments
- (no paper) Creating virtual surround using dipole and monopole pressure fields
- 1PEA__3 Marinus M. Boone, Diemer de Vries**
Spatial sound reproduction with wave field synthesis
- 1PEA__4 Holger Strauss, Jörg Buchholz**
Comparison of virtual sound source positioning with amplitude panning and Ambisonic reproduction
- (no paper) Modification of electrodynamic loudspeakers for 3D spatialization
- (no paper) Sound focusing in reverberating rooms: The time reversal approach
- (no paper) Algorithm for the design of broadband, constant-beamwidth, point-element linear arrays with constant sidelobe level
- 1PEA__8 Daniela L. Manger**
A sound transducer with a flat, flexible diaphragm working with bending waves
- 1PEA__9 Armin Jost, Reiner Kressmann**
FEM and semianalytical simulations of horn loudspeakers and their experimental verification
- 1PEA__10 M. Schinnerl, H. Landes, R. Lerch, J. Schöberl, M. Rausch**
New numerical simulation tool for the design of electromagnetic transducers
- 1PEA__11 Andrzej B. Dobrucki, Piotr Pruchnicki**
Determination of structure of NARMAX model for dynamic loudspeaker using orthogonal algorithm
- (no paper) A proposal to adopt Maxwell distribution as a measure of acoustic field diffuseness in a reverberation room

1pED Education in Acoustics: Acoustics Education 2000

(no paper) Acoustics education in France: Past, present and future

1PED__2 Edward Hojan
Survey of the university institutions teaching acoustics in Poland

(no paper) Acoustics education in the Low Countries

1PED__4 Peter Költzsch
State and trends of acoustics education in Germany

(no paper) Acoustics education in Ukraine

(no paper) Education in acoustics: The Italian experience

1PED__7 Manuel Recuero López, Constantino Gil, Antonio Mínguez
Education on acoustics in Spain and Latin America

1PED__8 C. G. Rice
UK education in Acoustics

(no paper) Education in acoustics: Fundamentals and peculiarities

1PED__10 Thomas D. Rossing
Acoustics: A route to science literacy in the 21st century

1pMU Musical Acoustics: Sound Production of Wind Instruments

1PMU___1 James W. Beauchamp A comparison of wind instrument time-variant spectra

- (no paper) Sound production of flue organ pipes
- (no paper) Sound production in flue instruments: A review
- (no paper) A Rayleigh wave model for the lip reed: Qualitative aspects
- (no paper) Self-excitation in woodwinds: From a particular model to a generic model

1PMU___6 Tohru Idogawa Some comments on the artificial blowing of the woodwind instruments

- (no paper) Differences between cylindrical and conical reed instruments
- (no paper) A complete period doubling cascade on a cromorn

1PMU___9 James P. Cottingham, C. Joseph Lilly, Christopher H. Reed The motion of air-driven free reeds

- (no paper) [cancelled; discussion or break]
- (no paper) Blowing and breathing in the woodwinds: Generation and control of input parameters
- (no paper) Swiss horns and their harmonicity

1pNSa Noise: Urban Noise and Soundscapes

- 1PNSA__1** **Joachim Vogt, Karl Th. Kalveram**
Trading level for number of aircraft immissions: A full-factorial laboratory design
- (no paper) Calculation of noise contours for Belgian airports
- 1PNSA__3** **J. Pons, J. S. Santiago**
Normalized noise spectra of aircraft take-off and landing operations
- 1PNSA__4** **Fernando J. Elizondo-Garza**
Noise problems, savage approaches. From "just forget it" to physical violence
- 1PNSA__5** **Catherine M. Stewart**
Can population density be used to determine ambient noise levels?
- (no paper) [cancelled; discussion or break]
- 1PNSA__7** **Ana María Verzini, Carlos Antonio Frassoni, Aldo Hugo Ortiz Skarp**
A field research about effects of low frequency noises on man
- 1PNSA__8** **Karl Theodor Kalveram, Juergen Dassow, Joachim Vogt**
How information about the source influences noise annoyance
- (no paper) Use of immersive sound in museum exhibition
- 1PNSA_10** **Patrick Susini, Valérie Maffiolo**
Loudness evaluation of urban soundscapes by a cross-modal matching method
- 1PNSA_11** **Valérie Maffiolo, Michèle Castellengo, Danièle Dubois**
Is pleasantness for soundscapes dimensional or categorical?
- 1PNSA_12** **Marianna Mirowska**
Assessment of low-frequency noise in dwellings. New Polish recommendations (Poster)

1pNSb Noise: Noise from Air-Conditioning, Ventilating and Industrial Fans

- 1PNSB__1 W.T.W. Cory**
Fan noise induct sound power - What are we measuring and why?
- 1PNSB__2 Frank Arnold, Wolfgang Neise**
In-duct fan sound power measurement. Part I: Review of general problem
- 1PNSB__3 Wolfgang Neise, Frank Arnold**
In-duct fan sound power measurement. Part II: Revision of ISO 5136
- (no paper) Numerical method and software package for prediction of pressure pulsation in centrifugal ventilators
- (no paper) Modeling centrifugal fan blade trailing edge noise
- 1PNSB__6 J.G. Lalanne, M. Åbom, H. Bodén**
Aeroacoustic response of a six-bladed fan to installation effects
- 1PNSB__7 M. Stremel, Th. Carolus**
Experimental determination of the fluctuating pressure on a rotating fan blade
- (no paper) [cancelled; discussion or break]
- (no paper) Experimental investigation of noise sources in cross-flow fans
- 1PNSB_10 Ondřej Jiříček, Petr Koníček**
Practical approach to ANC of fan noise with feedback compensation
- 1PNSB_11 Vadim I. Tokarev, Oleksander I. Zaporozhets**
Noise from airborne conditioning system
- 1PNSB_12 Volkmar Weise**
Rotational noise generation in peripheral fans (Poster)
- (no paper) Experiences with attenuation of low frequency noise in duct (Poster)

1pNSc Noise: Railway Noise I

- 1PNSC__1 David J. Thompson, Chris J. C. Jones, Guillaume de France**
The effects of rail support stiffness on railway rolling noise
- (no paper) Time domain simulation of railway noise
- 1PNSC__3 Steffen Müller, Klaus Knothe**
Short pitch corrugation on straight tracks - Theory and numerical simulation
- (no paper) On the determination of dynamic properties of elastic rail fastenings
- (no paper) Reduction of groundborne noise from rail systems
- 1PNSC__6 Jan Lub**
The Quiet Rail Traffic (STV) Project. Part 2 - Demonstrating practical low noise solutions
- 1PNSC__7 Peter Fürst**
The real sound emission of "Rasengleis"
- (no paper) Structure-borne noise reduction in a railway tunnel in Cologne by means of a ballastless mass-spring-system type Zublin with discrete Sylodyn bearings and dynamically soft ylodyn ballast mats
- 1PNSC__9 Thomas Klimpel, Klaus Knothe**
Short pitch corrugation on straight tracks - practical experiences
- 1PNSC_10 P.F. van Tol**
A reciprocal method to evaluate low, close to track noise barriers

1pNSd Noise: Airframe Noise

- (no paper) The "Owl" as a challenge in airframe noise research
- (no paper) Airbus airframe noise reduction - A European harmonized research effort
- (no paper) Directivity of flap side-edge noise as observed with a phased microphone array on landing aircraft
- (no paper) Simulation of acoustic scattering from a trailing edge

1pNSe Noise: Jet Acoustics

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| (no paper) | The noise spectrum of isotropic turbulence |
| (no paper) | Jet noise of subsonic aircraft. An aeroengine manufacturer's perspective |
| (no paper) | Industry perspective on jet noise-Prediction and reduction requirements |
| (no paper) | [cancelled; discussion or break] |

1pPAa Physical Acoustics: Scattering

- 1PPAA__1 U.R. Kristiansen, N. Brachet**
Scattering from simple shape bodies using the TLM technique
- (no paper) Space-wave number representation of transient waves. Experimental determination of the space location origin of Lamb waves on cylindrical shells
- 1PPAA__3 Naum Veksler, Jean-Louis Izbicki, Jean-Marc Conoir**
Scattering by cylindrical shells: The Scholte-Stoneley wave nature
- (no paper) Sound scattering by Gauss beam from by cylindrical objects
- (no paper) Scattering from cylindrical structures with various end-cap shapes
- 1PPAA__6 Marc Deschamps, Olivier Poncelet**
Complex poles of Lamb waves propagating along anisotropic and absorbing fluid-loaded plates
- 1PPAA__7 Guy Durinck, Willy Thys, Pascal Rembert, Jean-Louis Izbicki**
Experimental determination of the angular width of plate modes
- 1PPAA__8 Mitsuhiro Ueda**
Wedge diffraction analyzed by localized response function of boundary value problem
- 1PPAA__9 J. L. Horner, R. Lyons, B.A.T. Petersson**
Approximation for scattering from orifices

1pPAb Physical Acoustics: Ultrasonic Non-Destructive Evaluation and Time Reversal Techniques

- (no paper) Reflection coefficient of a Stonely-Scholte wave: An experimental investigation
- (no paper) Characterization of bonding quality of composites with nonlinear modulation method
- (no paper) Sound scattering and transmission through cylindrical layer with concentrated defects
- 1PPAB__4 Nazir Chebbo, Noëlle Mercier**
Modeling of ultrasonic wave interaction with alumina and silica inclusions in steel
- (no paper) Depth profiling of residual stress in steel by laser ultrasonics
- 1PPAB__6 N. Ouarradi, B. Piwakowski**
Measurement of pulsed velocity field generated by circular and rectangular piezoelectric transducer directly coupled to a bloc of aluminium
- (no paper) Quality assessment of adherent and fusion-welded joints in silicon wafers by nonlinear ultrasound
- 1PPAB__8 Bruno Morvan, Alain Tinel, Jean Duclos, Hugues Duflo**
Ultrasonic weld testing using the laser vibrometer detection of a time reversed A-wave
- (no paper) One bit time-reversal through high order multiple scattering media
- (no paper) Characterization of time reversed elastic waves in ergodic billiards
- (no paper) Backscattering time-reversal of acoustic waves in random media
- 1PPAB_12 T. Niederdraenk, R. Thaden**
A correlation-measuring-system for ultrasonic NDT using maximum length sequences (Poster)

1pPac Physical Acoustics: Nonlinear Acoustics

- 1PPAC__1 Sigve Tjøtta**
Higher order effects in finite amplitude sound fields
- (no paper) Modeling and simulating finite-amplitude propagation through time-varying inhomogeneous absorbing media
- 1PPAC__3 Shigemi Saito**
Second harmonic component in the focused ultrasound transmitted through a weakly dispersive liquid layer
- 1PPAC__4 Grażyna Grelowska, Eugeniusz Kozaczka, Grażyna Łypacewicz**
Investigation of nonlinear wave distortion in a focal and post focal region of focused sound field
- 1PPAC__5 Sergei N. Gurbatov, Bengt O. Enflo, Galina V. Pasmanik**
The decay of pulses with complex structure according to Burgers' equation
- 1PPAC__6 V.E. Nazarov, V.Yu Zaitsev, A.B. Kolpakov**
Investigation of the process of self-demodulation of acoustic pulses in river sand
- 1PPAC__7 Shin-ichi Sakamoto, Yoshiaki Watanabe**
Effects of micro bubbles vibration for increase of acoustic streaming
- 1PPAC__8 Vladimir Zaitsev**
Anomalously high elastic nonlinearity and the frequency-independent Q-factor as complementary properties of microinhomogeneous solids
- (no paper) Dissipation in solids: Thermal oscillations of atoms
- (no paper) Acoustical modeling according to the theory of the common networks-taking into account nonlinear effects
- 1PPAC__11 Ricardo E. Musafir**
On the ambiguity in the description of sources and the choice of the acoustic variable
- (no paper) Nonlinear effect of the inertia of the fluid on acoustic streaming in cylindrical guides (Poster)

1pPAD Physical Acoustics: Cavitation Physics and Sonoluminescence I

(no paper) Sonoluminescence: Current status and future perspectives

1PPAD__2 B. Gompf, R. Pecha, W. Eisenmenger
The cavitation collapse on a sub-ns time scale

(no paper) Measuring cavitation conditions by multi-bubble sonoluminescence

1PPAD__4 R. Mettin, S. Luther, C.-D. Ohl, W. Lauterborn
Simulation of bubble motion in acoustic cavitation

(no paper) Bubble dynamics and SBSL in a variable acceleration environment

(no paper) Single-bubble large-scale cavitation

1PPAD__7 R. Pecha, Z. Q. Wang, B. Gompf, W. Eisenmenger
Single bubble sonoluminescence: Investigation of the emitted pressure wave with a streak camera and a fiber optic probe hydrophone

1PPAD__8 M. Dan, J. D. N. Cheeke, L. Kondic
Experimental observation of the effect of ambient pressure on single bubble sonoluminescence

(no paper) Parameter space of single bubble sonoluminescence for various liquid temperatures

(no paper) Molecular dynamics approach for a sonoluminescing bubble

(no paper) Single bubble sonoluminescence in water during transitions from hyper-gravity to low-gravity on NASA's KC-135 aircraft and laser beam extinction methods for studying bubble dynamics

1pPAe Physical Acoustics: Acoustic Evaluation of Materials (Poster Session)

- (no paper) Acoustic emission signals from the sol-gel transition of tetraethoxysilan (TEOS) and sodium silicate solutions (Poster)
- (no paper) Ultrasonic velocity and absorption in the binary mixtures of 1-butanol with isomeric butanediols at 298.15K (Poster)
- 1PPAE__3 Birutė Voleišienė, Gintara Miglinienė, Algirdas Voleišis**
Ultrasonic study of ionic association in aqueous solutions of lanthanide salts (Poster)
- (no paper) Effect of wall adsorption on the photoacoustic detection of ammonia with a 1.53 micrometer DFB diode laser (Poster)
- 1PPAE__5 Vesna Ignjatovic, Mile Novakovic, Milena Miljkovic**
The effects of ultrasonic waves on dye penetration with cellulose fabrics dyed by vinylsulphonic dyes (Poster)
- 1PPAE__6 Mile Novakovic, Vesna Ignjatovic, Milena Miljkovic**
The effects of ultrasonic energy on reactive dye absorption in the presence of reduced quantities of salt (Poster)
- 1PPAE__7 Przemysław Ranachowski, Ignacy Malecki**
Acoustic emission (AE) generated by thermomechanical stress in engineering (Poster)

1pPPa Psychological and Physiological Acoustics: Recent Advances in Models of Auditory Processing

- (no paper) Modeling within- and across-channel processing of amplitude modulation
- (no paper) Computer models of the auditory periphery
- (no paper) Modeling the effects of peripheral compression on temporal processing
- (no paper) Recent advances in models of binaural detection and localization
- (no paper) Temporal models of pitch processing
- (no paper) Cochlear wavelength representation of acoustic frequency content
- 1PPA__7 Frank Baumgarte**
Evaluation of a physiological ear model for the simulation of nonlinear masking effects
- 1PPA__8 Hans-Peter Rangol**
Physiological measurements and mathematical models for interaural pathways
- 1PPA__9 Claus Weiland**
A network model for the functional architecture of the medial superior olivary nucleus
- (no paper) Modeling the precedence effect: Mechanisms of onset enhancement in binaural lateralization models
- 1PPA_11 Yoichi Ando**
A model of primary sensations, pitch, loudness and timbre, for sound signals
- (no paper) The mechanisms underlying temporal pitch perception studied with sequences of filtered clicks

1pPPb Psychological and Physiological Acoustics: Cross-Spectral Processing (Poster Session)

- (no paper) Effect of target versus distracter-tone frequency region and variance on sample discrimination of frequency differences (Poster)
- (no paper) Detection of tones on unexpected frequency in amplitude-modulated noise (Poster)
- (no paper) A behavioral reverse correlation technique to decipher early auditory feature coding (Poster)
- (no paper) Internal representation of spectral information in dependence of signal style and auditory filter bandwidth (Poster)
- (no paper) Amplitude modulation discrimination interference (MDI) and speech intelligibility for normal hearing and hearing-impaired subjects (Poster)

1PPPB__6 Martin Vestergaard, Karsten Bo Rasmussen, Torben Poulsen Comodulation masking release in bit-rate reduction systems (Poster)

- (no paper) Comodulation masking release (CMR) for multiple temporal envelope maskers (Poster)
- (no paper) An exploration of coherence masking protection in a spectral profile discrimination task (Poster)
- (no paper) Auditory profile analysis: Effects of asynchrony and ear of presentation (Poster)

1pSAa Structural Acoustics and Vibration: Inverse Problems in Structural Acoustics I

- (no paper) An overview of the inverse problem for sound reconstruction in interior spaces
- (no paper) Problem of reconstructing the full vibration field from limited data
- (no paper) An overview of reconstructing acoustic pressure fields using the HELS method
- (no paper) Some inverse problems in structural acoustics
- (no paper) Identification of forces by the RIFF method
- (no paper) Source localization on a "fuzzy structure" beam using matched-field processing
- (no paper) Inverse scattering of acoustic waves by two elastic shells in water
- (no paper) An inversion approach based on multiple-aspect resonance analysis of finite cylindrical shells in water
- (no paper) High spatially sampled interior acoustic measurements of a turboprop aircraft for nearfield acoustic holography (NAH) algorithm development
- (no paper) Force spectra identification by FRF matrix inversion: A sensor placement criterion
- (no paper) Experimental reconstruction of the vibration field in a cylindrical shell

1pSAb Structural Acoustics and Vibration: International Workshop on Active Noise and Vibration Control - - Signal Processing and Controllers for Active Control

- (no paper) Iterative feedback control design for active vibration control
- 1PSAB__2 Jer-Nan Juang, Kenneth W. Eure**
Predictive feedback control for systems with unknown disturbances
- 1PSAB__3 Marcus Bronzel, Holger Boche, Thomas Kuhwald**
Constrained beamformer optimization for adaptive antenna arrays
- (no paper) [cancelled; discussion or break]
- 1PSAB__5 Minh Q. Phan, Jer-Nan Juang, Kenneth W. Eure**
Design of predictive controller for simultaneous feedback stabilization and disturbance rejection from disturbance-corrupted data
- 1PSAB__6 Jonathan Cook, Steve Elliott**
Multichannel signal decorrelation using a generalisation of the prediction error filter
- 1PSAB__7 Wolfgang Klippel**
Nonlinear adaptive controller for electrodynamic transducers without additional sensor
- 1PSAB__8 Luis Vicente, Enrique Masgrau**
Fast convergence algorithms for active noise control in vehicles
- 1PSAB__9 Leon H. Sibul, Michael J. Roan, Gregory A. Babich**
Application of nonlinear adaptive signal processing techniques to blind source separation and interference suppression
- 1PSAB_10 V. Zimpfer, K. Buck**
Digital filter used in feedback loop of ANR hearing protectors
- 1PSAB_11 Antonio Minguez, Manuel Recuero**
A control friendly software to convert a low-cost DSP board into a powerful active noise controller
- (no paper) Adaptive compensation of noise in a sonar system

1pSCa Speech Communication: Speech Quality in Telecommunications

(no paper) Methods for subjective assessment of service quality: Milestones to customer-centered quality engineering

(no paper) Speech quality and the E-model

**1PSCA__3 Frank Kettler, Hans Wilhelm Gierlich, Winfried Krebber
Hands-free car kits - A performance discussion of "state of the art"-solutions -**

(no paper) Scenarios for economic conversation tests in telephone speech quality assessment

(no paper) Expectation in quality assessment of internet telephony

(no paper) Speech quality evaluation: Auditory and instrumental procedures

(no paper) Psychoacoustically motivated objective speech quality evaluation procedures

**1PSCA__8 Rafał Królikowski, Andrzej Czyżewski
Noise reduction in acoustic signals using the perceptual coding**

(no paper) Application of auditory contours to speech quality measurements

**1PSCA_10 Wojciech Majewski, Wojciech Myślecki
Application of automatic speech recognition to evaluation of speech transmission quality**

(no paper) Instrumental speech-quality measures: New insights, ideas and results

1pSCb Speech Communication: Data Based Speech Synthesis and Analysis I (Poster Session)

- (no paper) [cancelled] (Poster)
- (no paper) Issues in the design of an advanced unit selection method for natural sounding concatenative synthesis (Poster)
- 1PSCB__3 Ralf Th. Pietsch, Arild Lacroix**
System for wideband speech coding based on recursive filterbanks (Poster)
- (no paper) Selection of crossfade regions for concatenation of demisyllable units (Poster)
- 1PSCB__5 Jörn Anemüller**
Correlated modulation: a criterion for blind source separation (Poster)
- (no paper) A combined wideband speech and audio coder using human articulatory and auditory models (Poster)
- (no paper) Evaluation of monaural and binaural speech enhancement for robust auditory-based automatic speech recognition (Poster)
- 1PSCB__8 Grażyna Demenko, Wiktor Jassem**
A text-to-speech oriented comparison of English and Polish intonation (Poster)
- (no paper) Blind deconvolution using short time cepstrum frame subtraction (Poster)
- 1PSCB_10 Alistair Conkie**
Robust unit selection system for speech synthesis (Poster)
- 1PSCB_11 Heiko Freienstein, Knut Müller, Hans Werner Strube**
Vocal-tract parameter estimation from formant patterns (Poster)
- (no paper) Blueprint of a biomechanical model of vocal tract structures (Poster)
- 1PSCB_13 M. I. Abdallah, M. Abd El Gawad Saif, A. I. El Mallawany, H. S. Sedik**
Arabic figures recognition based on formant analysis using artificial neural networks (Poster)
- (no paper) [cancelled] (Poster)

1pSP Signal Processing in Acoustics and Psychological and Physiological Acoustics: Auditory Displays

- 1PSP__1 Tapio Lokki, Lauri Savioja, Jyri Huopaniemi, Rami Hänninen, Tommi Ilmonen, Jarmo Hiipakka, Ville Pulkki, Riitta Väänänen, Tapio Takala**
Virtual concerts in virtual spaces - in real time
- 1PSP__2 William L. Martens, Jens Herder**
Perceptual criteria for eliminating reflectors and occluders from the rendering of environmental sound
- 1PSP__3 Winfried Krebber, H. W. Gierlich**
Auditory displays using loudspeaker reproduction
- (no paper) Spatial auditory displays for speech communications: A comparison of free field and virtual acoustic environments
- 1PSP__5 E. Milios, B. Kapralos, S. Stergiopoulos**
Sonification of range information for 3-D space perception
- 1PSP__6 Mark Houben, Luuk Franssen, Armin Kohlrausch, Dik Hermes, Berry Eggen**
Auditory perception of the size and velocity of rolling balls
- 1PSP__7 William L. Martens, Jens Herder, Yoshiki Shiba**
A filtering model for efficient rendering of the spatial image of an occluded virtual source
- (no paper) Communication and 3-D sound: Speech intelligibility and speaker recognition
- (no paper) Simplified auralisation of reflections in a virtual auditory environment
- (no paper) [cancelled; discussion or break]
- 1PSP__11 Stéphanie Viollon, Catherine Lavandier, Carolyn Drake**
A sound judgment depending on the urban visual setting?
- (no paper) discussion + audience sign-up for the presentation in the multichannel studio

1pUW Underwater Acoustics: Wave Propagation: Session in Honor of Leonid M. Brekhovskikh I

- (no paper) Acoustic thermometry of ocean climate (ATOC)
- (no paper) Leonid Brekhovskikh: The man and the scientist
- (no paper) Theory of sound propagation in the ocean: A tribute to L. M. Brekhovskikh

1PUW__4 Dinghua Guan Development of underwater acoustics in China and L.M. Brekhovskikh's early activities in China

- (no paper) [cancelled; discussion or break]
- (no paper) Leonid M. Brekhovskikh and his scientific school
- (no paper) Applications of the waveguide invariant approach
- (no paper) Wave diffraction at reflection and propagation in layered media

1PUW__9 Leonid Brekhovskikh My life in science, my teachers, pupils and friends

2a - TUESDAY MORNING, 16 MARCH 1999

2aAAa Architectural Acoustics: Modeling of Halls; Halls with Special Features

- (no paper) Room acoustic simulation in the planning of concert halls and opera houses
- (no paper) Scale model experiences in concert and opera hall design
- 2AAAA_3 Anders Chr. Gade, Niels Vilhelm Jordan**
Recent multi purpose hall designs in Denmark with physically variable acoustics
- (no paper) Variable-volume/coupled-volume response at Sala Julia Prestes
- 2AAAA_5 Robert Essert**
Links between concert hall geometry, objective parameters and sound quality
- 2AAAA_6 Christopher Jaffe, Mark Holden, Robert Lilkendey**
Consistency in acoustic design when building symphonic performance halls
- 2AAAA_7 Robert W. Wolff, Damian J. Doria, Thomas M. Young**
Hammerson Hall, the living arts centre in Mississauga, Ontario
- 2AAAA_8 Kyoungsoo Park, Chulmin Choi, Yeongha Choi, Koeng-Mo Sung**
Assessing and optimizing the acoustical parameters of concert halls for Korean traditional music
- (no paper) Acoustical design of the Walt Disney Concert Hall in Los Angeles
- 2AAAA_10 Dawn R. Schuette, Scott D. Pfeiffer**
The acoustic evolution of Chicago's orchestra hall: Construction details
- 2AAAA_11 Anssi Ruusuvuori**
Sopukka, the new experimental stage of the Turku City Theatre
- 2AAAA_12 Russell Cooper, Pamela Clements**
Excellent acoustics and a low RT? A case study of the recent renovation of the John F. Kennedy Center Concert Hall
- 2AAAA_13 Marius Smigelschi, Radu Pana, Alexandru Badescu, Gabriel Negoescu**
CAAD architectural and acoustical design (Poster)

2aAAb Architectural Acoustics and Noise: Modeling of Noise in Work Rooms

- (no paper) Prediction of noise in workrooms including extended sources, directivity of radiation and screening
- 2AAAB__2 Jürgen H. Maue**
Experiences with the application of a software for noise prediction in workrooms
- 2AAAB__3 Uwe M. Stephenson**
Is it worth applying sound particle scattering methods to sound propagation in factory halls?
- 2AAAB__4 D. N. Lewis**
Modelling of noise in factory workrooms - A practical perspective
- 2AAAB__5 S. M. Dance, B. M. Shield**
The comparison of five computer models for the prediction of sound propagation in industrial rooms
- 2AAAB__6 Murray Hodgson, Nelson Heerema, Kurtis Halington**
Prediction, visualization and auralization of noise in industrial workrooms during computer "walk-through"
- (no paper) An adaptive beam tracing method for room acoustics prediction
- 2AAAB__8 Ernst Joachim Voelker, Sabine Fischer**
Call center as an acoustical challenge for modern working places in offices
- 2AAAB__9 Lia Kortchmar, Michael Vorländer, Jules G. Slama**
Acoustic quality at workplaces
- 2AAAB_10 Claus Lynge Christensen**
Modelling large sound sources in a room acoustical calculation program
- (no paper) discussion

2aAB Animal Bioacoustics: Physics of Animal Bioacoustics I

(no paper) Insect sounds in agriculture

2AAB__2 D. Robert
Directional hearing in small animals: Tympanal mechanics and evolutionary innovations

2AAB__3 Marc Holderied, Johannes Schul, Dagmar von Helversen, Otto von Helversen
Directional hearing in grasshoppers: Biophysical mechanisms and animal performance

(no paper) Middle ear adaptations in an old world amphibian

(no paper) The traveling-wave amplifier model of the cochlea adapted to dolphins

(no paper) An excitation of surface acoustic waves in the ear canal

2AAB__7 Gunther Tschuch, Denis J. Brothers
Sound production in wasps and ants (Hymenoptera)

(no paper) The target strength of the northern right whale (*Eubalaena glacialis*)

(no paper) [cancelled; discussion or break]

(no paper) Physical constraints on blue whale sound production mechanisms derived from matched-field processing

(no paper) Using broadband humpback whale vocalizations to locate nonvocal whales in shallow water

(no paper) Anthropogenic ocean noise; negligible or negligent impact?

2aAO Acoustical Oceanography: Innovations in Fish and Plankton Acoustics I

- (no paper) A seven-octave-bandwidth echo sounding system for application to fish and zooplankton
- (no paper) A multiple-frequency method for potentially improving the accuracy and precision of in-situ target strength measurements
- (no paper) The investigation of physiologically-controlled resonance scattering data from fish using a new acoustic approach
- (no paper) [cancelled; discussion or break]
- (no paper) Acoustic observations of the annual cycle of fish and plankton populations in the Beaufort Sea
- (no paper) Acoustic abundance estimation of midwater animals
- (no paper) [cancelled; discussion or break]
- (no paper) Multi-frequency measures and models of Lake whitefish (*Coregonus clupeaformis*) backscatter from Lake Michigan
- (no paper) Status and distribution of the dolphins in the Black Sea by acoustically improved line transect sampling technique
- 2AAO__10 D. G. Reid, R. Aukland**
Schools and clusters: Interannual variability in the aggregative behavior of North Sea herring from acoustic surveys
- 2AAO__11 Patrick Schneider**
Assessing the relationships between oceanographic parameters and fish distribution: Methodological access and potential problems
- 2AAO__12 E. J. Simmonds, F. Gerlotto, P. G. Fernandes, D. N. MacLennan**
Observation and extraction of three dimensional information on fish schools

2aEA Engineering Acoustics: Silicon Sensors

- 2AEA__1 Marc Fischer, Gerhard M. Sessler**
Silicon microphones: An overview
- 2AEA__2 A. Dehé, R. Aigner, T. Bever, K.-G. Oppermann, E. Pettenpaul, S. Schmitt, H.-J. Timme**
Silicon micromachined microphone chip at Siemens
- 2AEA__3 Pirmin Rombach, Matthias Müllenborn, Udo Klein, Roger Frehoff**
A low-voltage silicon condenser microphone for hearing instrument applications
- 2AEA__4 Quanbo Zou, Rongming Lin, Jianmin Miao**
Silicon capacitive microphones with corrugated diaphragms
- (no paper) A novel microelectromechanical system (MEMS) design for an underwater acoustic field sensor
- 2AEA__6 Zdeněk Škvor, Axel Stoffel**
Slot silicon microphone: An analytical and experimental study
- 2AEA__7 Libor Cerny**
Model measurement of microphone arrays
- 2AEA__8 Jan Škvor**
Theoretical and experimental study of an electrostatic transducer with a non-planar backplate
- 2AEA__9 Emmanuel Bigler, Jean-Bernard Briot**
A comparison of surface transverse wave propagation on quartz and gallium orthophosphate
- 2AEA__10 Martin Klaiber**
An integrated-optical silicon microphone with a Fabry-Perot cavity as modulator
- (no paper) Development of compact fiber optic microphones

2aMU Musical Acoustics: Modeling Versus Measurements of Wind Instruments

- (no paper) Mouth tones of flue organ pipes: A control of sound aesthetics
- (no paper) Numerical calculations of woodwind impedances without adequate experimental data: Personal experiences
- (no paper) Flow and upstream impedance in wind instruments
- (no paper) Why are historical brass instruments hard to play in tune?
- 2AMU__5 Seiji Adachi**
Modeling of air-jet driven instruments: An unstable jet driven by pressure gradient (Poster)
- 2AMU__6 James P. Cottingham, Christopher H. Reed, Michael Busha**
Variation of frequency with blowing pressure for an air-driven free reed (Poster)
- 2AMU__7 Shigeru Yoshikawa**
Jet and vortex behaviors visualized during the starting transient in organ pipes (Poster)
- (no paper) Foot resonance in organ pipe (Poster) (Poster)
- 2AMU__9 Magdalena Klapper-Rybicka**
Analysis of time-frequency structure of woodwinds sounds, using discrete wavelet transform (Poster)
- (no paper) Attack transients of free reed organ pipes (Poster) (Poster)
- 2AMU__11 Vincent Rioux, Daniel Västfjäll, Munetaka Yokota, Mendel Kleiner**
Noise quality of transient sounds: Perception of "hiss" in a flue organ pipe (Poster)
- (no paper) Experimental investigations of wall influences on woodwind instrument sound (Poster) (Poster)
- (no paper) Mechanical response of artificial buzzing lips (Poster) (Poster)
- (no paper) Reed instruments, from small to large periodic oscillations (Poster) (Poster)
- 2AMU__15 Lamberto Tronchin, Alessandro Cocchi**
A virtual reconstruction of trumpet (Poster)
- (no paper) The wave digital filter brass mouthpiece model (Poster) (Poster)
- 2AMU__17 Wilfried Kausel, Paul Anglmayer**
A computer program for brass instrument optimization. Part I. Concept and implementation (Poster)
- 2AMU__18 Paul Anglmayer, Wilfried Kausel**
A computer program for brass instrument optimization. Part II. Applications, practical examples (Poster)
- 2AMU__19 Malte Kob, Harald Jers**
Directivity measurement of a singer (Poster)

2aNSa Noise: Community Noise Annoyance

- 2ANSA__1 Rainer Guski**
Limits of utility of dosage-response analysis for predicting the prevalence of annoyance
- (no paper) Panel discussion
- (no paper) Joint noise annoyance: A field evaluation of models concerning road and railway exposure
- (no paper) Panel discussion
- (no paper) Social survey of the annoyance of low frequency aircraft ground noise
- (no paper) Panel discussion
- 2ANSA__4 Brigitte Schulte-Fortkamp**
Measurements of noise annoyance: Decisions on appropriate evaluation procedures in field and laboratory settings
- (no paper) Panel discussion
- (no paper) Predicting the joint annoyance of multiple noise sources
- (no paper) Panel discussion
- 2ANSA__6 Jiro Kaku, Tohru Kato, Sonoko Kuwano, Seiichiro Namba**
Predicting overall reaction to multiple noise sources
- (no paper) Panel discussion

2aNSb Noise: Computational Aeroacoustics I: Numerical Simulation of Jet and Shear Flow Noise

- (no paper) Jet noise simulations using the nonlinear disturbance equations
- (no paper) Numerical simulation of jet noise: Fundamental issues, progress and outlook
- (no paper) Numerical simulation of jet screech tones

2ANSB__4 San-Yih Lin, Jen-Jiun Hu Inviscid and viscous computations of supersonic jets

- (no paper) Direct numerical simulation of sound generation in turbulent shear flows
- (no paper) Vortex dynamics, transition to turbulence, and aeroacoustics in rectangular free jets

2ANSB__7 Philippe Lafon Use of linearized Euler equations for subsonic flow noise prediction

2ANSB__8 E. J. Avital, K. H. Luo, N. D. Sandham Analysis of sound generated by free shear flows using direct numerical simulations

2aNSc Noise: Hearing Conservation Program Effectiveness

- 2ANSC__1 Christine Harrison**
Hearing conservation program effectiveness - A Canadian perspective
- (no paper) Distortion product otoacoustic emissions - Valuable method for hearing conservation programs?
- 2ANSC__3 Karl Körpert**
Hearing thresholds of 15 to 18 year old pupils and apprentices
- 2ANSC__4 Krystyna M. Pawlas**
Assessment of hearing conservation program implemented in chosen plants in Poland
- (no paper) ANSI S12.13: Using audiometric data variability to assess hearing conservation success or failure
- (no paper) An overview of hearing conservation practices in the USA
- (no paper) Research strategies for evaluating effectiveness of industrial hearing loss prevention programs (HLLP)
- (no paper) Assessment of methods for determining field-equivalent sound levels from real-ear and manikin measurements
- (no paper) The confounding influence of collapsing the ear canal on audiological assessment of noise-exposed workers (Poster)

2aPAa Physical Acoustics: Thermoacoustics I

- (no paper) Thermoacoustic natural gas liquefier
- (no paper) A pistonless Stirling engine - A new direction in thermoacoustics
- (no paper) The thermoacoustic oscillator as a musical instrument
- (no paper) Measurements of the performance of a thermoacoustic refrigerator prototype
- (no paper) Measurements of thermoacoustic functions for unusual stacks
- (no paper) Conventional heat exchanger design methods and their applicability to thermoacoustics
- (no paper) Computational analysis of a thermoacoustic refrigerator
- (no paper) Effects of gas mixture on a thermoacoustic refrigerator driven at high amplitudes
- (no paper) Experimental verification of Rayleigh's interpretation for thermoacoustic Sondhauss-type oscillations

2APAA_10 Pierrick Lotton, Hélène Bailliet, Michel Bruneau, Vitali Gusev
Thermoacoustic resonator and its sound source: Model of the coupling and experiments

2aPAb Physical Acoustics: Ultrasonic Imaging: Diagnostic Methods in Material Testing and Medicine

- (no paper) Acoustic wave field imaging and measurement by scanning probe methods
- (no paper) Acoustic images at the nanometer scale - why and how?
- (no paper) Atomic force acoustic microscopy: Acoustical imaging on the nm-scale
- (no paper) Material characterization using micro machined air transducers
- (no paper) Imaging with a 16,000 element 2D array
- (no paper) Time-domain ultrasound diffraction tomography
- (no paper) Transient elastography in biological tissues
- (no paper) Comparison between first and second harmonic imaging in ultrasound tomography
- (no paper) Amplitude dependence of down-converted acoustic waves due to a nonlinear force interaction
- (no paper) [cancelled; discussion or break]
- (no paper) A new method for nonlinear nondestructive testing of development defects inside inhomogeneous solids

2APAB_12 J.-P. Lefebvre, S. Mensah, P. Lasaygues, A. Wirgin, S. Delamare Investigation in ultrasonic tomography

- (no paper) Nonlinear acoustic testing of defects for evaluation of risk of insurance of the thermal electric power stations (Poster)
- (no paper) Experience in nonlinear wave testing of constructions inside the earthquake area (Poster)
- (no paper) Experiments in solids using air-coupled ultrasound (Poster)

2aPac Physical Acoustics: Interaction of Acoustic Fields with Suspended Particles I

- (no paper) Separation of aerosol fine particles by high power ultrasound
- (no paper) Studying drop cluster and array behavior using an acousto-electric levitator
- (no paper) Generation of a standing wave field using crossing sound beams for acoustic micro-manipulation
- (no paper) Ultrasonic micro-manipulation of particles and effects of acoustic streaming
- (no paper) Studies of particle separation using acoustophoresis
- (no paper) Analysis of composite resonators for ultrasonic micromanipulation and separation
- (no paper) Scattering enhancements and resonator frequency shifts resulting from the interaction between ultrasonic fields and suspended particles and bubbles
- 2APAC__8 Donald L. Feke, Alan E. Penrod**
Agglomeration and collection of suspended particles using resonant acoustic fields within porous media
- 2APAC__9 W.T. Coakley**
Ultrasonic cell micro-manipulation and separation
- (no paper) Acoustic and electroacoustic spectroscopy for concentrated dispersions and emulsions

2aPAd Physical Acoustics: Cavitation Physics and Sonoluminescence II

- (no paper) Stimulating sonoluminescence
- (no paper) Sonoluminescence light emission
- (no paper) Computed optical emissions from a star in a jar
- (no paper) Water vapor and sonoluminescence
- (no paper) Optimal resonant stimulation of sonoluminescence
- (no paper) Sonoluminescing bubbles rectify argon: Comparing predictions with latest experiments

2APAD__7 Ralf Günther Acoustics within nonlinearly driven cavities

- (no paper) The search for electrical discharges from single and multi-bubble sonoluminescence
- (no paper) Multibubble sonoluminescence at 2MHz: Optical spectral data and attempt at interpretation

2APAD_10 Ursula H. Augsdörfer, Allan K. Evans, David P. Oxley The stability of micro-bubbles and sonoluminescence

- (no paper) Numerical simulations of stationary single-bubble sonoluminescence

2aPPa Psychological and Physiological Acoustics: The Role of Peripheral Compression in Hearing

- (no paper) Amplification and compression in the cochlea
- (no paper) Measurements of peripheral compression using forward masking and pulsation threshold
- (no paper) Nonlinear cochlear processing of harmonic complexes
- (no paper) Loudness and ABR findings with short signals: More compression than expected?
- (no paper) On the relation between peripheral compression and the growth of loudness
- (no paper) Relationship between loudness perception and peripheral compression in subjects with unilateral cochlear hearing loss

2APPA__7 Martin Steurer Non-linear amplification in the cochlea - Implications of a computer model

- (no paper) Monaural, cross-frequency coincidence detection as a mechanism for decoding perceptual cues provided by the cochlear amplifier
- (no paper) Benefits of nonlinear active gain for detection of brief probes in Schroeder-phase complex maskers
- (no paper) Loudness fluctuation and temporal masking in normal and hearing impaired listeners
- (no paper) Relation of long-term adaptation to the loudness-function slope

2aPPb Psychological and Physiological Acoustics: Spatial Factors in Binaural Hearing (Poster Session)

- (no paper) Near-field localization in echoic rooms (Poster)
- (no paper) The effect of sentence onset asynchrony on call sign detection and message intelligibility in a simulated "cocktail party" (Poster)
- (no paper) Speech intelligibility in real and virtual adverse auditory environments (Poster)
- (no paper) Monaural and binaural minimum audible angles for virtual sound sources (Poster)
- (no paper) The cocktail party effect with conversational speech (Poster)

2APPB__6 Barbara S. Muller, Pierre Bovet Monaural azimuth sound localization with linguistic and pseudo-linguistic stimuli (Poster)

- (no paper) Aided and unaided performance on a clinical test of sound localization (Poster)
- (no paper) Auditory spatial attention influences discrimination of interaural time differences: Evidence from a probe-signal paradigm (Poster)
- (no paper) Effects of low-frequency thresholds on sound-source identification in the frontal horizontal plane using interaural time difference cues (Poster)

2APPB_10 Jürgen Altmann Acoustic weapons? Sources and propagation of strong sound (Poster)

2aSAa Structural Acoustics and Vibration: Inverse Problems in Structural Acoustics II

(no paper) [cancelled; discussion or break]

**2ASAA__2 S. Gade, H. Herlufsen, H. Konstantin-Hansen, H. Vold
Order tracking using the Vold-Kalman tracking filter**

(no paper) Characterization of complex systems from inverse radiative transfer measurements

(no paper) Indirect determination of input forces generated by the pump of a watercraft under operating conditions: Some guidelines

(no paper) Sensor proximity error in the conformal nearfield acoustic holography and its solution by using the nonsingular boundary integral equation

**2ASAA__6 C. Marquis-Favre, N. Hamzaoui, C. Boisson
A vibroacoustic inverse problem regularized by SVD technique coupled with Miller method**

2aSAb Structural Acoustics and Vibration: International Workshop on Active Noise and Vibration Control - - Active Control of Structural Vibration

- 2ASAB__1 Linus Pettersson, Lars Håkansson, Ingvar Claesson, Thomas Lagö**
Piezo ceramic actuators versus high magnetostrictive actuators in the active control of tool vibration
- (no paper) Control of vibration of flexible manipulators
- (no paper) Real-time control of a vibrating plate excited by a turbulent boundary layer
- (no paper) Semi-active damping of vibration in mixing or propelling systems
- (no paper) A distributed active vibration absorber for sound radiation and vibration control
- 2ASAB__6 Marc J. Serrand, Stephen J. Elliot**
Multichannel feedback control for the isolation of equipment from base vibration
- 2ASAB__7 George J. Stein**
Smart/intelligent vibration and shock control by active or semi-active means

2aSCa Speech Communication: Data Based Speech Synthesis II

(no paper) Rules, measures and corpora for speech synthesis

(no paper) An overview of Microsofts whistler text-to-speech system

(no paper) Data-driven speech synthesis

(no paper) discussion

**2ASCA__4 M. Beutnagel, A. Conkie, J. Schroeter, Y. Stylianou, A. Syrdal
The AT&T next-gen TTS system**

(no paper) Domain-specific prominence-based concatenation

**2ASCA__6 Diane Hirschfeld
Phonetic transcriptions - Aligning canonical and pronunciation forms**

(no paper) discussion

**2ASCA__7 Martin Holzapfel
HMM based database segmentation and unit selection for concatenative speech synthesis**

(no paper) Waveform models for data-driven speech synthesis

(no paper) Concatenative synthesis with subwords for restricted-prosody applications

(no paper) discussion

2aSCb Speech Communication: Cross Language and L2 Phonetics I

- (no paper) Spoken word recognition by non-native listeners
- (no paper) The role of speaking rate in the perception of L2 speech
- (no paper) Toward further understanding of second language speech learning: An approach utilizing speech technology
- 2ASCB__4 Thorsten Piske, James E. Flege, Ian R. A. MacKay, Diane Meador**
Non-natives' production of vowels in conversational speech
- 2ASCB__5 James Flege, Grace H. Yeni-Komshian, Serena Liu**
Age constrains the learning of L2 phonology but not morphosyntax
- (no paper) On what it takes to predict perceptual difficulty in cross-language vowel perception
- (no paper) Phonemic repertoire effects in lexical activation
- (no paper) Native-language phonetic and phonological constraints on perception of non-native speech contrasts
- (no paper) Cortical representation of language in monolinguals and bilinguals
- (no paper) Research in cross-language and second-language speech perception and production: Issues, trends and future directions
- (no paper) discussion

2aSP Signal Processing in Acoustics: Acoustic Image Synthesis for Arbitrary Listeners

- (no paper) Are individualized head related transfer functions required for auditory information displays?
- (no paper) [cancelled; discussion or break]
- (no paper) Relearning sound localization with new ears
- (no paper) Explaining individual differences in head-related transfer functions
- (no paper) Adapting head-related transfer functions to individual listeners
- (no paper) The contribution of spectral cues to human sound localization
- (no paper) Sound localization using other people's ears

2ASP__8 Rozenn Nicol, Marc Emerit
Holophony versus Ambisonic: Deriving a hybrid method for 3D-sound reproduction in videoconferencing

2aUWa Underwater Acoustics, Acoustical Oceanography and Physical Acoustics:

Acoustics and the Comprehensive Test Ban Treaty I

2AUWA__1 **Martin W. Lawrence**

Overview of the hydroacoustic monitoring system for the Comprehensive Nuclear-Test-Ban Treaty

- (no paper) Acoustic source calculations for nuclear bursts
- (no paper) Hydroacoustic monitoring of the oceans
- (no paper) Hydroacoustics in monitoring the comprehensive test ban treaty
- (no paper) Automated detection of underwater explosions by the IMS hydroacoustic network
- (no paper) Characterization of reflected hydroacoustic signals for CTBT localization
- (no paper) Modeling hydroacoustic waveform envelopes for comprehensive test ban treaty monitoring
- (no paper) Propagation modeling of T-phase time series via RDOASES
- (no paper) Normal mode composition of earthquake T phases recorded in the deep ocean
- (no paper) Progress in the implementation of the T-phase subnetwork for monitoring oceans
- (no paper) Perturbative eigenvalue techniques for global-scale hydro-acoustic pulse propagation

2aUWb Underwater Acoustics: Rapid Ocean Environmental Assessment

(no paper) Rapid response, A demonstration of ocean assessment capabilities

(no paper) Rapid assessment of undersea ambient noise

2AUWB__3 John R. Preston, Dale D. Ellis
Summary of bottom reverberation findings and model/data comparisons during three rapid environmental assessment trials

(no paper) Shallow water REA using autonomous ocean sampling networks

(no paper) Rapid assessment of bottom backscattering

(no paper) In-situ update of geo-parameter database

(no paper) Preliminary results from at-sea tests of the autonomous buoyed environmental sensor system (ABES)

(no paper) Estimation of modal eigenvalues from an arbitrary distribution of receivers in a planar array

2AUWB__9 B.T. Cox, P. Joseph
Bottom reflection phase inversion using modal dispersion curves

2AUWB_10 Dale D. Ellis, John R. Preston
Extracting sea-bottom information from reverberation data

2AUWB_11 Steven Kay, S. Bradford Doyle
Estimation of the channel scattering function

2p - TUESDAY AFTERNOON, 16 MARCH 1999

2pAAa Architectural Acoustics: Worship and Theater Spaces

- 2PAAA__1** **Emmanuel Tzekakis, Gottfried Schubert**
The acoustical design of a new open air theatre in Thessaloniki, Greece
- 2PAAA__2** **Gottfried Schubert, Emmanuel G. Tzekakis**
The ancient Greek theater and its acoustical quality for contemporary performances
- 2PAAA__3** **Russell Richardson, Bridget Shield**
Acoustic measurements of Shakespeare's Globe Theatre, London
- 2PAAA__4** **Weihwa Chiang, Zengjang Juang**
Acoustical evaluation of auditoriums in Taiwan built before 1975
- (no paper) Restoration by means of sound reinforcement of a church of the Renaissance
- 2PAAA__6** **Zerhan Karabiber**
Acoustical problems in mosques: A case study on the three mosques in Istanbul
- (no paper) [cancelled] (Poster)
- 2PAAA__8** **M. Galindo, T. Zamarreno, S. Girón, J. J. Sendra, J. Navarro**
Simulated acoustic field in mudejar-gothic churches (Poster)

2pAAb Architectural Acoustics: Perceptual Aspects in Rooms

- 2PAAB__1** **Yukio Suzumura, Yoichi Ando, Itaru Yamamoto, Tosiki Iizuka, Masanao Ohwaki**
Effects of scattered reflection in sound field examined by use of a 1/10 scale model of concert hall
- 2PAAB__2** **Martin A. Gold**
Listener evaluations of the acoustic qualities spatial impression and auditory source width in rooms and over headphones
- 2PAAB__3** **Junko Atagi, Yoichi Ando, Yasutaka Ueda**
Controls of a modulated delay time of reflection enhancing subjective preference
- 2PAAB__4** **Paul T. Calamia, Scott D. Pfeiffer**
The perception and measurement of edge diffraction in three concert halls
- (no paper) Influence of sensory interactions between vision and audition on the perceptual characterisation of room acoustics
- (no paper) Perception of sweep sounds caused by reflective pulse train in a rectangular reverberation room
- (no paper) Appropriate band width and integration time for measurements of the degree of interaural cross-correlation as a measure of apparent source width in concert halls (Poster)
- 2PAAB__8** **Vytautas J. Stauskis**
The interrelation between the music sound "clarity" index C 80 and the subjective evaluation of the hall acoustics (Poster)

2pAB Animal Bioacoustics: Physics of Animal Bioacoustics II

(no paper) Biophysics of peripheral auditory systems in three teleost fish

(no paper) [cancelled; discussion or break]

(no paper) Whistle signals of sturgeons and cetaceans

2PAB__4 Joseph A. Clark, Jane A. Young, Joel B. Gaspin
Validation of a system for synthesizing distant signatures of underwater explosions for sea mammal hearing studies

(no paper) Information entropy of humpback whale song

(no paper) Ultrasound-mediated transformation of prokaryotic cells

(no paper) On interfacing physics with electrophysiology in echolocation in bats

(no paper) Bisonar in a textured world

(no paper) Modeling the role of non-human vocal membranes in phonation

(no paper) Middle ear frequency characteristics of Norwegian cattle

2pAO Acoustical Oceanography: Innovations in Fish and Plankton Acoustics II

- (no paper) High resolution target strength measurements in deep water
- 2PAO__2 Ingvald Svellingen, Egil Ona**
A summary of target strength observations on fishes from the shelf off West Africa
- (no paper) Resonance frequencies of absorption lines due to pelagic fish
- 2PAO__4 David T.I. Francis, Lucio Calise, Kenneth G. Foote, Tor Knutsen**
Modelling the target strength of *Calanus finmarchicus*
- (no paper) Comparing predictions from backscatter models to in situ measurements of a dual-chambered, swimbladdered fish
- (no paper) [cancelled; discussion or break]
- (no paper) Analyzing ship-borne acoustic Doppler current profiler measurements to estimate the vertical and spatial distribution of southern Black Sea zooplankton
- 2PAO__8 Andrzej Stepnowski, Tran Van Dung, Joanna Maciulowska**
Analysis of the neuro-fuzzy classifiers for fish species identification and bottom typing from acoustic echoes
- (no paper) Improving echograms resolution by wide band pulse compression and dynamic focusing
- 2PAO__10 Olav Rune Godø, Atle Totland**
Bergen Acoustic Buoy (BAB) - A tool for remote monitoring of marine resources
- 2PAO__11 Ken Ishii, Kouichi Sawada, Yoichi Miyanoana**
Design of a transducer-positioning system scanning around an aquatic target in a tank

2pEA Engineering Acoustics: Microphones, Measurements, etc

- 2PEA__1 Jörg Sennheiser**
Micro-miniaturized microphone for communication applications
- 2PEA__2 W. Niehoff**
The optical microphone using glass fibre technology
- (no paper) Microphone calibration techniques
- (no paper) Optical measuring and calibration techniques for microphones
- 2PEA__5 Christos A. Goussios, George V. Papanikolaou, George M. Kalliris**
New design concepts for the construction of an omnidirectional sound source
- (no paper) Simulation of ultrasonic fields in composite media with planar boundaries
- 2PEA__7 Vygantas Augutis, Darius Gailius**
Wideband ultrasonic piezoelectric microphones
- 2PEA__8 Ulrich Ackermann**
Simple method to estimate the absorption coefficient of porous absorbers
- (no paper) [cancelled; discussion or break]
- 2PEA__10 T. Niederdraenk, R. Thaden**
Experimental investigation of bending waves in ultrasonic reactors
- 2PEA__11 C. Ranz Guerra, P. Cobo Parra**
Underwater acoustic tank evaluation of acoustic properties of samples using spectrally dense signals
- (no paper) Mechanical impedance of wheeled tractor steering mechanism

2pMU Musical Acoustics: Musical Acoustics and the Musician

(no paper) The perception of music by the human brain: An introductory course

**2PMU__2 Knut Guettler
Musical acoustics, the music student and the music teacher**

(no paper) Acoustical training for stringed instrument makers

(no paper) Intensive training on acoustics of pipe organs for organ builders and organists

(no paper) Acoustic loading exercises in singing training

(no paper) Illustrating music performance principles by synthesis

**2PMU__7 Gerald Bennett
Musical acoustics and contemporary composition**

**2PMU__8 R. Dean Ayers, Thomas D. Rossing
Teaching musical acoustics**

(no paper) Measurement of performance response differences when striking different areas of a marimba bar

(no paper) Control index of the upright and grand piano actions

(no paper) An artificial neural network model for analysis and synthesis of pianists' performance styles

**2PMU__12 Eduardo Castro-Sierra, Martha Gómez-Gama, Miguel Zenker, Santiago J. Pérez-Ruiz
Experience of students of composition and instrument construction at the National School of
Music of UNAM in the auditory normalization of timbre with age and with exposure to
different instruments**

2pNSa Noise: Railway Noise II

- 2PNSA__1 Markus Hecht**
Today's rail-freight noise situation
- 2PNSA__2 Hans Zimmer, Ansgar Hövelmann**
Cause research and assessment of the acoustic behavior of rail vehicles using SFE
AKUSRail
- 2PNSA__3 Urmas Ross, Anders Nilsson**
Roughness growth on tread-braked railway wheels: Eurosabot theoretical studies
- 2PNSA__4 Stefan Bühler**
Eurosabot field measurements - methods and results
- (no paper) [cancelled; discussion or break]
- (no paper) Experiments and computations of noise reduction by barriers
- (no paper) [cancelled; discussion or break]
- 2PNSA__8 C. Katzenschwanz, G. Hölzl, L. Willenbrink, T. Lölgen**
Acoustical contribution analysis of railway wheels and tracks
- 2PNSA__9 Rik van Haaren, Karel Looijmans**
Empirical formulas for noise of high speed trains
- 2PNSA_10 Berndt W. Zeitler, Michael Möser**
Calculation of the three-dimensional sound radiation of rails using the multipole approach
- (no paper) Vibration assessment in buildings from the underground trains
- 2PNSA_12 J. Peters, G. Prestele**
Prediction of railway-induced vibrations by means of transfer functions (Poster)

2pNSb Noise: Noise at the Workplace I

- 2PNSB__1 Robert D. Bruce**
The last 100 years of magazine articles on noise
- (no paper) Combined effects of noise and whole body vibration in the working environment
- (no paper) Hearing disorders from combined exposures to noise and solvents: A review
- (no paper) Communication and warning signal perception
- (no paper) Noise exposure, hearing loss, and hearing conservation in the construction industry
- (no paper) Assessment and remediation of perceived handicap in subjects with acquired hearing impairment
- 2PNSB__7 Keith A. Broughton**
Noise control guidance for industry
- 2PNSB__8 Ilkka Kyttälä, Erkkö Airo**
Noise declaration of hand held machinery
- 2PNSB__9 Sergio Beristain**
Common problems in noise control projects
- 2PNSB_10 Krystyna M. Pawlas**
Polish system of workers' protection against noise
- 2PNSB_11 Robert M. Lilkendey**
A DRC-based analysis of the auditory hazard from exposure to impact noises generated by carpentry tools and tasks
- (no paper) Auditory damage due to impulses or continuous noise

2pNSc Noise and Physical Acoustics: Experience with Noise Prediction I

(no paper) Remarks on acoustical descriptors for explosions in air

2PNSC__2 Christa Korff
Measurement of acoustical emissions from large-calibre weapons

(no paper) Source data for small arms noise

2PNSC__4 Lars R. Hole
Results from Norwegian sound propagation experiments

(no paper) Measured and computed effect of meteorological condition and ground surface on propagation of impulsive sound to 20 km

(no paper) Blast noise propagation above a snow cover at Haslemoen, Norway

(no paper) Air-ground interaction effects in the propagation of low frequency impulse noise

2PNSC__8 Keith Attenborough
A comparison of engineering methods for predicting ground effect

(no paper) On the applicability of models for outdoor sound

(no paper) Standardization efforts in Germany on the quality of software products for the prediction of environmental sound immission

2PNSC_11 Oleksander Zaporozhets, Vadim Tokarev, Keith Attenborough, Kai Ming Li
Aircraft noise model corrected by operational and propagation effects

(no paper) FLULA2: Aircraft noise prediction and measurements

2pNSd Noise:

Computational Aeroacoustics II: Methodology and Applications

- 2PNSD__1 Christophe Bailly, Daniel Juvé**
Aeroacoustic simulations and stochastic approach using linearized Euler's equations
- 2PNSD__2 E. Manoha, C. Seror, B. Troff, P. Sagaut, G. Rahier**
Computational Aeroacoustics Activities at ONERA using Large Eddy Simulation
- 2PNSD__3 Oktay Baysal, Moumen M. Idres**
Low dispersion schemes for aeroacoustics: Mathematical model and demonstrative cases
- 2PNSD__4 Jae Wook Kim, Choon Myun Jeong, Dae Nyeong Heo, Duck Joo Lee**
Direct computation of sound generation and radiation from a "singing wire"
- (no paper) Acoustic radiation due to gust-airfoil and blade-vortex interactions
- (no paper) On the coupling of inverse problem with computational aeroacoustics

2pNSe **Noise:** **Computational Aeroacoustics III: Further Topics**

2PNSE__1 **Christophe Bogey, Christophe Bailly, Daniel Juvé**
CAA approaches applied to mixing layer noise computation using LES

(no paper) An error analysis for the lattice gas time domain (LGTD) method in CAA

(no paper) Reduction of boundary effects in acoustic analogy application to CFD data basis

2pNSf **Noise:** **Harmonization of Noise Ratings**

(no paper) How many ways is it worth slicing the social survey data cake?

2PNSF__2 Dick B. Botteldooren, Truls Gjestland
Uncertainty in dosage-annoyance relations

(no paper) On using "loudness-weighted" SEL, LEQ and DNL to assess noise environments

(no paper) Soundscape in cities, limits to the noise limits?

(no paper) Time-of-day penalty for aircraft noise

(no paper) Validation of a new procedure for rating shooting sounds with the help of field survey data

(no paper) A new test of validity of a maximum-single-event-level model in the prediction of the community response to artillery sounds

(no paper) Panel discussion

2pPAa Physical Acoustics: Thermoacoustics II

- (no paper) Advances in pulse tube refrigeration
- (no paper) Thermoacoustic instabilities of highly premixed flames in combustors and boilers
- (no paper) Thermoacoustic research at ETH Zurich in the 1990s

2PPAA__4 Robert W. M. Smith, Steven L. Garrett, Robert M. Keolian, John A. Corey High efficiency 2-kW thermoacoustic driver

- (no paper) Performance of a two stack annular prime mover
- (no paper) On validity of mean-field approximation in thermoacoustics
- (no paper) Second order thermoacoustics
- (no paper) Nonlinear saturation of thermoacoustic instability
- (no paper) Acoustic boundary layer phenomena near a corrugated surface
- (no paper) How much pressure drop is necessary for heat transfer (Poster)

2PPAA_11 Thierry Le Polles, Stéphane Job, Hélène Bailliet, Pierrick Lotton, Michel Bruneau, Vitalyi Gusev Threshold condition for travelling-wave excitation in annular prime-mover (Poster)

2pPAb Physical Acoustics: Nonlinear Motion of Bubbles and Drops I

- (no paper) Acoustic levitation, a theoretical and experimental round up
- (no paper) Physics of drop formation
- (no paper) Bubble dynamics and nucleation of ice in supercooled water
- (no paper) Acoustic diagnosis of singing cavitation vortices
- (no paper) [cancelled; discussion or break]
- (no paper) Bubble size distribution near a pressure antinode

2pPac Physical Acoustics: Interaction of Acoustic Fields with Suspended Particles II

- (no paper) The acoustic generation of internal flow and rotation of levitated fluid particles
- 2PPAC__2 C. M. Cousins, P. Holownia, J. J. Hawkes, M. S. Limaye, S. E. Higgins, C. Price, P. Keay, W. T. Coakley**
Clarification of plasma from whole blood using ultrasound
- 2PPAC__3 H. Böhm, P. Anthony, J. B. Power, M. R. Davey, K. C. Lowe, L. G. Briarty, M. Maitz, E. Benes**
Viability of plant cells in ultrasonic fields
- 2PPAC__4 Stefan Radel, Aiden J. McLoughlin, Lisa Gherardini, Ewald Benes**
Viability of yeast cells in propagating ultrasonic waves
- 2PPAC__5 I. L. Holwill, A. T. Martin**
Ultrasonic standing waves to enhance optical particle sizing equipment
- 2PPAC__6 Johannes Spengler, Martin Jekel**
Ultrasonically enhanced sedimentation - Results of a semi-empirical scale-up approach
- (no paper) Ultrasonic splitting of oil-in-water-emulsions
- (no paper) Acoustic deinking of paper; pulse effectiveness in particle detachment
- 2PPAC__9 Jeremy J. Hawkes, Caroline Cousins, W. Terence Coakley, Peter J. Keay**
Particle filtration by a combination of ultrasound standing waves and laminar flow

2pPAd Physical Acoustics: Cavitation Physics and Sonoluminescence III

2PPAD__1 Yuichiro Kato, Shigeo Hayashi, Kenji Tanaka, Hiroshi Kobayashi
Experimental investigation of dynamics of sonoluminescing bubbles

(no paper) On the light emission from collapsing laser-induced cavitation bubble

2PPAD__3 Olbert Lindau, Reinhard Geisler, Werner Lauterborn
Temperature dependency of luminescence from laser-produced cavitation bubbles

(no paper) [cancelled; discussion or break]

(no paper) [cancelled; discussion or break]

(no paper) Acoustic bubble traps

2PPAD__7 Isaac R. Shreiber
Peculiarities of cavitation in a water layer

2pPAe Physical Acoustics: Surface Roughness

- 2PPAE__1 Keith Attenborough**
Measurements and models of small-scale roughness effects at audio-frequencies in air
- (no paper) Experimental and modeling results for near grazing propagation over rough surfaces
- (no paper) The influence of millimeter-scale seafloor roughness on measured and predicted high-frequency acoustic backscattering strength
- (no paper) Acoustic backscatter from a sandy seafloor with anisotropic roughness
- (no paper) Acoustic remote sensing of seafloor roughness: Resolving ambiguous estimates of roughness spectrum parameters
- (no paper) Stochastic models for scattering by seafloor roughness
- (no paper) Characterization of small-scale seafloor roughness using close range digital photogrammetry
- 2PPAE__8 C. Nocke**
Measurement of the effective surface impedance in laboratory and in-situ
- (no paper) The influence of small scale seafloor surface morphology on acoustic backscattering

2pPPa Psychological and Physiological Acoustics and Noise: Application of Psychoacoustics in Rating Environmental Noise

- 2PPPA__1 Sonoko Kuwano, Seiichiro Namba, Mary Florentine, Zheng Da Rui, Hugo Fastl, August Schick, Reinhard Weber, Holger Höge**
A cross-cultural study of the factors of sound quality of environmental noise
- (no paper) Individual noise sensitivity and performance on psychoacoustic tasks
- (no paper) Loudness and annoyance of steady state and temporally varying noise
- (no paper) Response to air-cooling machinery noise: A preliminary study
- 2PPPA__5 Anna Preis, Fumiaki Satoh, Mutsumi Ishibashi, Hideki Tachibana**
Binaural loudness perception of time-varying environmental stimuli
- 2PPPA__6 Thomas Hempel**
Aspects of global assessment of loudness-equalized interior car sound in stationary driving conditions
- (no paper) Psychoacoustic evaluation of noise immissions
- (no paper) [cancelled; discussion or break]
- (no paper) Application of loudness quantities in a field study
- 2PPPA_10 Manfred T. Kalivoda**
Psychoacoustics and noise abatement in Austria - Some practical experiences
- 2PPPA_11 Carsten Reckhardt, Volker Mellert**
Proposal for the determination of equal-loudness level contours
- 2PPPA_12 J. Quehl, A. Schick, V. Mellert, B. Schulte-Fortkamp, H. Remmers**
Combined effects of helicopter and aircraft interior sound and vibration on passengers' well-being and comfort sensation

2pPPb Psychological and Physiological Acoustics: Physiological Acoustics

- 2PPPB__1 Eric Dudouet, Jacques Martin**
A new HRTF decomposition and algorithm for sound spatialisation
- 2PPPB__2 Stefan Stenfelt, Bo Håkansson, Anders Tjellström**
Vibration characteristics of bone conducted sound in vitro
- 2PPPB__3 Herbert Hudde, Andreas Engel**
Estimation of the sound pressure at eardrum
- (no paper) Three-dimensional measurements of a physical full-size model of the human middle ear
- 2PPPB__5 E.-J. Haberland, H. J. Neumann**
A general model of inner ear pressure responses including ultra-low frequencies
- (no paper) Cochlear fine structure in chinchillas
- 2PPPB__7 Torsten Marquardt, Johannes Hensel, Günther Scholz, Dieter Mrowinski**
Modulation of distortion product otoacoustic emissions (DPOAEs) by low-frequency masker tones in human ears
- 2PPPB__8 Günter Mauer, Wolfgang H. Döring**
Characteristics of amplitude modulation following responses in man
- (no paper) Excitation and inhibition in the dorsal nucleus of the lateral lemniscus influence binaural response properties of neurons in the rat's inferior colliculus
- (no paper) Sensitivity of auditory units in the frog's midbrain to amplitude decrements
- (no paper) Incremental responses in the auditory cortex and the auditory periphery
- (no paper) [cancelled; discussion or break]

2pSAa Structural Acoustics and Vibration: Structural Vibration, Radiation and Scattering I

- (no paper) On the acoustic Zeeman effect
- 2PSAA__2 Waldemar Maysenhölder, Bozica Horvatic, Klaus Naßhan**
HYPERION - A computational tool for the investigation of the sound transmission loss of
periodically structured plates
- 2PSAA__3 Olivier Chiello, Franck C. Sgard, Noureddine Atalla**
A modal approach to investigate the influence of viscoelastic boundary conditions on the
sound radiated from a cavity-backed plate
- 2PSAA__4 S. De Rosa, F. Franco, F. Fontana, R. Paino, A. Sollo**
Structural-acoustic optimisation of an unstiffened cylinder finite element model
- (no paper) Finite element and boundary elements for underground input to SEA calculations
- (no paper) Radiation of sound from a monopole source near a free-flooded cylindrical shell
- 2PSAA__7 G. Susanne van der Jagt, Heiko J. Martin**
Modelling of structure-borne sound transmission via pipe systems to building structures - A
framework
- (no paper) Estimating radiation modes for broadband measurement
- 2PSAA__9 Christophe Langrenne, Alexandre Garcia**
Integral formulations for the vibro-acoustic characterisation of a cello
- 2PSAA_10 Nicolas Touraine, Dominique Décultot, Gérard Maze, Aleksander Klauson, Jaan Metsaveer**
Effect of internal inhomogeneities on acoustic scattering from finite cylindrical shell bounded
by hemispherical endcaps
- (no paper) Designing structures for noise and vibration control with statistical energy analysis
- 2PSAA_12 W. P. Rdzanek, Jr., Z. Engel**
The acoustic radiation power of an annular plate for the form of vibrations (0,n)

2pSAb Structural Acoustics and Vibration: International Workshop on Active Noise and Vibration Control - - Active Noise Control in Ducts

- 2PSAB__1 René Boonen, Paul Sas**
Development an active silencer for internal combustion engines
- 2PSAB__2 D. Duhamel, P. Sargent**
Effects of geometric discontinuities and filter lengths on active control in ducts
- 2PSAB__3 J. Krüger, P. Leistner**
An active silencer for harsh environmental conditions
- 2PSAB__4 Holger Opfer, Dieter Guicking**
Active noise control of higher order modes in a rectangular duct using stabilized fast transversal filters
- (no paper) A hybrid active passive system for controlling locomotive exhaust noise
- 2PSAB__6 F. Carimantran, J. Tartarin**
Active control of pulsating flow in transitory condition
- 2PSAB__7 Roland Lippold, Joachim Scheuren**
Experimental investigations on active suppression of sound propagation in a fluid-filled pipe
- (no paper) [cancelled; discussion or break]

2pSCa Speech Communication: Data Based Speech Synthesis and Analysis

(no paper) VCV synthesis from muscle commands

2PSCA__2 Jianwu Dang, Kiyoshi Honda
Speech synthesis of VCV sequences using a physiological articulatory model

(no paper) The FUL speech recognition system

2PSCA__4 Karl Schnell, Arild Lacroix
Parameter estimation from speech signals of tube models

(no paper) A preliminary study of speech transformation using empirically defined articulatory modes

2PSCA__6 Dekun Yang, Georg F. Meyer, William A. Ainsworth
A neural model for auditory scene analysis

2PSCA__7 Hans Werner Strube, Hans Wilmers
Noise reduction for speech signals by operations on the modulation frequency spectrum

2PSCA__8 Dekun Yang, William A. Ainsworth, Georg F. Meyer
Resolution capability of reassigned Fourier spectrum

2PSCA__9 Charles R. Day, William A. Ainsworth, Georg F. Meyer
Improved spectral resolution via the reassigned Fourier transform

(no paper) Intelligibility enhancement of synthesis speech heard via telephone in a noisy environment

2PSCA_11 Andreas Mengel, Ulrich Heid
Query language for access to speech corpora

2PSCA_12 Frode Holm, Kazue Hata
Prosody templates in word-level prosody

2pSCb Speech Communication: Cross Language and L2 Processing II (Poster Session)

- 2PSCB__1 William L. Martens, Stephen Lambacher**
The influence of vowel context on the Japanese listener's identification of English voiceless fricatives (Poster)
- (no paper) Can English listeners learning Japanese as a second language employ a mora-based segmentation procedure? (Poster)
- 2PSCB__3 Matthias Jilka**
Intonational foreign accent in the speech of American speakers of German (Poster)
- 2PSCB__4 Marielle Bruyninckx, Bernard Harmegnies**
A study of the language dominance effects on bilinguals' voice quality (Poster)
- (no paper) Effects of L1 phonotactic constraints on L2 speech perception and production (Poster)
- 2PSCB__6 Areti Okalidou, Laura L. Koenig**
Patterns of vowel-to-vowel coarticulation in Greek and English (Poster)
- 2PSCB__7 Yukari Hirata**
Production of Japanese durational contrasts by native and nonnative speakers (Poster)
- (no paper) Acoustic-phonetic analysis of the acquisition of American English tense-lax contrasts by native speakers of Chinese (Poster)
- 2PSCB__9 Dawn M. Behne, Peter E. Czigler, Kirk P. H. Sullivan**
Perceived vowel quantity in Swedish: Native and British listeners (Poster)
- (no paper) Dynamic information in French vowel identification by native and non-native listeners (Poster)
- (no paper) Training American listeners to perceive Mandarin tones: Transfer to production (Poster)
- (no paper) Point vowels in Japanese mothers' speech to infants and adults (Poster)
- 2PSCB_13 Kimiko Tsukada**
Detection of foreign accent by L2 English learners (Poster)
- (no paper) Neurophysiologic correlates of cross-language perception of phonetic categories (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) Recognition of Portuguese vowels by Galician-speaking and Spanish-speaking listeners (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) Does interspeaker variation in habitual speaking rate predict the size of the acoustic vowel space? (Poster)
- (no paper) Russian vowels in mothers speech to infants and adults (Poster)
- 2PSCB_20 Z. S. Bond, Verna Stockmal**
Selecting samples of spoken Korean from rhythmic and regional competitors (Poster)
- 2PSCB_21 Anja K. Steinlen, Ocke-Schwen Bohn**
Acoustic studies comparing Danish vowels, British English vowels and Danish-accented British English vowels (Poster)

2pSPa Signal Processing in Acoustics and Engineering Acoustics: Smart Microphones and Audio for Teleconferencing

(no paper) Steerable adaptive first and second-order differential microphones

2PSPA__2 Walter Kellermann
Integrating acoustic echo cancellation with adaptive beamforming microphone arrays

2PSPA__3 Jens Meyer
Self-calibrating microphone array

2PSPA__4 Andrew Rimell
Spatial audio for telepresence

2PSPA__5 Shigeaki Aoki, Manabu Okamoto
Audio teleconferencing system with sound localization effect

(no paper) Robust and adaptive spatialized audio for desktop conferencing

2PSPA__7 Michael Cohen
Chat space models: Idioms for uni-, narrow- and multicasting

(no paper) Spatial voice activity detection using a microphone array noise canceller

2PSPA__9 M. Kazama, M. Tohyama, A. Morita
Speech reconstruction from a received noisy signal

2PSPA_10 Peter Mapp, Henry Azima
Improvements in teleconferencing sound quality and gain before feedback through the use of DML technology

2PSPA_11 Sławomir K. Zieliński, Andrzej Czyżewski
A method for echo cancellation in audio signals using the genetic algorithm

2PSPA_12 A. Martin, M. Ruiz, J. M. López, M. Recuero
A one-third octave real time VXi analyzer

2pSPb Signal Processing in Acoustics: Signal Processing (Poster Session)

- (no paper) Improving the performance of ultrasonic range meters (Poster)
- (no paper) Hands-free teleconferencing unit using auxiliary loudspeaker and duo-filter echo canceller DSP (Poster)
- (no paper) Approximation of dummy-head recording technique by a multi-microphone arrangement (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) [cancelled] (Poster)

2PSPB__7 Charalambos A. Dimoulas, George V. Papanikolaou, George M. Kalliris, Costas Pasiadis
Computer aided systems for prolonged recording and analysis of human bowel sounds
(Poster)

2pUWa Underwater Acoustics, Acoustical Oceanography, and Physical Acoustics: Acoustics and the Comprehensive Test Ban Treaty II

- (no paper) Overview of the infrasound monitoring system for the Comprehensive Nuclear-Test-Ban Treaty
- 2PUWA__2** **Peter Wille, Lothar Ginzkey**
An autonomous hydroacoustic monitoring station in support of the fixed CTBT network
- (no paper) Adaptation of underwater acoustic propagation models to infrasonic atmospheric propagation
- (no paper) Naturally occurring sources of infrasound
- (no paper) Interpretation of the different infrasounds detected in France during one year in a four components prototype CTBT station
- (no paper) Infrasound source location at the prototype international data center
- (no paper) Temporal variability in the propagation of infrasonic waves over Hawaii and Alaska
- (no paper) An optical fiber infrasound sensor
- (no paper) One year analysis of systematic detection and location of infrasounds in a prototype CTBT station
- (no paper) High resolution measurements of the angle of arrival of infrasonic signals in the range 0.5-5 Hz
- 2PUWA_11** **Michael A.H. Hedlin, Frank L. Vernon, Jon Berger, John A. Orcutt**
Surveying infrasonic noise on oceanic islands (Poster)
- 2PUWA_12** **Sergey N. Kulichkov**
On temporal and spatial variability of infrasonic signals at the long distances from surface explosions (Poster)

2pUWb Underwater Acoustics and Signal Processing in Acoustics: Localization, Estimation and Detection in Underwater Acoustics

- (no paper) Cell noise at the output of a MFP beamformers in shallow waters
- (no paper) Tracking results from the three dimensional full field processing array and the Santa Barbara channel experiment
- (no paper) Comparison of mode-shapes-only source depth estimation with conventional matched field source localization and the impact of array tilt on these processes
- (no paper) Highly resolved detection in a waveguide with the D.O.R.T. method
- (no paper) A high-resolution algorithm for wave number inversion using a holographic technique
- (no paper) Beamforming performance of a V-shaped array of sea-bed geophone sensors
- (no paper) Transient tonal and background noise filtering with wavelet and cosine transforms
- (no paper) Objective function particularity for shallow water waveguide parameters estimation procedure
- (no paper) Matched-field depth discrimination with active sonar (Poster)

3a - WEDNESDAY MORNING, 17 MARCH 1999

3aABa Animal Bioacoustics: Evolution in Hearing and Sound Production I

- | | |
|------------|--|
| (no paper) | The evolution of tympanate hearing from proprioceptors in ancient grasshoppers |
| (no paper) | [cancelled; discussion or break] |
| (no paper) | Evolution of vocalization behavior in a Madagascar amphibian |
| (no paper) | Moths ears evolved first for bat defense and later for communication |
| (no paper) | Bats, insects and the evolution of hearing |

3aABb Animal Bioacoustics: Evolution in Hearing and Sound Production II

(no paper) Temporal resolution in birds and the perception of complex sounds

3AABB__2 Wolfgang Plassmann
Audiogram, morphological constraints, environmental acoustics, and adaptation

(no paper) Acoustic fatheads: Parallel evolution of underwater sound reception mechanisms in dolphins, turtles and sea birds

(no paper) The upper frequency range in pigeon hearing: Response properties in auditory nerve and cochlear nucleus - is tuning different in birds?

(no paper) Adaptations for hearing in background noise

3aAOa Acoustical Oceanography: Innovations in Fish and Plankton Acoustics III (Poster Session)

- | | |
|-----------------|---|
| (no paper) | [cancelled] (Poster) |
| (no paper) | Modelling the target strength of <i>Meganyctiphanes norvegica</i> (Poster) |
| (no paper) | Target strength spectra of swimbladdered fish (Poster) |
| (no paper) | [cancelled] (Poster) |
| 3AAOA__5 | Marek Moszyński, Andrzej Stepnowski
Wavelet decompositions versus singular value decomposition (SVD) in fish target strength estimation (Poster) |
| (no paper) | Gas cavities in phytoplankton (Poster) |
| (no paper) | Modeling considerations for acoustic scattering by fluid-like elongated zooplankton: Model intercomparisons and recommendations for euphausiids and copepods (Poster) |
| (no paper) | Inference of material properties of zooplankton from acoustic and conductivity measurements (Poster) |
| (no paper) | Digital transducer novel technology for acoustical oceanography and fisheries research (Poster) |
| (no paper) | Spheres for calibrating high-frequency broadband echo sounders (Poster) |
| (no paper) | [cancelled] (Poster) |
| (no paper) | Mechanoreception for food fall detection in deep sea scavengers (Poster) |
| (no paper) | Echogram noise quantification with application to herring observations (Poster) |
| (no paper) | [cancelled] (Poster) |

3aAOB Acoustical Oceanography and Underwater Acoustics: Acoustic Tomography and Thermometry I

3AAOB__1 Fabienne Gaillard, Yann Stéphan Meddies and front detection by acoustic tomography

- (no paper) Resonant diurnal internal tides in the North Atlantic
- (no paper) Acoustic monitoring of the transport and temperature variability in the Strait of Gibraltar
- (no paper) AMOC: Acoustic monitoring of the ocean climate of the Arctic

3AAOB__5 Konstantin A. Naugolnykh, Ola M. Johannessen, Igor B. Esipov, Oleg B. Ovchinnikov, Yury I. Tuzhilkin Sound signal scintillation approach to acoustic monitoring of heat and mass transport through the Fram Strait

- (no paper) AMOC: Listen to the climate change?
- (no paper) Acoustic studies of the large scale ocean circulation
- (no paper) ATOC, or Candide: Towards depth-averaged temperature maps of the North Pacific Ocean
- (no paper) Measurements of multi-megameter travel-time bias and coherence
- (no paper) Reciprocal tomography between ATOC transmitters
- (no paper) Modal structure of low-frequency, broadband receptions at megameter ranges
- (no paper) On the existence of nearly stable dynamics in long-range sound propagation through oceanic mesoscale structure

3aBB Biomedical Ultrasound/Bioresponse to Vibration: HIFU and Thermal Effects

(no paper) Numerical simulation of the enhanced heat production in tissue due to the nonlinear character of high intensity focused ultrasound

(no paper) Hyperthermia therapy using phase conjugation

(no paper) [cancelled; discussion or break]

3ABB__4 Seong-Wook Song, Min-Joo Choi, Jun-Seok Lim, Koeng-Mo Sung Noninvasive estimation of tissue temperature via frequency shift using narrow band transducer

(no paper) Thermal effects of ultrasound enhancer for transdermal insulin delivery

(no paper) Sound scattering and local heating from pulse-driven microbubbles

(no paper) Numerical modeling of high-intensity focused ultrasound for hemostatic applications

(no paper) Effect of tone burst ultrasound in combination with PPAA (poly-propyl acrylic acid) on hemolysis of erythrocytes

(no paper) The effects of temperature on the characteristics of the focal region in high intensity focused ultrasound

3ABB__10 Kristian Jambrošić, Bojan Ivančević, Igor Zorić High intensity ultrasonic spectra in water and brain tissue

3aEA Engineering Acoustics and Underwater Acoustics: Recent Advances in Underwater Transducers I

- (no paper) A new deep-submergence broad-band multiport underwater sound transducer
- (no paper) 1-3 piezocomposite underwater transducer
- (no paper) Biased lead zirconate titanate as a high power transduction material
- (no paper) Steered beams using a spatially phased array
- (no paper) Recent low-frequency sonar transducers and arrays

3AEA__6 Houqing Zhu Recent developments of underwater acoustic transducers in China

- (no paper) Development of a compact suspension systems for a neutrally buoyant underwater acoustic intensity probe
- (no paper) Comparative study: Flow-induced noise on underwater acoustic pressure, particle velocity, and intensity sensors
- (no paper) Bias error due to flow-induced noise on a velocity gradient underwater acoustic intensity sensor
- (no paper) Development and testing of an ultrasonic PMN transducer
- (no paper) Thermal analysis of high drive transducer elements
- (no paper) The calibration of extended stationary low-frequency hydroacoustic antennae in the real conditions

3aMU **Musical Acoustics:** **Musical Instruments and Structural Acoustics I: Experimental Studies, Theoretical Models and Numerical Analysis**

(no paper) Experimental and theoretical studies of the modes of stringed instruments and their relevance for quality control of instrument manufacture

3AMU__2 **María Jesús Elejabarrieta, Amaya Ezcurra, Carlos Santamaria, José Bretos**
Dinamical behaviour evolution of the guitar harmonic plate in the successive construction phases

(no paper) Numerical simulation of timpani

(no paper) Comparison between modal analysis and finite element modeling of a marimba bar

(no paper) Investigating the effect of different strutting arrangements on the modes of a guitar soundboard

3AMU__6 **Anna Runnemalm, Nils-Erik Molin**
Air cavity modes in sound boxes recorded by TV holography

(no paper) On the function of the violin bridge

3AMU__8 **Uwe J. Hansen, Thomas D. Rossing**
Normal modes of vibration in a violin

(no paper) Deconstructing the violin-the road from B to A

(no paper) Finite element analysis of vibrating trombone bell

(no paper) Simulation and measurement of wall vibrations of a flue organ pipe

3AMU__12 **Lars Henrik Morset**
An investigation of vibrational and acoustical properties of the violin using MLS and TV holography

3aNSa Noise: Noise at the Workplace II

- (no paper) Characteristics of the noise found in day-care centers
- 3ANSA__2 Amando García, Jose V. Garrigues, Ana M. García
Occupational noise in Spanish textile industries**
- 3ANSA__3 Karl F. Ross, et al.
What is and should be in the area of noise-protection: Make progress a catalog on noise reduction**
- 3ANSA__4 Jerzy Wiciak, Marek Iwaniec, Ryszard Panuszka
Ladle crane noise**
- (no paper) [cancelled] (Poster)
- 3ANSA__6 Hrvoje Domitrović, Ivana Bagić, Bojan Ivančević
Noise levels in dental practice (Poster)**
- 3ANSA__7 Richard Barham
The role of measurement standards in acoustics (Poster)**

3aNSb Noise: Hearing Protector Measurements, Effects, Design, and Performance

- (no paper) The results of a unique Nordic HAKK interlaboratory REAT comparison
- 3ANSB__2 Elliott H. Berger, Ronald W. Kieper, Donald L. Peyton**
Experience with a new ANSI standard for measuring the REAT of hearing protectors (S12.6-1997)
- (no paper) Alternative field methods of measuring hearing protector performance
- (no paper) The attenuation of combinations of ear muffs and ear plugs
- (no paper) Artificial heads vs. miniature microphones for measuring active noise reduction hearing protector performance
- 3ANSB__6 Pascal J.F. Hamery, Armand L. Dancer**
Amplitude sensitive attenuating earplugs
- (no paper) Implementation of adaptive digital ANR in hearing protectors
- 3ANSB__8 Martin Liedtke**
Use of Zwicker method to predict signal audibility in noise with hearing protection devices
- 3ANSB__9 M.L. Barrenäs**
Hearing protection in everyday practice - the gap between expert knowledge and the beliefs of the workers
- (no paper) Acoustic modeling and measurements of hearing protectors for impulsive noise
- (no paper) A rating system in search of hearing protectors
- (no paper) Four protectors in search of a rating system (Poster)
- 3ANSB_13 Paulo Henrique Trombetta Zannin**
Effects of design parameters - cup, cushion, band force, foam lining - on the attenuation of earmuffs (Poster)

3aNSc Noise and Physical Acoustics: Experience with Noise Prediction II

(no paper) Experiences with high speed algorithms for full field predictions of long range sound propagation in the atmosphere

3ANSC__2 G. Kerry, M. West
The development of prediction models to control noise levels around UK firing ranges

(no paper) Measurements and computations of shooting noise: Part 1: Muzzle noise

(no paper) Measurements and computations of shooting noise. Part 2: Bullet noise

3ANSC__5 Reinhard Blumrich, Jürgen Altmann
Calculation of aircraft sound propagation on airports via determination of the ground impedance

(no paper) Forecasts of sound propagation by a mesoscale atmospheric model

3ANSC__7 Eric Premat, Yannick Gabillet
Meteo-BEM: A new hybrid approach to predict noise barriers efficiency with meteorological effects, theory and comparison with experimental results

3ANSC__8 George A. Luz
Assessing changes in the noise environment from military training ranges: A case study in forensic acoustics

(no paper) Moving point source - A simple model for predicting statistical sound levels in the neighborhood

3ANSC_10 R. Bütikofer, G. Thomann, S. Plüss
Track dispersion in aircraft noise modeling

3ANSC_11 Norbert Kalus
Computational methods for designing a silator - a low frequency resonator element

3aNSd Noise: Aerodynamic Noise of Vehicles

- 3ANSd__1 Hajime Fujita, Akio Sagawa**
Characteristics of the Aeolian tone generated from cylinders in conjunction with pantograph noise control
- (no paper) Reducing the sound emission of TRANSRAPID by decreasing the aerodynamic sound sources
- 3ANSd__3 Mikio Yamazaki, Yasuyuki Goto, Masaaki Miyamoto, Makoto Ueno, Yasuo Zenda, Masanobu Iida**
Aerodynamic noise from vehicles on the Yamanashi Maglev Test Line
- (no paper) Sound radiation from flow-excited elastically supported rectangular panels
- 3ANSd__5 Th. Lölgen**
Wind tunnel noise measurements on full-scale pantograph models
- 3ANSd__6 Marc C. Jacob, Alain Louisot, Daniel Juvé, Sylvie Guerrand**
Measurements of sound radiated by turbulent wall jets past singularities
- 3ANSd__7 W. F. King III, B. Barsikow, M. Klemenz**
Boundary-layer noise from high-speed vehicles: Theory and measurement
- 3ANSd__8 Antonio Reig, José L. Manglano, Esteban Gaja, Salvador Sancho**
The relationship between the sound power level and different parameters of a single vehicle noise
- (no paper) Experimental investigations of surface pressure fluctuations related to car interior noise

3aNSE Noise: **IEC61672 - The New International Standard for Sound Level Meters**

(no paper)	Introductory remarks
3ANSE__2	William V. Richings Scope of the new standard
3ANSE__3	Gaston Banget-Mossaz, Jean-Noël Durocher Free-field response of sound level meters
3ANSE__4	Peter Hedegaard Frequency weightings and responses
(no paper)	Response to steady signals
(no paper)	Response to non-steady signals
3ANSE__7	Hiroaki Takinami Peak C-weighted sound pressure level
3ANSE__8	Richard Tyler Environmental considerations for sound level meters according to IEC 61672
3ANSE__9	Susan P. Dowson Uncertainties of measurement and IEC 61672
(no paper)	Tolerances of "A" weighting at extreme frequencies
(no paper)	Summary

3aNSf Noise: Turbomachinery Noise

3ANSF__1 Michel Roger
On the noise from turbomachinery and ducted fans - A review of prediction methods

(no paper) Predicting the effects of blade geometry on rotor-stator interaction noise

(no paper) Numerical analysis and active control of wake/blade-row interaction noise

(no paper) An analytical model for upstream and downstream sound power from swept blade rows

3ANSF__5 Yadong Lu, Jing Tian
A cut-off attenuator with perforated plates in a centrifugal fan and it's aeroacoustic experiments

3ANSF__6 M. J. Greaves, B. A. T. Petersson
Performance of acoustic liners for jet engine intake ducts

(no paper) Acoustical forced oscillation diagnosis method of cracks for turbomachinery

3aPAa Physical Acoustics: Duct Acoustics I

(no paper) Energy conservation time reversal invariance and reciprocity

(no paper) Acoustic energy estimates in inhomogeneous moving media

3APAA__3 Walter Eversman
A reverse flow theorem and acoustic reciprocity in compressible potential flows

(no paper) Acoustics of ducted sources in motion

3APAA__5 R. Kirby, A. Cummings
The effects of flanking transmission on sound attenuation in lined air-conditioning ducts

(no paper) Sound transmission in a slowly varying flow duct with lossless liner

(no paper) Scattering at localized absorbers in a lined duct wall

(no paper) Nonlinear standing waves in the two tube structure

(no paper) Acoustic pulse reflectometry for the measurement of tubular structures

3APAA_10 Fredrik Albertson
Negative resistances in nonlinear lumped acoustic systems and IC-engine source data

(no paper) Sound speed determination in a fluid-filled elastic waveguide

3APAA_12 Rudolf N. Starobinski
Sound propagation in a conical duct with flow

3APAA_13 Fathy B. Shenoda, A. Zaki, Albeer F. B. Shenoda
A new acoustic conductor (Poster)

3aPAb Physical Acoustics: Nonlinear Motion of Bubbles and Drops II

- 3APAB__1 T.G. Leighton, B. T. Cox, P. R. Birkin, T. Bayliss**
The Rayleigh-like collapse of a conical bubble: Measurements of meniscus, liquid pressure, and electrochemistry
- (no paper) Probing and stabilization of interfaces with acoustic radiation pressure: Application to bubbles and capillary bridges
- (no paper) Acoustic radiation forces on bubbles in real fluids
- 3APAB__4 J. -L. Laborde**
Cavitation bubbles' motions under ultrasound
- (no paper) [cancelled; discussion or break]
- (no paper) Control of nonlinear bubble dynamics
- (no paper) Effects of shape oscillations on bubble dynamics and coalescence
- (no paper) Bubble response to the amplitude modulation signal near the threshold of dynamic stability
- (no paper) An acoustic levitation technique for measuring the rheology of foam near the order-disorder transition

3aPac Physical Acoustics: Periodic and Layered Media

- (no paper) Time-domain Floquet-wave Green's function for an infinite sequentially excited periodic line array of point radiators
- 3APAC__2 A. Alippi, M. Germano, A. Bettucci**
Propagation features of evanescent acoustic waves
- (no paper) [cancelled; discussion or break]
- (no paper) [cancelled; discussion or break]
- 3APAC__5 Christopher Carr, Roger Yu**
Sonic band structure and localized modes in a density-modulated system: An experimental and theoretical study
- 3APAC__6 Catherine Potel, Stefaan Devolder, Jean-François de Belleval, Oswald Leroy, Martine Wevers**
Multilayered Rayleigh waves in anisotropic periodically multilayered media: Comparison between theory and experiments using acousto-optic technique
- 3APAC__7 Philippe Gagniol, Catherine Potel, Jean-François de Belleval**
Modal waves in periodically multilayered fluid structures
- 3APAC__8 Aly H. A. Moustafa**
A theoretical investigation of sound transmission through a layered periodic structure in water
- 3APAC__9 Bruno Rogé, Patrick Lancelier, Jean-François de Belleval**
Modeling of inhomogeneous monochromatic plane waves at the interface between two arbitrary homogeneous anisotropic absorbent media
- 3APAC_10 S. Pogorzelski, J. Szurkowski, A. Śliwiński**
Micellar structures in layered oil/water surface systems studied with photoacoustics spectroscopy
- (no paper) [cancelled; discussion or break]
- 3APAC_12 Daumantas Čiplys, Romualdas Rimeika**
Surface acoustic waves in proton-exchanged lithium niobate

3aPPa Psychological and Physiological Acoustics and Speech Communication: Localization and Speech Perception in Realistic Acoustic Environments

- (no paper) Localization of sound in reverberant spaces
- (no paper) Localization of distracted speech and noise in reverberant and anechoic environments
- (no paper) The precedence effect: Fusion and localization dominance
- (no paper) Physiological studies and neural mechanisms of echo suppression in the inferior colliculus of the cat
- (no paper) The cocktail party effect: Research and applications
- (no paper) Binaural hearing by listeners with hearing impairments
- (no paper) The "cocktail-party effect" viewed through the lens of psychophysics
- (no paper) Application of localization models to noise suppression in hearing aids

3APPA__9 Thomas Hempel, Sebastian Möller, Ute Jekosch, Sabine Meunier, Xavier Regal Speech perception in telephone situations under ambient noise conditions

- (no paper) Effects of aging on sound localization and speech understanding in realistic listening situations
- (no paper) Localization of distracted sound sources: Determining the role of binaural cues using unilaterally attenuated and interaurally uncorrelated signals
- (no paper) Localization ability in the horizontal plane in adverse auditory environments

3aPPb Psychological and Physiological Acoustics: Spectral Parameters (Poster Session)

- (no paper) The lower limit of melodic pitch with filtered harmonic complexes (Poster)
- (no paper) Further examination of the relationship between overshoot and filtering (Poster)
- 3APPB__3 Takuro Kayahara, Takao Sato**
Frequency discrimination following linear frequency glide (Poster)
- 3APPB__4 Prudence Allen, Louise Korpela**
Notched-noise measures of frequency resolution in children: What acoustic cues are available at threshold levels? (Poster)
- 3APPB__5 Roel Delahaye, Deborah A. Fantini, Ray Meddis**
Effects of practice on performance for masked signal detection (Poster)
- 3APPB__6 Jesko L. Verhey, Torsten Dau**
Simulations of spectral masking and the asymmetry of masking (Poster)
- (no paper) Spectral integration of auditory temporal information (Poster)
- (no paper) Direction discrimination for formant-frequency glides and modulation (Poster)
- (no paper) Estimating the phase characteristic of the auditory system from masking by harmonic complexes (Poster)
- 3APPB_10 Ulrich Haupt, Reinhard Weber**
Unexpected dependency of psychoacoustical sharpness on the bandwidth of noise (Poster)
- (no paper) Gap detection within and across perceptual channels (Poster)
- 3APPB_12 Jürgen Altmann**
Acoustic weapons? Effects of very high sound levels (Poster)

3aSA Structural Acoustics and Vibration: International Workshop on Active Noise and Vibration Control - - Active Control of Sound Radiation and Transmission

- 3ASA__1 S.J. Pietrzko**
Vibrations of double wall structures around mass-air-mass resonance
- 3ASA__2 M. J. Brennan, S. M. Kim**
Active control of random sound transmission in a structural-acoustic system
- (no paper) Near field control of complex sources
- (no paper) A comparison of active control strategies for the reduction of sound transmission through double panels
- (no paper) Intensity error sensing in the active control of sound
- (no paper) Simulations of the feedback control of sound transmission through a plate using measured data
- 3ASA__7 Kris Henrioulle, Paul Sas**
Experiments on the active increase of sound transmission loss using distributed actuators
- (no paper) An experimental investigation of a novel active segmented partition for sound transmission control
- 3ASA__9 María Cuesta, Pedro Cobo**
A passive/active hybrid system for control of the noise radiated by a small enclosure

3aSCa Speech Communication: Psychoacoustic Methods in Speech Recognition I

- 3ASCA__1 Hiroya Fujisaki**
What can we learn from human processes of spoken language comprehension?
- 3ASCA__2 Jürgen Tchorz, Birger Kollmeier**
A psychoacoustical model of the auditory periphery as front end for ASR
- (no paper) discussion
- 3ASCA__3 Jürgen Tchorz, Birger Kollmeier**
Automatic classification of the acoustical situation using amplitude modulation spectrograms
- 3ASCA__4 Klaus Kasper, Herbert Reininger**
Evaluation of PEMO in robust speech recognition
- (no paper) discussion
- 3ASCA__5 Steven Greenberg, Takayuki Arai, Brian Kingsbury, Nelson Morgan, Michael Shire, Rosaria Silipo, Su-Lin Wu**
Syllable-based speech recognition using auditory-like features
- (no paper) The profile of interaural decorrelation across frequency: A Binaural representation of pitch and timbre
- (no paper) discussion
- (no paper) Recognition of speech from temporal patterns
- (no paper) Some musings on systematic variability and speech recognition
- (no paper) discussion

3aSCb Speech Communication: Fluid Dynamic Models for Speech Production

- (no paper) Fluid dynamic effects in speech
- (no paper) Turbulent glottal flow during phonation
- (no paper) A study of the supraglottal flow behavior during phonation
- (no paper) Models of frication: Advances and limitations
- (no paper) Computational aeroacoustics of subsonic jets for application to speech production
- (no paper) Synthesis of unvoiced speech sounds using an aeroacoustic source model
- (no paper) discussion
- (no paper) A computational study of glottal obliquity
- (no paper) Estimating the non-acoustic fluctuating velocity amplitude from Cranen and Boves' vowel production data
- (no paper) A model of vocal-tract acoustics and aeroacoustics validated by flow experiments

3ASCB_10 Eugen Gallasch
Vocal microtremor assessed by complex demodulation

3ASCB_11 Jorge C. Lucero
Bifurcations at voice onset-offset

3aSP Signal Processing in Acoustics and Engineering Acoustics: Binaural Technology I

(no paper) Sound localization with unilaterally degraded spectral cues

3ASP__2 Roland Sottek, Klaus Genuit
Physical modeling of individual head-related transfer functions

(no paper) The relevance of the shoulder bounce to HRTFs considering head movements

(no paper) Determination of optimal HRTFs for binaural synthesis

(no paper) The effects of source characteristics on the auditory localization of nearby sources

(no paper) Role of two ears in upper hemisphere localization

(no paper) Generation of binaural information using cross ambiguity functions

(no paper) Audition and the sense of presence in virtual environments

(no paper) A series of experiments exploring the spatial separation of multiple talkers with 3-D audio technology

3ASP__10 Hirofumi Yanagawa, Takatoshi Okuno
Sound-image broadening by a single echo and its relation to the transient interaural cross-correlation function

(no paper) Applications of virtual auditory space in psychoacoustics and neurophysiology

3ASP__12 K. Genuit, J. Poggenburg
The importance of binaural auralization for automotive industry

3aUWa Underwater Acoustics: Scattering from Finite Structures Near Boundaries

- 3AUWA__1 J. A. Fawcett**
Modeling scattering by objects near an interface
- (no paper) Measurement of 3-D scattering from buried targets in very shallow water
- 3AUWA__3 Otto von Estorff, Wulf-Christof von Karstedt, Olgierd Zaleski**
Acoustic investigation of objects in shallow water using FEM and BEM
- (no paper) A comparison of benchmark acoustic scattering solutions with tank experiments on buried and partially buried spheres
- (no paper) Modeling scattering from objects near boundaries using infinite elements
- (no paper) Measurements of acoustic scattering from partially and completely buried thin-shelled targets
- (no paper) Target classification in shallow waters by time-frequency-filtering
- (no paper) Numerical simulation of transient scattering from bodies and shells in a layered fluid-solid medium
- 3AUWA__9 Rafael Carbó, Adriana C. Molero**
Sea experimental detection of an array of hollow spheres
- (no paper) Sound diffraction by an underwater topographical ridge
- 3AUWA_11 H. Khelladi, H. Djelouah**
Analysis of boundaries effects in the evaluation of transient ultrasonic fields scattered by a rigid reflector (Poster)
- (no paper) [cancelled] (Poster)

3aUWb Underwater Acoustics and Acoustical Oceanography: Ultra Low Frequency (<1 kHz) Ocean Acoustics

- (no paper) A review of ocean acoustics in the band 0.001-1.0 Hz
- (no paper) Ocean bottom seismic noise (1-10,000s)
- (no paper) Lessons from the ocean seismic network pilot experiment
- (no paper) Evaluation of teleseismic waveforms and detection thresholds from the OSN pilot experiment
- 3AUWB__5 Hans W. Gerber, Francesco Gasparoni, Paolo Favali, Giuseppe Smriglio, Jean Marvaldi, Jean-Michel Coudeville, Claude Millot
GEOSTAR benthic observatory: Technological results**
- (no paper) Low-frequency dispersion computations by compound-matric propagation
- (no paper) [cancelled; discussion or break]
- (no paper) Validation and application of an effective medium theory to heterogeneous anisotropic structures

3aUWc Underwater Acoustics: Transducers Arrays and Instrumentation (Poster Session)

- (no paper) Optoacoustic technique for remote control of underwater oceanographic instrumentation (Poster)
- (no paper) Laser optoacoustic diagnostics of sea ice (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) [cancelled] (Poster)
- 3AUWC__5 Joon-il Song, Byung-Doo Jun, Jun-seok Lim, Koeng-Mo Sung**
A linearly constrained design method for minimizing the interference effect in linear and planar array (Poster)
- (no paper) New sonar technologies using lower sound pressure levels (Poster)

3p - WEDNESDAY AFTERNOON, 17 MARCH 1999

3pAAa Architectural Acoustics and Signal Processing in Acoustics: Verification of Auralization and Modeling Programs I

- 3PAAA__1** **Bengt-Inge Dalenbäck**
Verification of prediction based on randomized tail-corrected cone-tracing and array modeling
- (no paper) Report on the second International Round Robin on Room Acoustical Computer Simulation
- 3PAAA__3** **Jens Holger Rindel, Hiroyoshi Shiokawa, Claus Lynge Christensen, Anders Christian Gade**
Comparisons between computer simulations of room acoustical parameters and those measured in concert halls
- 3PAAA__4** **Wolfgang Ahnert, Stefan Feistel**
Real time auralization with EASE 3.0
- (no paper) [cancelled; discussion or break]
- (no paper) A computer auralization and "real world" comparison using the computer programs EASE and EARS

3pAAb Architectural Acoustics: Sound Insulation and Subjective Annoyance

- (no paper) On the utility of extending the low frequency range of standards for sound isolation in buildings
- (no paper) On subjective impact sound insulation classes
- (no paper) Group subjective ratings of airborne sound insulation
- (no paper) Considerations about the influence of traffic noise in the design of new hospitals

3PAAB__5 Wolfgang Teuber, Ernst-Joachim Voelker
Vibrations caused by construction work - measurements & surveillance

3pAO Acoustical Oceanography and Underwater Acoustics: Acoustic Tomography and Thermometry II

(no paper) Shallow-water tomography: Acoustic maps of the New England shelfbreak front

(no paper) Broad band geo-acoustic inversion in shallow water

(no paper) Results for tomographic geoacoustic inversion on simulated multi-array data

3PAO__4 D. Mauuary, B. Faure
The acoustic data preprocessing in the TOMOLAB/OCTOPUS project

(no paper) Matched-peak tomography

3PAO__6 M. I. Taroudakis, M. G. Markaki
**On the simultaneous estimation of current and sound velocity structure in the ocean, using
matched-field processing**

(no paper) The experimental demonstration of selective mode excitation in a shallow water environment
(Poster)

(no paper) Model of acoustic monitoring of heat and mass transport in the Fram Strait (Poster)

(no paper) Internal wave inversions for 1 year of Pioneer Hawaii ATOC transmission (Poster)

(no paper) AMOC: Preliminary results (Poster)

3PAO__11 Alexander Ya. Kalyuzhny, Leonid G. Krasny
Method of the main informative components for acoustic tomography (Poster)

(no paper) An ocean acoustic tomography experiment in the Central Labrador Sea-First Results (Poster)

3pEA Engineering Acoustics and Underwater Acoustics: Recent Advances in Underwater Transducers II

- (no paper) Application of the Tonpilz design for optimizing parameters of rod transducers
- (no paper) Large aperture 1-3 composite longitudinal resonator (tonpilz) transducer
- (no paper) The development of a doubly curved acoustic array using injection molded 1-3 piezocomposite
- (no paper) Ultra-wide bandwidth backscattering measurements using a transparent flat PVDF sheet source
- (no paper) Mechanical properties of lead magnesium niobate/lead titanate ceramics
- (no paper) Evidence of non-linear losses in electrostrictive materials

3pED

Education in Acoustics:

Take Fives--Sharing Ideas for Teaching Acoustics

5 minute demonstrations on new laboratory experiments, videos, sound examples, ideas for teaching acoustics etc.

No papers could be submitted for this session.

3pMU Musical Acoustics: Musical Instruments and Structural Acoustics II: Piano and Related Instruments

- 3PMU__1 Anatoli Stulov**
Method of piano hammer parameters determination
- 3PMU__2 Hideyuki Tanaka, Keinosuke Nagai, Koichi Mizutani**
Experimental analysis of two-dimensional vibration of piano-string measured with optical device
- (no paper) Damping of string motion, a significant parameter for the sound quality
- (no paper) The influence of inharmonicity on piano tuning
- (no paper) Psychoacoustic model for calculating the sound quality of piano tones
- 3PMU__6 Edgar Lieber**
Stiffness of strings; significance in musical acoustics

3pNSa Noise: Tribute to Henning E. von Gierke

- (no paper) Henning E. von Gierke: Mentor, colleague, and public policy leader
- (no paper) Research pioneer in biomechanics, Henning E. von Gierke
- (no paper) The major historical events in the relating noise induced hearing loss to noise exposure
- (no paper) 50-year legacy of Henning E. von Gierke's scientific and engineering excellence

3pNSb Noise: Rotor Noise from Helicopters and Propellers

(no paper) European helicopter rotor noise research - Highlights of recent projects

3PNSB__2 Jean Prieur
Analysis and capability of a non-compact integration method for rotor noise prediction

(no paper) Analysis of the excess noise of aircraft pusher propellers

(no paper) Recent developments in helicopter rotor noise prediction at NASA

(no paper) Passive-active low-frequency vibroacoustical fault diagnosis method

3PNSB__6 James C. Yu, Kenneth D. Wright, John S. Preisser, Michael A. Marcolini
Development of field measurement systems for flight vehicle noise

3pPA Physical Acoustics: Duct Acoustics II

- (no paper) Interaction between resonators and fluid motion in ducts
- 3PPA__2 Björn Lange, Dirk Ronneberger**
Active noise control by use of an aeroacoustic instability
- (no paper) Computational aeroacoustics of ducts using parallel computers
- (no paper) On the exact solution of the acoustic wave equation in a parabolic velocity profile in a hard-walled duct
- 3PPA__5 Lars Enghardt, Yanchang Zhang, Wolfgang Neise**
Experimental verification of a radial mode analysis technique using wall-flush mounted sensors
- (no paper) Experimental study of acoustic impedance of a Helmholtz resonator submitted to a grazing flow
- (no paper) On the acoustic of inverse sinusoidal and catenoidal nozzles (Poster)

3pPPa Psychological and Physiological Acoustics: Perceptual Processing of Cross-Spectral Information

- | | |
|------------|---|
| (no paper) | Matching formant frequencies of complex sounds on different fundamentals |
| (no paper) | A "missing data" model of F0-invariance in vowel perception |
| (no paper) | Evidence of a dissociation between the mechanisms governing the perceptual grouping of spectral components and the computation of low pitch |
| (no paper) | Auditory processing of coherent and incoherent frequency modulation |
| (no paper) | Searching for a time window for timbre: Dynamic spectral profiles |
| (no paper) | [cancelled; discussion or break] |

3pPPb Psychological and Physiological Acoustics: Sound Quality

- 3PPPB__1 Reinhard Weber**
Interior car sound quality - Assessment of acceleration noises
- 3PPPB__2 Monica Söderholm, Daniel Västfjäll**
The influence of sound quality on expected visual impression
- 3PPPB__3 Etienne Parizet**
Comparison of two semantic-differential test methods
- 3PPPB__4 G. Krump**
Concerning the perception of narrow band frequency response variations of loudspeakers
- 3PPPB__5 Kai Johannsen, Holger Prante**
Determination of hearing dimensions and their relations to psychoacoustic descriptors
- 3PPPB__6 Jörg Becker-Schweitzer, Markus Sapp, Frederik Gorges**
New approach in measuring auditory source width

3pSA Structural Acoustics and Vibration: Structural Vibrations

3PSA__1 Qingchun Li, Jacek Jarzynski
Torsional waves in a viscoelastic layer

3PSA__2 S. Finnveden, R. J. Pinnington
Strain concentration and fatigue of pipework

(no paper) On the dynamic interaction of a pipe conveying fluid with an elastic resisting medium

(no paper) Investigation at a top counter weight of a washing machine

(no paper) A mixed use of finite element and geometrical techniques

(no paper) Irregular modes at the endshield of a heating system motor

3pSC Speech Communication: Psychoacoustic Methods in Speech Recognition II

- (no paper) Application of a roughness model to pathological voices
- (no paper) How children recognize spoken words in speech recognition threshold assessment
- 3PSC___3 M. Brucke, W. Nebel, A. Schwarz, B. Mertsching, M. Hansen, B. Kollmeier**
Silicon cochlea: A digital VLSI implementation of a quantitative model of the auditory system
- 3PSC___4 Wolfgang Wokurek**
Entropy rate based speech segmentation
- (no paper) discussion

3pSP Signal Processing in Acoustics and Engineering Acoustics: Binaural Technology II

- (no paper) Implementation issues in the development of a real-time, Windows-based system to study spatial hearing
- (no paper) Computational model of an individual head-related transfer function using the BEM
- (no paper) Auditory perception of reverberant surroundings
- 3PSP__4 Paul Shields, Mark Girolami, Douglas Campbell**
A comparison of wide-band LMS, sub-band LMS and the SAMLE approach to adaptive noise cancellation for speech enhancement
- (no paper) [cancelled; discussion or break]

3pUWa Underwater Acoustics: Sediment Acoustics

(no paper) Volume scattering realizations from ocean sediment sound speed and density inhomogeneities

(no paper) In-sediment coherence measurements in a very shallow water area

(no paper) Sediment critical angle estimation via in-situ acoustic measurements

3PUWA__4 Isaac R. Shreiber
Bulk viscosity model in acoustics of bubbly water saturated soil

3PUWA__5 Franck Sgard, Nouredine Atalla, Raymond Panneton
A mixed wave-finite element approach for solving Biot's poroelasticity equations in acoustics

3pUWb Underwater Acoustics: Scattering from Underwater Structures

3PUWB__1 Harald Peine, Wolfgang Kroll
Influence of sound-structure interaction on backscattering amplitude in underwater acoustics

- (no paper) A perturbation theory for scattering from targets near rough surface sediments: Numerical results
- (no paper) Localized modes of oscillating structures which lie on the bottom
- (no paper) Trapping modes of oscillations in an infinitely long waveguide with submerged object in the form of a massive die
- (no paper) Repulsion phenomena in the phase-velocity dispersion curves of circumferential waves on elastic cylindrical shells
- (no paper) Localization in acoustic propagation in water with air cylinders

4a - THURSDAY MORNING, 18 MARCH 1999

4aAAa Architectural Acoustics and Signal Processing in Acoustics: Verification of Auralization and Modeling Programs II

(no paper) Prediction of subjective properties of a sound field in a concert hall with tenth-scale model

(no paper) The geometric room model as a surround-sound auralization resource

4AAAA__3 Dominique Archambeau
Realization of an auralization software based on echograms calculated by a sound ray technique

(no paper) [cancelled; discussion or break]

4AAAA__5 Rendell Torres, Mendel Kleiner
Considerations for including surface scattering in auralization

(no paper) Acoustical modeling and auralization as a design tool for concert hall renovation

4AAAA__7 Jean-François Dindart, Jean-Jacques Embrechts, Catherine Sémidor
Use of a Kirchhoff bidirectional reflectance distribution function in a particle tracing method

4AAAA__8 Guido Bartsch
A simulation package for room acoustics with an open interface

4AAAA__9 Andor T. Fürjes, Éva Arató-Borsi, Fülöp Augusztinovicz, Tamás Póth
Evaluation and modeling of small rooms

4aAAb Architectural Acoustics: Development and Verification of Prediction Methods in Building Acoustics

- (no paper) Intercomparison test of sound insulation measurement in test facilities I
- (no paper) Intercomparison text of sound insulation measurement in test facilities II
- 4AAAB__3 Sean Smith, Roberto Pompoli
Verification of using SEA to model differing laboratory conditions**
- 4AAAB__4 Marco Fringuellino, Sean Smith
Predicting sound transmission through perforated brick walls using SEA**
- 4AAAB__5 Eddy Gerretsen
Predicting the sound reduction of building elements from material data**
- 4AAAB__6 Carl Hopkins
Measurement of Kij with free-standing masonry walls**
- 4AAAB__7 T.R.T. Nightingale, R. E. Halliwell
Vibration response of building elements in wood frame constructions when excited along an edge**
- 4AAAB__8 Ivan Bosmans, Trevor R.T. Nightingale
Structure-borne sound transmission at floor/joist connections in wood frame buildings**
- 4AAAB__9 Dan Brøsted Pedersen
Evaluation of prEN part 1 and 2 for Nordic dwelling houses**
- 4AAAB_10 Heinrich A. Metzen
Application of CEN-prediction models to German building situations**
- 4AAAB_11 Rolf Schumacher, Bernd Saß
Vertical flanking sound transmission loss by timber-frame-glass-facades**
- 4AAAB_12 Bernd Saß, Rolf Schumacher, Hans Froehlich
About the sound insulation of windows**
- (no paper) [cancelled] (Poster)
- 4AAAB_14 Manuel Recuero López, Constantino Gil, Antonio Mínguez
Prediction equations of isolating systems: Gypsum panels (Poster)**

4aABa Animal Bioacoustics: Acoustics of Terrestrial Animals

(no paper) Spotted owls reactions to helicopter and chain saw noise

(no paper) Mechanisms of auditory distance perception in passerine birds

4AABA__3 Karl-Heinz Frommolt
Acoustic structure of chorus howling in wolves and consequences for sound propagation

(no paper) The harmonics to noise ratio applied to dog barks

4AABA__5 Bernd Faulstich, Manfred Kössl
Otoacoustic emissions and their neuronal correlates in the Mongolian gerbil

(no paper) Aversion related changes in the call structure of Squirrel monkey vocalizations

4AABA__7 G. Marx, E. von Borell, T. Horn, J. Thielebein
Vocalisation analysis during the castration of pigs

4aABb Animal Bioacoustics: Acoustics of Echolocating Animals

- (no paper) Do echolocating bats use the acoustic flow field?
- (no paper) Auditory scene analysis for perceptually-guided behavior in the echolocating bat
- (no paper) Auditory categories for the perception of echo spectra in bats
- (no paper) Does echolocation wavelength restrict bats' choice of prey?
- (no paper) The role of selection in marine mammal biosonar: Why pinnipeds don't echolocate

4aAO Acoustical Oceanography: Seafloor Classification I

- (no paper) A theoretical and experimental examination of seabed discrimination using the 1st and 2nd backscatter from an echo sounder
- (no paper) Variability in the acoustic response from natural shallow water marine sediments
- 4AAO__3 **Xavier Lurton, Laurent Guillon**
Seafloor characterization using a low-frequency multibeam echosounder: Ambiguities in backscattering strength interpretation**
- 4AAO__4 **Philippe Blondel**
Textural analysis of sidescan sonar imagery and generic seafloor characterisation**
- (no paper) Optimized echo-envelope matching for acoustic sediment classification with high frequency single beam sonars
- (no paper) Recent advances in acoustic sediment classification
- (no paper) Inversion of short range bistatic scatter for seabed properties
- (no paper) Sediment geoacoustics properties determined from local and spatially integrated measurements of interface waves
- (no paper) Model-based seafloor identification with parametric sonar data: Experimental results
- (no paper) [cancelled; discussion or break]
- 4AAO__11 **Ling Xiao, Renhe Zhang, Zaixiao Gong**
Estimating the ocean bottom properties from multi-frequency data by controlled exhausted search method**
- (no paper) Seismic depth imaging and remote sensing of rock properties

4aBB Biomedical Ultrasound/Bioresponse to Vibration: Modeling and Imaging

- (no paper) Time domain numerical solution of the KZK equation for modeling sound beams radiated by rectangular sources
- 4ABB__2 A. Lorenz, G. Schäpers, H.-J. Sommerfeld, M. Garcia-Schürmann, S. Philippou, T. Senge, H. Ermert**
On the use of a modified optical flow algorithm for the correction of axial strain estimates in ultrasonic elastography for medical diagnosis
- 4ABB__3 Jochen F. Krücker, Charles R. Meyer, Theresa A. Tuthill, Gerald L. LeCarpentier, J. Brian Fowlkes, Paul L. Carson**
3D compounding of B-Scan ultrasound images
- 4ABB__4 Andriy Borisyuk**
Modeling of noise generation by turbulence in a larger human blood vessel
- 4ABB__5 Tadeusz Powalowski, Zbigniew Trawiński, Arnold Hoeks, Marcel Rutten**
Ultrasonic examination of the forward and reflected pressure waves in human arteries
- (no paper) Ultrasound diagnostic of the blood-vessels random neoplasm distributed in focus sphere limited environs
- 4ABB__7 Victor I. Passechnik, Andrej A. Anosov, Konstantin M. Bograchev**
Passive thermoacoustic tomography - A new kind of acoustic imaging for material testing and medicine
- 4ABB__8 Marek Moszyński, Waldemar Lis, Roman Salamon**
Wavelet imaging of the temporomandibular joint in motion for a real-time diagnosing system
- (no paper) Pulse waveform design using time reversal for cardiac ultrasound imaging
- (no paper) Potential applications of ultrasound-stimulated vibro-acoustography in medical diagnosis and material characterization

4aEA Engineering Acoustics and Signal Processing in Acoustics: Digital Signal Processing for Hearing Aids I

- 4AEA__1 Jeremy Agnew**
Digital signal processing in hearing aids
- (no paper) Noise reduction algorithms for digital hearing instruments
- (no paper) Noise reduction strategies employing interaural parameters
- 4AEA__4 Mark Marzinzik, Thomas Wittkop, Birger Kollmeier**
Combination of monaural and binaural noise suppression algorithms and its use for the hearing impaired
- (no paper) Signal processing algorithms for an open-platform DSP hearing aid
- 4AEA__6 Søren Laugesen, Kim Vejlbj Hansen, Johan Hellgren**
Acceptable delays in hearing aids and implications for feedback cancellation
- 4AEA__7 Juan Carlos Tejero-Calado, Janet C. Rutledge, Peggy B. Nelson**
Real-time combined compression and linear gain processing for digital hearing aids
- (no paper) Electrical compensation of the microphone sensitivities in a dual microphone directional hearing aid
- (no paper) Acoustic feedback reduction in hearing aids - A feasibility study
- (no paper) A 4-microphone noise reduction system for hearing aids
- 4AEA__11 G. Szwoch, B. Kostek**
Modeling of acoustics of hearing aid earmold systems
- 4AEA__12 Uwe Rass, Gerhard H. Steeger**
A high performance wearable signal processor system for the evaluation of digital hearing aid algorithms

4aED Education in Acoustics: Demonstrations in Acoustics Education

(no paper) A computer based lung sound simulator

4AED__2 Vygantas Augutis, Darius Gailius
Measurement and visualization of vibroacoustic fields caused by impact on a surface of a solid

(no paper) Speech and hearing demonstrations in MATLAB

(no paper) Hydrodynamic analog of a thermoacoustic device

4AED__5 Martina Kremer, Detlef Krahé
A learning program in psychoacoustics with interactive computer-based listening experiments

(no paper) [cancelled; discussion or break]

(no paper) Education of applied acoustics for students of automotive engineering (Poster)

4AED__8 Pierre Dutilleux, Christian Müller-Tomfelde
AML - Architecture and music laboratory (Poster)

4aMU Musical Acoustics: Quality of Musical Instruments and Human Voice

(no paper) Some aspects on fairly objective results of subjective tests

(no paper) Vocal qualities that singers can control but often limit

(no paper) Assessment of musical instrument quality criteria: The notion of "openness" for a trumpet

4AMU__4 Gregor Widholm Diagnosis and therapy for brasses. Measurement, evaluation and improvement of the acoustic quality of brass wind instruments

(no paper) Violin quality and bridge mobility

(no paper) Quality aspects of violin bows

(no paper) Tone quality and important modal properties of the guitar

(no paper) Acoustic quality of musical instruments and categorization

4AMU__9 Alexander Galembo, Anders Askenfelt, Lola L. Cuddy On the effect of phase relations for the perception of pitch and timbre of bass tones

4AMU__10 Jan Tro Evaluation of performance precision in piano chords

(no paper) The effect of crook profile on the perceived playing properties of the bassoon

(no paper) A common origin for vocal accuracy and melodic expectancy: Vocal constraints

4aNSa Noise: Transportation Noise and Its Effects on People

- 4ANSA__1** **Evy Öhrström**
Sleep disturbances caused by road traffic noise
- (no paper) [cancelled; discussion or break]
- 4ANSA__3** **Barbara Griefahn, Carola Deppe, Peter Mehnert, Rudolf Moog, Ulrich Moehler, Anke Schümer-Kohrs, Rudolf Schuemer**
An interdisciplinary study on railway and road traffic noise: Behavioral results
- 4ANSA__4** **U. Moehler, M. Liepert, R. Schuemer, B. Griefahn**
The effects of determination of acoustic data in field studies
- 4ANSA__5** **M. Liepert, U. Moehler, R. Schuemer, B. Griefahn**
An interdisciplinary study on railway and road traffic noise: Acoustical results
- 4ANSA__6** **Dirk Schreckenberg, Anke Schuemer-Kohrs, Rudolf Schuemer, Barbara Griefahn, Uli Moehler**
An interdisciplinary study on railway and road traffic noise: Annoyance differences
- 4ANSA__7** **Rainer Guski, Ute Felscher-Suhr, Rudolf Schuemer**
Measuring retrospective annoyance in field studies: Prerequisites, procedures, and problems
- 4ANSA__8** **Monika Bullinger, Staffan Hygge, Gary W. Evans, Markus Meis, Sylvia von Mackensen**
Psychological & motivational effects of aircraft noise for children
- (no paper) Noise annoyance assessment around Paris airports
- (no paper) [cancelled; discussion or break]

4aNSb Noise: Noise Emission from Machinery I

- 4ANSB__1 Hans Lazarus, Patrick Kurtz**
Noise emission - A part of the risk assessment concerning the safety of machinery
- (no paper) A review of current strategies and criteria for low frequency noise control from combustion turbines
- (no paper) Noise emission measurements in situ- A comparison between different methods
- 4ANSB__4 Jean R. Jacques**
Strategy for locating the reference sound source and microphones when determining sound power in situ. A theoretical investigation for the revision of ISO 3747.
- 4ANSB__5 G. Hübner, V. Wittstock**
Sound power determination using sound intensity scanning procedure - An investigation to check the adequacy of sound field indicators and criteria limiting the measurement uncertainty
- 4ANSB__6 Gustav A. Sehrndt, Karlheinz Biehn**
Remarks about the local environmental correction for determination of the emission sound pressure level
- 4ANSB__7 Gerhard Hübner, André Gerlach**
Determination of the airborne sound power radiated by structure-borne sound sources of arbitrary shape using the direct finite element method - further developments
- 4ANSB__8 Mirko Čudina**
Noise as indicator of instability in centrifugal pumps
- (no paper) The description of noise emission from machinery for use in software programs for noise prediction

4aPAa Physical Acoustics and Engineering Acoustics: Numerical Methods for Computing Sound Radiation and Scattering I

- (no paper) Application of the surface variational principle in coupled fluid-structure interaction analysis
- 4APAA__2 D. W. Herrin, A. F. Seybert, T. W. Wu**
Energy source simulation method for solving two-dimensional acoustic problems
- (no paper) An impedance coating formulation for a coupled structural acoustics code
- 4APAA__4 Anton Homm**
Numerical computation of underwater sound scattering from complex elastic object
- (no paper) Leaky wave scattering contributions of tilted thick cylindrical shells in water above the coincidence frequency: Ray theory and computational models
- (no paper) Model and experiments of multiple acoustical scattering from small obstacles
- (no paper) Computational methods and experimental measurements of scattered ultrasonics transient fields
- (no paper) A time-domain numerical model for the acoustic scattering for rigid or elastic targets
- 4APAA__9 Eugene J. Danicki, Donna C. Hurley**
Resonant scattering phenomenon by in-plane periodic cracks
- 4APAA_10 Ping Wu, Tadeusz Stepinski**
An approach to calculating spatial impulse response of curved transducers: Linear arrays with cylindrically curved surfaces
- (no paper) Radiation of a sphere near reflecting planes
- 4APAA_12 Tohru Imamura**
Ultrasonic field analysis by numerical quadruple integration with repeated trapezoidal rule

4aPAb Physical Acoustics: Measurement and Evaluation of Ultrasound I

(no paper) Hydrophone calibration at the UK National Physical Laboratory: From primary standards to dissemination

(no paper) Ultrasonic power measurement by means of radiation force

**4APAB__3 Burkhard Fay, Hans-Peter Reimann
Thermoacoustic sensors**

(no paper) Fiber-tip sensors for ultrasonic measurement

**4APAB__5 Andrew Hurrell, Francis Duck
Two dimensional hydrophone arrays: Measurement methods for the new millennium**

(no paper) [cancelled; discussion or break]

(no paper) Toepler, Mach and Wood: The visualization of sound

**4APAB__8 L. Filipczyński, J. Etienne, T. Kujawska, G. Łypacewicz, J. Wójcik
Wide band calibration of a PVDF hydrophone by an electromagnetic one using theoretical spectra of overtones**

(no paper) Optical measurement of wide bandwidth ultrasound fields

(no paper) Methods of beam divergence corrections on broadband direct contact ultrasonic technique

(no paper) Characterization of ultrasonic contact transducers using a Michelson interferometer

4aPac Physical Acoustics: Elastic Properties of Materials I: Methods

- 4APAC__1 B. Cretin, P. Vairac, R. Patois**
Quantitative measurements of solid and fluid properties with near-field acoustics
- (no paper) [cancelled; discussion or break]
- (no paper) Influence of the deposition conditions on the elastic properties of chemical vapor deposited (CVD) diamond films studies by laser ultrasonics
- (no paper) Measurement of elastic properties of GaAs with laser-generated surface acoustic waves
- 4APAC__5 Paul Wallner, Werner Ruile, Robert Weigel**
Behavior of the LSAW loss in multi-layer systems
- 4APAC__6 F. Honarvar, A. N. Sinclair, Y. Fan**
Characterization of elastic materials by resonance acoustic spectroscopy
- (no paper) Thermoacoustic testing on thermal protection systems
- 4APAC__8 Hans Georg Bossemeyer**
Evaluation technique for spectra of complex Young's moduli
- (no paper) The nonlinear mesoscopic elasticity class of materials
- 4APAC_10 Koen E-A. Van Den Abeele**
Elastic nonlinearity and damage detection in quasi-brittle materials using single mode nonlinear resonance acoustic spectroscopy
- (no paper) Nonlinear slow dynamics and memory in rocks

4aPAd Physical Acoustics: Shock Waves in Liquids

- (no paper) Shock wave characteristics in liquids and extracorporeal lithotripsy
- (no paper) Numerical simulation of ultrasonic shock wave propagation in lossy liquids obeying a frequency power law
- (no paper) [cancelled; discussion or break]
- (no paper) Shock waves from cavitation bubbles
- (no paper) Phase conjugated ultrasonic beams of finite amplitude
- (no paper) Acoustic time reversal experiments in nonlinear regime
- (no paper) Nonlinear profiles and spectra transformation in going from vibrating piston to travelling wave
- (no paper) Nonlinear phenomena in resonator caused by finite displacement of vibrating piston

4APAD__9 Michal Bednařík
Nonlinear waves in closed tubes

4APAD_10 Claes M. Hedberg
The multi-frequency solution for periodic nonlinear and dissipative waves

4APAD_11 A. M. Kochański, J. P. Mejnartowicz, A. Latos-Bieleńska, J. Etienne, L. Filipczyński
Double-strand cellular DNA damage by lithotripter generated shock waves

4aPPa Psychological and Physiological Acoustics: Models and Sound Quality (Poster Session)

- 4APPA__1** **Ralph P. Derleth, Torsten Dau**
Modeling masking patterns for sinusoidal and narrowband noise maskers (Poster)
- (no paper) Frequency selectivity in amplitude-modulation processing (Poster)
- 4APPA__3** **Shin-ichi Sato, Yoichi Ando**
On the apparent source width (ASW) for bandpass noises related to the IACC and the width of the interaural cross correlation function (W_{IACC}) (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) Time constants of pitch processing arising from auditory filtering (Poster)
- 4APPA__6** **E. Blumschein**
Do ears really just perform frequency analysis of crackle sound? (Poster)
- 4APPA__7** **Christoph Eichenlaub, Reinhard Weber**
Relevant psychoacoustic parameters in assessments on wind turbine noises (Poster)
- 4APPA__8** **Imke Raubold, Reinhard Weber**
Categorical assessments on fluctuation strength of synthesized sounds (Poster)
- 4APPA__9** **Holger Ostendorf, Reinhard Weber**
Validation of objective assessment methods for tonal noise from wind farms (Poster)
- (no paper) Response to low frequency HVAC noise (Poster)
- 4APPA_11** **Matthias Scholz, Vincent Rioux, Daniel Västfjäll, Mendel Kleiner**
PSYCHAT - A program for psychoacoustical tests (Poster)

4aPPb Psychological and Physiological Acoustics: Central Auditory Processing

(no paper) Sensory dissonance of two-tone complexes

4APPB__2 Nicole H. van Schijndel, Tammo Houtgast, Joost M. Festen
Perceptual consequences of spectro-temporal smearing in the wavelet coding of speech

(no paper) The Indiana test of auditory memory and processing rate (ITAMPR)

(no paper) Comparisons between but not within sounds are impaired in stroke victims with unilateral neglect

(no paper) Influence of condition variation on learning in auditory backward masking

4APPB__6 Uwe Seifert, Lueder Schmidt, Randolph Eichert
Computational audition: Perceptual organization and systematic music theory

4aPPc Psychological and Physiological Acoustics, Speech Communication and Musical Acoustics: Honoring the Contributions of Reinier Plomp

- (no paper) On the tones that make music
- (no paper) Honoring the contributions of Reinier Plomp in psychoacoustics
- (no paper) Contributions of spectral resolution to speech recognition in noise
- (no paper) Speech perception: Ideas and concepts initiated by Reinier Plomp

4APPC__5 Reinier Plomp
50 years in (psycho)acoustics: Some conclusions

4aSAa Structural Acoustics and Vibration: Smart Materials I

- 4ASAA__1 U. Gabbert, Ch.-T. Weber**
Numerical simulation and optimization of smart piezoelectric structures
- 4ASAA__2 Hans Irschik, Michael Krommer, Uwe Pichler**
Annihilation of beam vibrations by shaped piezoelectric actuators: Coupled theory and FE-validation
- (no paper) Closed loop finite element modeling of smart structures - an overview
- 4ASAA__4 F. Bourquin, J-S. Briffaut, M. Collet, M. Joly, L. Ratier**
Fast control algorithms for beams: Experimental results
- (no paper) [cancelled; discussion or break]
- (no paper) Variational formulations for the vibration of a micropolar piezoelectric body
- (no paper) Active noise reduction for steel bridges
- (no paper) Wavelets transform in oscillation and optimal feedback control of smart cantilever thin walled beams
- (no paper) Love waves in non-classic micropolar piezoelectricity
- (no paper) A coupled finite element-normal modes expansion method to model Lamb waves generated with integrated transducers in composite plates
- (no paper) Active noise and vibration control for turboprop aircraft

4aSAb Structural Acoustics and Vibration: International Workshop on Active Noise and Vibration Control - - Active Noise Control in Enclosures

- (no paper) Developments in active control of aircraft interior noise-Directions for tonal and broadband noise sources
- (no paper) Active noise and vibration control for a high speed railcar: Rolling rig measurements
- (no paper) Two unique approaches for actively controlling the interior acoustic response of a cylindrical aircraft enclosure using active constrained layer damping and end actuation
- (no paper) The reduction of structure-borne road noise by active noise and vibration control
- 4ASAB__5 Colin F. Ross**
Active noise control in aircraft cabins
- 4ASAB__6 Uwe Letens, Gregor Koners, Timothy J. Saunders**
Adaptive road noise cancellation for a midclass estate car
- (no paper) Active noise control experiences on a GT high speed car
- 4ASAB__8 M. A. Galland, O. Lacour, D. Thenail**
Active control of enclosed sound fields via impedance changes
- 4ASAB__9 Frank Simon, Simone Pautin**
Active noise control procedures into a generic composite helicopter cabin
- 4ASAB_10 M. Viscardi, M. Fontana, A. Vecchio, B. Mocerino, L. Lecce**
An active approach to interior noise reduction for a modern electrical locomotive
- 4ASAB_11 Teresa Bravo, Pedro Cobo, Juan Manuel Martín**
A multichannel active system for control of the booming inside a van

4aSCa Speech Communication: Parameters of F0 Contours

(no paper) Modeling the alignment of fundamental frequency contours

(no paper) Measuring perceptual equality

(no paper) discussion

4ASCA__3 Gregor Möhler Comparing two different principles of parametric F_0 modeling

(no paper) Analysis and synthesis of F0 contours by linear prediction coding

(no paper) discussion

4aSCb Speech Communication: Potpourri of Speech Production, Speech Disorders, Auditory Feedback and Other Fascinating Topics (Poster Session)

- 4ASCB__1 Patrick C.M. Wong, Randy L. Diehl**
The effect of reduced tonal space in Parkinsonian speech on the perception of Cantonese tones (Poster)
- 4ASCB__2 Masanobu Kumada, Fredericka Bell-Berti, Douglas N. Honorof**
Comparing materials for the evaluation of spasmodic dysphonia patients (Poster)
- (no paper) Perceptual rating and acoustic analysis of tracheo-esophageal voice (Poster)
- (no paper) Assessment of BOTOX effects on adductor spasmodic dysphonia using LTAS guided analysis (Poster)
- (no paper) Linear and nonlinear responses to speech rate in left and right temporal cortex (Poster)
- (no paper) A functional neuroimaging comparison of the neural processing of speech and signal correlated noise (Poster)
- (no paper) Brain function in spasmodic dysphonia: A functional MRI study (Poster)
- (no paper) Attention to auditory feedback during sentence production by speakers with and without stuttering (Poster)
- (no paper) Effect of target source and dynamics on voice F0 stability in the presence of auditory feedback pitch perturbations (Poster)
- (no paper) Rapid changes in speech parameters with a change in auditory stimulation from a cochlear implant (Poster)
- (no paper) A longitudinal investigation of formant frequency development in children's speech production (Poster)
- 4ASCB_12 Asli Ozdas, Richard G. Shiavi, D. Mitchell Wilkes, Marilyn K. Silverman, Stephen E. Silverman**
Acoustical correlates of near-term suicidal risk (Poster)
- 4ASCB_13 David Canning, Allen Hirson, Paul Arnold**
Classroom acoustics and vocal efficiency (Poster)
- (no paper) Cross-modal integration in speech and nonspeech tasks (Poster)
- 4ASCB_15 Michael D. Hall, Jordan R. Green, Christopher A. Moore, Patricia K. Kuhl**
Contribution of articulatory kinematics to visual perception of stop consonants (Poster)
- (no paper) Research on the acoustic features of stutterer's voices for the purposes of computer animation (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) Influence of the direction of a single reflection on speech intelligibility (Poster)
- (no paper) The adaptive modified rhyme test (Poster)
- (no paper) Method for the development of sentence materials for efficient measurement of the speech reception threshold (Poster)
- (no paper) Spectrographic analysis of stuttering episodes (Poster)
- 4ASCB_22 Thomas Arnhold, Hans Georg Piroth**
The learning of tactile syllables as reflected by blink rate and skin conductance variations (Poster)

4aSP Signal Processing in Acoustics: Acoustic Signal Processing for Systems with 2D/3D Sensor Arrays I

- (no paper) [cancelled; discussion or break]
- (no paper) Requirements to signal processing for visualising surfaces from 3D ultrasound datasets
- (no paper) Exploitation and usage of signal evaluating concepts of the nature - ultrasonic data acquisition and neural network signal processing
- (no paper) Multi-dimensional adaptive beamforming for integrated active-passive sonar and medical imaging applications
- (no paper) Matched-field imaging of laser ultrasound using a novel correlation cancelling approach
- (no paper) Application of the continuous wavelet transform to the angular location of jet aircraft
- 4ASP__7 Jacek Lasecki, Andrzej Czyżewski**
Neural network-based spatial filtration algorithm for 2-microphone array
- (no paper) [cancelled; discussion or break]
- 4ASP__9 Christos Sevastiadis, Christodoulos Chamzas, George Kalliris, George Papanikolaou**
Software for estimation and processing simulation of microphone line arrays
- (no paper) [cancelled; discussion or break]
- 4ASP__11 Roy Adams, D. Keith Wilson, Nassy Srour, Brian Sadler**
A statistical analysis of acoustical detection and tracking of small jet aircraft
- (no paper) Multidimensional array signal processing with multidimensional matrix operations

4aUW Underwater Acoustics: Rough Surface Scattering, Bubbles and Noise

- 4AUW__1 R. C. Gauss, J. M. Fialkowski**
A new, semi-empirical model for predicting bistatic surface backscattering strengths
- 4AUW__2 J. W. L. Clarke, T. G. Leighton, G. J. Heald, H. A. Dumbrell**
Time-dependent scattering from bubble clouds: Implications for the use of acoustic pulses
- (no paper) A time-domain path integral method for analyzing reflections from a rough sea surface
- (no paper) Surfzone breaking wave air entrainment and noise generation
- (no paper) Acoustic measurements of air entrainment by a plunging free water jet
- 4AUW__6 Stanisław J. Pogorzelski**
The influence of marine surface films on underwater sound
- (no paper) Under-ice noise resulting from thermally-induced fracturing of the Arctic ice pack: Theory and a test case application
- (no paper) [cancelled] (Poster)
- 4AUW__9 Françoise Schmitt, Franck Daout**
Wave scattering in underwater acoustics (Poster)
- (no paper) The effect of grease ice formation on ambient noise (Poster)
- (no paper) Scattering and reflection of sound by random rough surfaces (Poster)

4p - THURSDAY AFTERNOON, 18 MARCH 1999

4pAA **Architectural Acoustics: Building Acoustics I: Airborne and Impact Sound Transmission and Classroom Acoustics**

- (no paper) The influence of identical room dimensions on the sound insulation at low frequencies
- (no paper) Sound transmission loss of double-glazed window panes - An empirical approach
- 4PAA__3 Andreas Kurz, Knut Schroeter, Wolfgang Teuber, Ernst-Joachim Voelker**
Level differences in shaft measurements in the IAB Laboratory
- (no paper) Noise propagation in open-plan space with barriers
- (no paper) An algorithm for auralization of airborne sound insulation
- (no paper) [cancelled; discussion or break]
- 4PAA__7 António P. O. Carvalho, Constantinos Vafiadis, Hugo Borrego**
The use of agglomerated cork as underlay for improvement of impact sound insulation in buildings
- 4PAA__8 Knut Schroeter, Wolfgang Teuber, Ernst-Joachim Voelker**
Sound irradiation from walls, ceilings, and floors when excited by impact sound from fresh and waste water - Measurements at IAB
- (no paper) Speech intelligibility in simulated classroom sound fields
- (no paper) [cancelled; discussion or break]
- 4PAA__11 Gary W. Siebein, Martin A. Gold, Michael G. Ermann, Joseph Walker**
Background noise levels in classrooms
- (no paper) Good acoustics: A target for the new school of architecture
- 4PAA__13 Jaehee Jang, Byunghun Lim, Sangwoo Lee**
System development to reduce floor impact sound in apartment houses (Poster)
- 4PAA__14 Eberhard Küstner, Peter S. Krämer, Jürgen Scholze, Ernst Sonntag**
Additional improvement of air-borne and impact sound insulation of ceilings in prefabricated standard-buildings (Poster)
- (no paper) Towards a classification of acoustic comfort. A case study of a university classroom (Poster)

4pAB Animal Bioacoustics: Acoustics of Echolocating Animals II

- (no paper) Discrimination of phantom targets by an Atlantic bottlenose dolphin
- (no paper) The transmission beam pattern and echolocation signal of the harbor porpoise (*Phocoena phocoena*)
- (no paper) Sperm whale clicks and the Norris/Harvey theory of click generation
- (no paper) Insights into the acoustic behavior of sperm whales
- 4PAB__5 Olaf Jäke, Stephen Dawson**
Acoustic censusing of sperm whales at Kaikoura, New Zealand - An inexpensive method to count clicks and whales automatically
- 4PAB__6 Konstantin G. Kebkal**
Specific food-related calling in dolphins
- (no paper) [cancelled; discussion or break]
- (no paper) A plausible mechanism of acoustic click production in the dolphin
- (no paper) [cancelled; discussion or break]
- (no paper) Improved signal processing techniques for measurement of the inter-pulse interval (IPI) of sperm whale clicks
- (no paper) Why do whales communicate at the frequencies they do? Lessons from underwater acoustic signal processing

4pAO Acoustical Oceanography: Acoustic Seafloor Classification II

- (no paper) Aspects of near-real time acoustic sediment characterization
- (no paper) [cancelled; discussion or break]
- (no paper) Effects of differing sediment types and structures on normal incident acoustic reflections
- (no paper) In situ, laboratory and modeled permeability of unconsolidated sands
- 4PAO__5 Stephen F. Bloomer, N. Ross Chapman, William T. Collins, Peter G. Simpkin**
Subsurface classification of shallow gassy river sediments using broadband seismic data
- (no paper) Acoustic inversion for Biot parameters in water saturated sand
- (no paper) Acoustic classification of a shell-covered seafloor
- 4PAO__8 Eric Smith, Michael D. Richardson, Warren T. Wood, Wolfgang Jans**
Scaling regimes in incoherent surface-reflected and in-sediment sound fields
- (no paper) Seabottom roughness study using Hydrosweel-multibeam system
- 4PAO__10 Zbigniew Łubniewski, Marek Moszyński, Andrzej Stepnowski**
The inverse problem approach to the sea bottom identification
- (no paper) Seafloor scattering: Modeling and analysis of classification clues
- (no paper) [cancelled] (Poster)
- (no paper) [cancelled] (Poster)

4pBB Biomedical Ultrasound/Bioresponse to Vibration: Lithotripsy

- 4PBB__1** **Michael R. Bailey, Robin O. Cleveland, Oleg A. Sapozhnikov, James A. McAteer, James C. Williams, Jr., Lawrence A. Crum**
Effect of increased ambient pressure on lithotripsy-induced cavitation in bulk fluid and at solid surfaces
- (no paper) Clinical evaluation of cavitation thresholds in patients undergoing lithotripsy
- 4PBB__3** **Andrew P. Evan, Bret A. Connors, Debra J. Pennington, Philip M. Blomgren, James E. Lingeman, Naomi S. Fineberg, Lynn R. Willis**
Pre-existing renal disease enhances the renal vasoconstriction induced by SWL
- (no paper) Controlled and forced collapse of inertial cavitation bubbles during SWL
- (no paper) Shock wave - inertial microbubble interaction
- (no paper) Transfer of an exact number of molecules into cells by shock waves
- 4PBB__7** **Friedrich Ueberle**
Aspects of pressure pulse lithotripter measurements
- (no paper) In vivo modelling of the HM3 lithotripter
- 4PBB__9** **Lynn R. Willis, Andrew P. Evan, Bret A. Connors, Philip M. Blomgren, Naomi S. Fineberg, James E. Lingeman**
SWL to one pole of one kidney attenuates the injury caused by subsequent SWL to the other pole of that kidney
- (no paper) Shot-to-shot variability of acoustic axis of a spark-source lithotripter
- 4PBB__11** **Dahlia L. Sokolov, Michael R. Bailey, Lawrence A. Crum**
Use of two pulses to localize and intensify cavitation in lithotripsy
- 4PBB__12** **J. P. Sferruzza, A. Birer, D. Cathignol**
Generation of very high pressure pulse at the surface of a sandwiched piezoelectric material

4pEAa Engineering Acoustics and Signal Processing in Acoustics: Digital Signal Processing for Hearing Aids II

- 4PEAA__1 Yingyong Qi, Andrew Dittberner**
Acoustical analysis on the performance of digital hearing aids
- 4PEAA__2 G.L. Gibian, Walter Koroljow, Andy LaRow, Scott Shaw, Peggy Nelson, LaGuinn Sherlock**
Clinical trials of a hybrid adaptive beamformer (HAB) for improved speech understanding in noise
- 4PEAA__3 Paul Shields, Douglas Campbell**
Qualitative and quantitative results from a speech enhancement scheme assessed by hearing-impaired subjects
- 4PEAA__4 Ivo L. D. M. Merks, Marinus M. Boone, A. J. Berkhout**
Array technology for binaural hearing aids-applications
- 4PEAA__5 Florian M. Koenig**
Headphones as nearfield electro-magnetic radiator's and probable health impairing objects

4pEAb Engineering Acoustics and Noise: Implications of Recent Standards

- 4PEAB__1 Leif Nielsen**
The role of international and European standardization in relation to European directives
- (no paper) Strategie policy of ISO/TC43 "Acoustics"
- (no paper) New trends in standards indicate need for more inter-laboratory comparisons and data
- 4PEAB__4 George S. K. Wong, Lixue Wu**
Implementation of ISO/IEC Guide 25 for acoustical standards at NRC Canada
- (no paper) Hot new topics in ASA/ANSI standardization
- 4PEAB__6 Hans-Elias de Bree, Miko Elwenspoek**
Sound intensity probes based on microflown technology

4pMU Musical Acoustics: Mapping Multiple Physical and Perceptual Attributes to Musical Structures

- 4PMU__1 James W. Beauchamp**
Timbral effect of parameter interchange between musical instrument types
- (no paper) Multidimensional scaling of musical timbre constrained by physical parameters
- 4PMU__3 Carolyn Drake, Laetitia Gros, Amandine Penel**
How fast is that music? The relation between physical and perceived tempo
- (no paper) Memory for melodies, poetry, faces and other complicated things
- (no paper) What makes singing expressive?
- (no paper) Vibrato and protameto, hypotheses and tests
- (no paper) Acoustical specification and musical meaning
- 4PMU__8 Scott D. Lipscomb**
Cross-modal integration: Synchronization of auditory and visual components in simple and complex media
- 4PMU__9 Annabel J. Cohen**
Music serves as a vehicle in multimedia contexts
- 4PMU__10 Catherine Semidor, Leonie Couthon, Aline Barlet**
Identification and qualification of instrumental sound sources: Elaboration of a methodology
- 4PMU__11 Pierre Dutilleux**
Amplification of the difference tones ($f_2 - f_1$)
- (no paper) Parsing complex rhythmic structures: The contribution of spectral and temporal dimensions of timbre

4pNSa Noise: Military Aircraft Noise

(no paper) A review of recent military aviation noise programs

(no paper) [cancelled; discussion or break]

(no paper) Adjustment factors for assessing long-term aircraft and other noise environments

4PNSA__4 Neil M. Standen, Gary W. Humphries Modeling of military aircraft noise in support of environmental impact mitigation

(no paper) The theoretical and practical aspects of producing source data for helicopter noise modeling

(no paper) Military aircraft noise and health - Methodological issues in research

4PNSA__7 G. Kerry, C. Lomax, P. D. Wheeler, D. J. James The response of the acoustic reflex to noise from low flying military jet aircraft

4PNSA__8 P. D. Wheeler, N. Matkovits Military jet aircraft overflights and children's hearing - allegations, issues and measurement uncertainties

(no paper) Presenting noise information to community decision makers

(no paper) [cancelled; discussion or break]

4pNSb Noise and Psychological and Physiological Acoustics: Product Sound Quality

(no paper) The perception of product sound quality

(no paper) Development of a noise criterion for laboratory medical instrumentation

4PNSB__3 Michiel A. A. Schallig
Adequacy of product sound: Design - develop - test; Is it so simple?

(no paper) Combined application of computer simulation and sound quality in the design of a home appliance

(no paper) 3D localization and characterization of acoustical sources in a truck cabin

4PNSB__6 Petra Muckel, Leo Ensel, Brigitte Schulte-Fortkamp
Exploration of Associated Imaginations on Sound Perception (AISP): A method for helping people to describe and to evaluate their sound perceptions

4PNSB__7 Nicolas Chouard, Thomas Hempel
A semantic differential design especially developed for the evaluation of interior car sounds

(no paper) [cancelled; discussion or break]

4PNSB__9 Daniel Västfjäll, Mendel Kleiner, Árni Ingvarsson
Affective judgment of aircraft sound quality

(no paper) Sound quality design for high speed trains indoor noise: Psychoacoustic evaluation of tonal components

4PNSB_11 Thomas Hempel, Nicolas Chouard
Evaluation of interior car sound with a new specific semantic differential design (Poster)

(no paper) Motion perception and loudness judgments (Poster)

4pNSc Noise: Urban Acoustics

- 4PNSC__1 Danièle Dubois, Sophie David**
A cognitive approach of urban soundscapes
- 4PNSC__2 M. Christine Couic, J. Jacques Delétré**
An intersensory approach to urban analysis and design
- 4PNSC__3 Philippe Woloszyn**
Fractal modelling of diffusive urban configurations
- 4PNSC__4 John M. MacDonald, Roger L. Wayson**
Overview of the railway noise model (RWNM)
- 4PNSC__5 Roger L. Wayson, John M. MacDonald**
The University of Central Florida community noise model
- (no paper) [cancelled; discussion or break]
- 4PNSC__7 Miguel Aloysio Sattler**
Urban noise survey for the city of Porto Alegre, Brazil
- 4PNSC__8 Chee Kwan Lee, Kwok Keung Lau**
Planning and designing of developments against noise impacts - Hong Kong experience
- (no paper) Local ordinance targeted to low frequency noise
- 4PNSC__10 Stefan Becker, Edelbert Schaffert**
Collection data of noise emissions from building construction sites
- 4PNSC__11 David Gaulin, Michel C. Bérengier, Claude Depollier**
Models for acoustic sources in urban areas
- 4PNSC__12 Judicaël Picaut, Laurent Simon**
Sound field modeling in streets by a diffusion equation

4pNSd Noise: Noise Emission From Machinery II

- (no paper) A new hybrid approach for estimating "in situ" the acoustic power radiated from vibrating structures
- (no paper) Localization of noise sources inside machines by using a scaled dummy head
- 4PNSD__3 Ulf Carlsson, Krystof Krynski
Order tracking of diesel engine with a Kalman filter**
- 4PNSD__4 S. Frikha, S. Boukhari, X. Mouton, A. Vitel
Characterisation of I. C. engines as a linear acoustic source using internal measurements**
- (no paper) Experimental study of rasping noise in internal combustion engine exhaust systems
- (no paper) [cancelled; discussion or break]
- (no paper) Development of a high frequency precision anechoic test facility
- 4PNSD__8 Uwe Baumann, Lorenz Jäger
Characteristics of MRI acoustic noise in functional imaging of the auditory pathways (Poster)**
- (no paper) Adaptive decision method for acoustical turbomachinery diagnostics (Poster)
- (no paper) Investigations of sound insulation of partitions used for integrated enclosures (Poster)

4pPAa Physical Acoustics and Engineering Acoustics: Numerical Methods for Computing Sound Radiation and Scattering II

- (no paper) Application of wavelet decomposition (space-wavenumber) to sound radiation 1D
- (no paper) BEM and the use of explicit frequency dependent matrices - A study on computing wave scattering and radiation
- (no paper) A surface element formulation of the equivalent source method
- (no paper) Two surface element formulations in the time domain for the calculation of sound fields in cavities with varying boundary conditions
- (no paper) Using the equivalent sources method for multibody radiation problem
- (no paper) Efficient boundary element calculations using thin-plate acoustic elements
- (no paper) Finite element methods applied to the propagation of acoustic wave along immersed wedges
- (no paper) A combined finite element, boundary integral and spherical harmonic hybrid technique for computing multiple body sound radiation

4PPAA__9 Walter Eversman
A reflection free boundary condition for propagation in uniform flow using mapped infinite wave envelope elements

4PPAA_10 Kai-Ulrich Machens
How reliable is the method of comparative sources?

4PPAA_11 M. Rausch, M. Kaltenbacher, L. Kreitmeier, G. Krump, H. Landes, R. Lerch
Designing electrodynamic loudspeakers by using a new computer modeling scheme

(no paper) Acoustic photo- and cinematography based on interference transformation

4PPAA_13 Paulo Henrique Trombetta Zannin
Some aspects of scattering calculation using the source simulation technique (Poster)

4PPAA_14 Bronisław Żółtogórski, Andrzej Dobrucki, Cecylia Szmal
Numerical modelling of axisymmetric sources in infinite baffle (Poster)

4pPAb Physical Acoustics: Measurement and Evaluation of Ultrasound II

- 4PPAB__1 Michael Glinka**
Calibration of contact transducers by means of thermoacoustic sensors
- 4PPAB__2 Tarek Boutkedjirt, Rainer Reibold**
Improvement of the lateral resolution of finite-size hydrophones
- (no paper) [cancelled; discussion or break]
- 4PPAB__4 Ping Wu, Tadeusz Stepinski**
Investigation of effective geometrical parameters for a pulse-echo linear array with a cylindrically curved, focusing surface
- (no paper) Characterization of an ultrasound system
- (no paper) A unified linear system approach to ultrasonic radiation from a baffled transducer
- (no paper) Application of a fibre-optical probe hydrophone for in vivo measurements of therapeutical ultrasound
- (no paper) Fiber-optic dielectric multilayer hydrophone for ultrasound detection
- 4PPAB__9 Jens Hald, Irina Bjørnø, Leif Bjørnø**
Ultrasound cleaning of microfilters
- 4PPAB_10 Sylvain Poggi, Bruno Gazengel, Jean-Christophe Valière, Anne-Marie Bruneau**
Laser Doppler velocimetry applied to airborne acoustics: Influence of the signal processing parameters (Poster)
- (no paper) Acoustoelectric effect in gas sensor of the SAW type (Poster)
- (no paper) SAW sensor for low nitrogen dioxide concentration (Poster)

4pPac Physical Acoustics: Elastic Properties of Materials II: Special Materials

- (no paper) Effects of grain size and shape on ultrasonic attenuation and backscattering
- (no paper) Ultrasonic study of multi-ply composites
- (no paper) Integration of modeling and acoustic microscopy measurements for multiple layered coatings
- (no paper) Review of the method of reduced variables for the dynamic mechanical properties of viscoelastic materials
- (no paper) Ultrasonic anomalies in betaine phosphate/betaine phosphite mixed crystals
- (no paper) Ultrasonic absorption in concrete
- (no paper) Elastic wave propagation and scattering in heterogeneous anisotropic media: Textured polycrystalline materials
- (no paper) [cancelled; discussion or break]
- (no paper) Picosecond ultrasonics in gold nanoparticles

4PPAC_10 Voichita Bucur, Simone Garros
Ultrasonic waves birefringence in wood based composite panels

4PPAC_11 Stéphane Rigobert, Franck Sgard, Nouredine Atalla
Investigation of dissipative effects in a poroelastic plate

4pPPa Psychological and Physiological Acoustics: Hearing Impairment, Hearing Instruments, and Cochlear Implants

(no paper) Contribution of reduced audibility to subnormal localization performance in hearing-impaired listeners

(no paper) Method of measuring and preventing unstable feedback in hearing aids

(no paper) [cancelled; discussion or break]

4PPA__4 Astrid van Wieringen, Jan Wouters Gap detection thresholds of LAURA cochlear implant users for complex patterns of stimulation

(no paper) Two-microphone noise reduction for the LAURA cochlear implant

(no paper) Efficiency of a medical treatment of the acoust trauma following impulse noise exposure in the guinea pig

4pPPb Psychological and Physiological Acoustics: Human Factors (Poster Session)

(no paper) [cancelled] (Poster)

4PPPB__2 Etienne Parizet, Valery Nosulenko
Construction of a minimal set of sound parameters for multi-dimensional tests (Poster)

4PPPB__3 Michael A. Bellmann, Volker Mellert, Carsten Reckhardt, Hermann Remmers
Perception of sound and vibration at low frequencies (Poster)

(no paper) Development and evaluation of an adaptive loudness scaling procedure (Poster)

4PPPB__5 M. Vormann, J. L. Verhey, V. Mellert, A. Schick
Factors influencing the subjective rating of tonal components in noise (Poster)

(no paper) Effects of a neoprene wetsuit hood on low frequency underwater hearing thresholds (Poster)

(no paper) Estimates of the instantaneous versus overall loudness of noise immissions (Poster)

(no paper) On the use of auditory information in human movement control (Poster)

4PPPB__9 Dietrich Parlitz, Marc Bangert
Short and medium motor responses to auditory pitch shift: Latency measurements of the professional musician's audio-motor loop for intonation (Poster)

4pSAa Structural Acoustics and Vibration: Smart Materials II

(no paper) Zonal and global control of structural intensity in an infinite elastic plate

4PSAA__2 M. J. Brennan, J. Dayou
A comparison between active and semi-active global vibration control of structures

(no paper) Compact, inexpensive analog robust controller modules for cabin noise control

4PSAA__4 Matthias Fischer, Sabih I. Hayek
Active control of structural and acoustic intensities in a submerged elastic plate

4PSAA__5 Kenneth Eure, Jer-Nan Juang, Richard Silcox
Direct adaptive generalized predictive control using gradient descent

4pSAb Structural Acoustics and Vibration: International Workshop on Active Noise and Vibration Control - - Other Applications of Active Control

- (no paper) Unsteady dynamics and control of marine thrusters
- 4PSAB__2 Georg E. Ottesen**
Active noise reduction in an ear terminal
- (no paper) The Plymouth Prowler, active noise control exhaust system, Part 1 Noise reduction
- (no paper) The Plymouth Prowler, active noise control exhaust system, Part 2 Noise shaping
- (no paper) Design considerations for a low impedance loudspeaker in active noise control exhaust systems
- 4PSAB__6 M. Trimpop, D. Krahé**
Contemplations about the numeric transposition of the generalised Kirchhoff integral with the intention of active noise reduction
- 4PSAB__7 Dieter Guicking, Patrick Michaelis**
Self-adaptive absorber of underwater sound with electrorheological fluid
- 4PSAB__8 Leonardo Lecce, Massimo Viscardi, Bruno Maja, Vincenzo Limone, Mario D'Ischia, Francesco Di Maso**
Active noise control within the generating/pumping group of a large hydroelectric plant
- 4PSAB__9 Zbigniew Ogonowski**
Sound reflex compensation in active noise control
- (no paper) Active volume sound absorber

4pSCa Speech Communication: Parameters of F0

4PSCA__1 Hansjörg Mixdorff, Dieter Mehnert, Diane Hirschfeld
Comparing the naturalness of several approaches for generating F0 contours in German text-to-speech systems

(no paper) Quantifying correlations in pitch- and amplitude contours

(no paper) Influences of various factors upon parameters of the command-response model for fundamental frequency contour generation

4PSCA__4 Hiroya Fujisaki, Sumio Ohno
Application of the command-response model to the analysis, interpretation and synthesis of fundamental frequency contours of speech of various languages

(no paper) Iconic prosody and information in spontaneous oral narrative

(no paper) [cancelled; discussion or break]

(no paper) Changes of voice parameters and melody patterns during the first year of life in human twins

(no paper) On the waveforms and spectra of glottal flow models

4PSCA__9 Nicholas Kibre
Analysis of pitch accent categories in Welsh

(no paper) Empirical eigenfunctions obtained from highspeed imaging of the vocal folds

4PSCA_11 Chao-Min Wu, Jianwu Dang, Kiyoshi Honda
A design of laryngeal structures for a physiological articulatory model

4pSCb Speech Communication and Psychological and Physiological Acoustics: Models of Speech Processing in the Auditory Pathway

- (no paper) Time interval information in the auditory representation of speech sound
- (no paper) On temporal smoothing and speech perception
- (no paper) Modeling speech intelligibility and quality on the basis of the "effective" signal processing in the auditory system

4PSCB__4 Gerald Langner, Ulrich Biebel, Susanne Braun Spatial aspects of periodicity processing in the Inferior Colliculus of gerbil and chinchilla

- (no paper) discussion
- (no paper) The representation of spectrally dynamic signals in primary auditory cortex
- (no paper) Representation of consonant-vowel syllables in mammalian auditory cortex: Effects of background noise and speaking rate
- (no paper) Magnetoencephalographic evidence for temporal representations in human auditory cortex
- (no paper) An oscillatory correlation framework for the separation of speech from interfering sounds

4PSCB__9 Neil P. McAngus Todd Towards a computational neurobiology of speech perception

- (no paper) discussion

4pSP Signal Processing in Acoustics: Acoustic Signal Processing for Systems with 2D/3D Sensor Arrays II

- (no paper) Robust matched field processing in underwater acoustics
- (no paper) Phase conjugation and matched field processing
- 4PSP__3 U. Hoelscher-Hoebing, D. Kraus**
Optimized image processing for multi-beam/multi-aspect sidescan sonar application
- 4PSP__4 Nai-chyuan (Nate) Yen**
Signal processing algorithm for sound source localization with discretionary distributed multiple receiving sensors
- (no paper) Optimal amplitude shading for arrays of irregularly spaced or non-coplanar elements
- (no paper) Localization of the sources using blind identification of signal subspace
- 4PSP__7 Kenbu Teramoto, Noriko Mori**
Blind source separation by convex optimization for resolution enhancement
- 4PSP__8 Joon-il Song, Han-Su Kim, Jun-Seok Lim, Koeng-Mo Sung**
Forward/backward first order statistics algorithm for the estimation of DOA in a multi-path environment
- 4PSP__9 Han-Su Kim, Jun-Suk Lim, Koeng-Mo Sung**
Robust Kalman based DOA estimator with variable fading memory
- (no paper) Frequency-angle selectivity under conditions of 3D antenna motion
- 4PSP__11 Sang-Wook Lee, Jun-Seok Lim, Byung-Doo Jun, Koeng-Mo Sung**
Estimation of time-varying signal parameters via VFM Kalman filtering
- 4PSP__12 Charles F. Gaumont**
Coupling criteria for arrays in a channel

4pUW Underwater Acoustics: Shallow Water

- (no paper) High-resolution modal mapping in a complex shallow water environment
- (no paper) Broadband inversion of shallow water range-dependent acoustic data using a genetic algorithm
- 4PUW__3 John E. Laliberte, Gopu R. Potty, James H. Miller**
Analysis of modal dispersion in the Middle Atlantic Bight
- (no paper) Effects of the time varying ocean on broadband propagation in shallow water
- (no paper) The influence of internal waves on signal fluctuation in Yellow Sea
- (no paper) Acoustic intensity and phase variability caused by time-evolving internal wave fields
- 4PUW__7 Jin Yan, Renhe Zhang, Zhenge Sun**
Characteristics of the internal waves and their effects on sound propagation in the central area of the Yellow Sea
- (no paper) Temporal coherence of broadband acoustic signals in the presence of internal waves in shallow water
- (no paper) A look at the modal phase structure function in shallow water
- 4PUW__10 Renhe Zhang, Fenghua Li**
Sound vertical coherence in shallow water with a thermocline
- (no paper) Mode diffusion and pulse broadening in shallow water acoustic propagation
- (no paper) Effects of internal waves and bores on acoustic transmissions in the Strait of Gibraltar
- (no paper) High frequency acoustic propagation measurements in coastal areas (Poster)
- 4PUW__14 Fenghua Li, Renhe Zhang**
Normal mode propagation through strong range-dependent shallow water (Poster)
- 4PUW__15 Jacek Gawrysiak**
Analysis of active hydroacoustic system's parameters versus conditions of sound propagation in inland water (Poster)
- 4PUW__16 Sergei N. Gurbatov, Maxim V. Gushchin, Sergei A. Egorychev, Vasily V. Kurin, Leonid M. Kustov, Nikolai V. Pronchatov-Rubtsov**
On the horizontal structure of a field in separate modes radiated by a parametric antenna in axially nonuniform acoustic waveguides (Poster)
- (no paper) Effect of seismic waves on the acoustic field interference structure in the shallow sea (Poster)

5a - FRIDAY MORNING, 19 MARCH 1999

5aAA Architectural Acoustics: Building Acoustics II: Reverberation, Absorption and Scattering

- 5AAA__1** **Higini Arau**
The anecoicity phenomenon in a live room
- 5AAA__2** **Hiroyuki Sakai, Shozo Shibata, Yoichi Ando**
Orthogonal acoustical factors of sound fields in a bamboo forest
- (no paper) A refined room acoustical simulation algorithm based on free path distribution
- (no paper) Performing room surfaces effects on the acoustical conditions distribution
- (no paper) Reverberation in rectangular long enclosures with diffusely reflecting boundaries
- 5AAA__6** **C. Fillol, C. Legros, J. Štěpánek**
The genetic algorithms for the optimization of distributed loudspeaker systems
- 5AAA__7** **Rolf Tore Randeberg, Ulf Rikard Kristiansen, Tor Erik Vigran**
A Helmholtz resonator with elongated orifice
- (no paper) A seamless absorbing ceiling with a smooth surface: Alvaro
- 5AAA__9** **Manabu Tanaka, Daiji Takahashi**
Effect of plate vibration on sound absorption of the micro-perforated elastic plate
- 5AAA__10** **J. Pfretzschner, F. Simón, R. M. Rodríguez, C. de la Colina**
Simplified calculus to estimate the acoustical absorption of non-planar materials
- 5AAA__11** **Jan Baan, Diemer de Vries**
Reflection and diffraction in roomacoustic modeling
- (no paper) [cancelled; discussion or break]
- 5AAA__13** **Olivier Legrand, Fabrice Mortessagne**
High frequency asymptotics and random matrix theory in reverberant rooms (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) An extension of the transfer function method described in ASTM E 1050-90 for its use in semianechoic conditions (Poster)
- (no paper) Towards a global in situ method for materials acoustic impedance assessment at very low frequencies using evolution strategy (Poster)
- (no paper) Sound absorption properties of suspended ceilings with plastic foils (Poster)

5aAB Animal Bioacoustics: Animal Bioacoustics (Poster Session)

- 5AAB__1 Magnus Wahlberg**
Positioning accuracy of a large-aperture hydrophone array for sperm whale research (Poster)
- (no paper) Analysis of the sound emissions of captive bottlenose dolphins (*Tursiops truncatus*) (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) Perception of harmonic complexes in budgerigars (*Melopsittacus undulatus*) (Poster)
- (no paper) Frequency discrimination and advertisement call in the aquatic clawed frog *Xenopus l. laevis*:
Qualification for interindividual recognition (Poster)
- 5AAB__8 N. Ramsauer, D. Robert**
Acoustic attraction of the parasitoid fly *Ormia ochracea* to the song of its host (Poster)
- (no paper) Sound-induced cuticular vibrations in the atympanate bladder grasshopper *Bullacris membracioides* (Poster)
- 5AAB__10 D. Robert, R. N. Miles, R. R. Hoy**
Anatomy and biomechanics of interaural coupling in a sarcophagid fly (Poster)
- (no paper) [cancelled] (Poster)
- 5AAB__12 Evelyn B. Glaser**
Sound propagation in natural environments (Poster)
- 5AAB__13 Martin C. Göpfert, Daniel Robert**
Mosquito bioacoustics: Microscanning laser vibrometry of sound-induced antennal vibrations (Poster)
- (no paper) The detection of conspecific and heterospecific calls in noise by birds (Poster)

5aAO Acoustical Oceanography: Coastal Pollution Research and Monitoring

(no paper) Acoustical measurements in marine environmental monitoring and research in the United States

(no paper) Acoustics tools for ocean pollution research and monitoring in the MAST program

5AAO___3 Dominique Morisset Low frequency active sonar systems as tools for shallow water environmental monitoring

(no paper) A hybrid model for echo prediction in coastal waters

(no paper) Detecting, mapping, sampling and analyzing oceanic suspended particulate matter: Methods complementary to acoustic detection of environmentally sensitive ocean outfall and dumped materials

(no paper) Measurements of nearbed current flow and suspended sediments using acoustics

(no paper) [cancelled; discussion or break]

(no paper) Recent advances in coastal ocean pollution research and monitoring

5aBB Biomedical Ultrasound/Bioresponse to Vibration: Safety Guidelines for Diagnostic Ultrasound

5ABB__1

Hans-Dieter Rott

European committee for medical ultrasonic safety (ECMUS): Tasks and activities

- (no paper) Temperature elevation generated by ultrasound in soft-tissue, bone, and transcranial phantoms
- (no paper) Thermal test objects and the measurement of temperature rise produced by diagnostic ultrasound
- (no paper) ICRU Report 61: providing reference data for tissue properties
- (no paper) Fundamentals of the mechanical index and caveats in its application
- (no paper) Ultrasonically induced vascular damage to mouse intestine
- (no paper) Thermal safety considerations for diagnostic ultrasound
- (no paper) Mechanical index: the influence of nonlinear propagation in water and tissue

5ABB__9

Francis A. Duck, Hazel C. Starritt

Boundaries to effective acoustic output regulation from acoustic saturation

- (no paper) [cancelled; discussion or break]
- (no paper) The Future Direction of Safety Standards (discussion)

5aEA Engineering Acoustics: SAW Devices

- (no paper) Surface acoustic waves and devices-A brief overview
- (no paper) Surface acoustic wave sensors for the detection of gases and for biological applications
- (no paper) Radio-frequency SAW filters for mobile communications systems
- (no paper) [cancelled; discussion or break]
- 5AEA__5 V. I. Anisimkin, A. Bonfiglio, C. Caliendo, M. Penza, E. Verona**
Humidity sensing properties of uncoated and coated SAW delay lines

5aMUa Musical Acoustics: General Topics in Musical Acoustics I

(no paper) Sound power of musical instruments measured with sound intensity in a practice room

(no paper) Data-driven modeling of acoustical instruments

5AMUA__3 Magdalena Klapper-Rybicka Application of linear predictive coding and additive synthesis in computer music

(no paper) [cancelled; discussion or break]

(no paper) Measurements of arm motion, timing and striking force in a simple drumming task

(no paper) A tale of three violins: Comparison of radiation mechanisms measured with near-field acoustic holography

5aMUB Musical Acoustics: General Topics in Musical Acoustics II (Poster Session)

- (no paper) [cancelled] (Poster)
- (no paper) The acoustic analysis of reinforced harmonics (Poster)
- 5AMUB__3 Petr Volný, Jan Štěpánek, Václav Syrový**
Time relations between violin tone harmonics in relation to playing techniques (Poster)
- 5AMUB__4 Ondřej Moravec, Jan Štěpánek, Václav Syrový**
Harmonic and unharmonic components of violin tones in relation to playing techniques (Poster)
- 5AMUB__5 Jan Štěpánek, Zdeněk Otčenášek, Alois Melka**
Comparison of five perceptual timbre spaces of violin tones of different pitches (Poster)
- 5AMUB__6 Helmut Fleischer**
Diagnosing dead spots of electric guitars and basses by measuring the mechanical conductance (Poster)
- 5AMUB__7 Zdeněk Otčenášek, Václav Syrový**
Directivity of violin radiation (Poster)
- (no paper) Recent results on "unison quality" or finding objective and quantitative criteria to decide that a piano is perfectly tuned (Poster)
- 5AMUB__9 Hrvoje Domitrović, Mladen Maletić, Siniša Fajt**
Space-induced distortion of starting transient of musical sound (Poster)
- (no paper) Jazz drummers' swing ratio in relation to tempo (Poster)
- (no paper) Emotions in the singing voice: Acoustic cues for joy, fear, anger and sadness (Poster)
- 5AMUB_12 George Papadelis, George Papanikolaou**
Effect of timing variations on the categorical perception of musical rhythm patterns (Poster)
- 5AMUB_13 Markus Sapp, Jörg Becker, Claas Brouër**
Simulation of vacuum-tube amplifiers (Poster)
- (no paper) [cancelled] (Poster)
- 5AMUB_15 Emil Rajčan, Marek Sedliak, Stanislav Urgela**
Physico-acoustical properties of imission affected resonance spruce wood (Poster)

5aNSa Noise: Power Plant Noise

- (no paper) Prospects for active noise control in power plans
- (no paper) Modern methods for attenuation in ductwork and silencers
- (no paper) Turbine exhaust noise radiated by stack walls and tops
- (no paper) Limiting technology for combustion turbine power plants - How quiet can we make them?
- 5ANSA__5 Ulrich Scholz**
Feasibility of meeting a limit of 85 dB(A) everywhere inside a power plant
- (no paper) Noise control as a revenue enhancer
- 5ANSA__7 Sergio C. Martinez**
How to distinguish accurately between industrial and traffic noise? New statistical methods for the acquisition and evaluation of data
- (no paper) Measurement methodology for sound power levels of industrial noise sources (Poster)

5aNSb Noise: Road Traffic Noise I

- 5ANSB__1 Reiner Stenschke, Michael Jäcker-Cüppers**
Reduction of road traffic noise - The legislature's point of view
- (no paper) How to reduce tire/road noise: Chances and limits
- (no paper) A spatial analysis of topographic and vegetation factors affecting the propagation of highway traffic noise
- 5ANSB__4 N. Barrière, Y. Gabillet**
Prediction of traffic noise control by forests using a three dimensional Green's fast parabolic equation model
- 5ANSB__5 B. Gauvreau, M. Bérengier, Ph. Blanc-Benon, C. Depollier**
A numerical method to predict sound propagation for realistic road environments
- 5ANSB__6 Gaetano Licitra, Mauro Cerchiai, Silvia Canessa**
SimNoise: A new low traffic flow road noise estimation by a statistical approach
- (no paper) A theoretical tyre model based on the general field equations
- 5ANSB__8 A. I. El Mallawany, M. I. Abdallah, M. Abd El Gawad Saif**
Modeling of traffic noise pollution with neural networks
- (no paper) [cancelled; discussion or break]
- 5ANSB_10 Ernst-Ulrich Saemann, Jørgen Hald, Andreas P. Schuhmacher**
Sound field studies of tires
- 5ANSB_11 Siegfried Ullrich**
Low-noise road surfaces in the Federal Republic of Germany - State of the art -

5aPAa Physical Acoustics: Radiation and Relaxation

(no paper) [cancelled; discussion or break]

(no paper) Moment method calculation of radiation from a cylindrical tube with an infinite flange

**5APAA__3 R. Lyons, P. C. Macey, J. L. Horner
Acoustic performance of finite length apertures using finite element analysis**

**5APAA__4 Bogumił B.J. Linde, Nikolai B. Lezhnev
Influence of the frequency range broadening for the value of the acoustic vibrational
relaxation time**

**5APAA__5 Vladimir Larichev, German Maksimov
Universal local state equation for description of exponential and resonant relaxation at sound
wave propagation**

**5APAA__6 Vladimir Larichev, German Maksimov
Propagation of short acoustic pulse in medium with two relaxation processes. Exact solution**

5aPAb Physical Acoustics: Acoustic Remote Sensing of the Atmosphere I

- 5APAB__1 Margarita A. Kallistratova**
Current progress and problems in the atmospheric acoustics
- (no paper) Scattering of sound in a stratified moving atmosphere
- 5APAB__3 Nikolai Krasnenko**
Advances in acoustic remote sensing of the atmosphere at the IAO SB RAS
- 5APAB__4 Sergey N. Kulichkov**
On acoustic sounding of fine structure of the middle atmosphere
- 5APAB__5 Philippe Blanc-Benon, Daniel Juvé**
Dislocations in the wavefront of acoustic waves propagating through thermal turbulent fields

5aPac Physical Acoustics: Elastic Properties of Materials III: Piezoelectrics, Plates, and Shells

- 5APAC__1 Ramute Giriuniene, E. Garshka**
Acoustoelectric sensing and actuating of physico-chemical processes by SAW
- 5APAC__2 Eugene J. Danicki**
Piezoelectric interfacial waves in directions of vanishing slowness curvature
- 5APAC__3 Stéphane Pouyez, Robert Hazebrouck**
Application of the piezoelectric implant method to study the frost phase in frozen porous media
- 5APAC__4 Arnaud Bernard, Marc Deschamps, Mike Lowe**
The energy velocity of attenuating guided ultrasonic waves in plates
- 5APAC__5 Arnaud Guillet, Mounsif Ech-Cherif El Kettani, Francine Luppé**
Guided waves propagation in an elastic plate of linearly varying thickness
- 5APAC__6 Y. Kagawa, T. Fujitani, T. Tsuchiya**
Transmission-line matrix (TLM) modeling of an elastic wave propagation
- 5APAC__7 Francisco J. Nieves, Francisco Gascón, Ana Bayón**
Direct measurement of dynamic elastic constants of a disc
- (no paper) Investigation of thin film shear modulus from spatially resolved measurement of Love wave velocity
- (no paper) Vibration response of perforated thin plates
- (no paper) Acoustic waves transmission through elastic cylindrical shell and investigation of its parameters
- 5APAC_11 M. Rath, J. Döring, W. Stark, G. Hinrichsen**
Inline process monitoring of thermosets by ultrasonic measurements in a compression mould (Poster)
- (no paper) Accurate noncontact measurement of elastic properties of ceramics using acoustic microscopy and laser ultrasonics (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) [cancelled] (Poster)

5aPPa Psychological and Physiological Acoustics: Binaural Hearing--Models, Movement and Measures

- (no paper) The normalized correlation: Accounting for NoS thresholds with Gaussian and "low noise" masking noise
- (no paper) Should normalization be included in cross-correlation based models of binaural processing?
- 5APPA__3 Edward Ozimek, Jacek Konieczny, Andrzej Wicher**
Dichotic perception of AM and FM signals
- 5APPA__4 Makio Kashino**
Interaction in the perceived lateralization of two sounds having different interaural time differences
- (no paper) Virtual auditory localization in noise
- (no paper) Investigating the precedence effect with a virtual auditory environment
- 5APPA__7 Philip Mackensen, Uwe Felderhoff, Günther Theile, Ulrich Horbach, Renato Pellegrini**
Binaural room scanning - A new tool for acoustic and psychoacoustic research
- (no paper) Minimum audible movement angle in vertical, horizontal, and oblique planes: Effects of velocity and frequency content
- (no paper) Marking the starting and ending points of auditory apparent motion: Effect of timing, spatial separation, and azimuth
- (no paper) Changes in perceived velocity following adaptation to simulated auditory motion
- (no paper) Effects of the spatial distribution of competing sounds on speech reception thresholds
- 5APPA_12 Juerg M. Stettbacher**
Audiometry for binaural hearing

5aPPb Psychological and Physiological Acoustics: Hearing Impairment I (Poster Session)

- 5APPB__1 M. Patrick Feeney, Douglas H. Keefe, Kristen L. Smith**
A comparison of power-based and admittance measures of the acoustic reflex threshold (Poster)
- (no paper) Performance of children on the multisyllabic lexical neighborhood test as a function of the number of channels of stimulation (Poster)
- (no paper) Temporal jitter disrupts speech intelligibility: Simulations of auditory aging (Poster)
- (no paper) Rupture pressures of membranes in the ear (Poster)
- 5APPB__5 H. Skarżyński, A. Czyżewski, B. Kostek**
Prediction of post-operative profits in cochlear implanted people using electrical stimulation test results (Poster)
- (no paper) The impact of placement of noise sources on directional hearing aid benefit (Poster)

5aPPc Psychological and Physiological Acoustics: Hearing Impairment II (Poster Session)

(no paper) Communication problems in noisy workplaces for normal hearing and hearing impaired employees (Poster)

(no paper) Effects of selective serotonin reuptake inhibitors on auditory processing (Poster)

5APPC__3 Norimichi Kitagawa
The changing-loudness aftereffect following adaptation to visual motion in depth (Poster)

(no paper) Classification of the acoustic environments using a psychoacoustic model (Poster)

(no paper) On the relationship between auditory evoked potentials and psychophysical loudness (Poster)

(no paper) Conductive hearing losses caused by static pressure differences in the ear (Poster)

5aSAa Structural Acoustics and Vibration: Vibrations of Complex Structures

5ASAA__1 Qiushuang Guo, David A. Brown
Determination of acoustic constants from flexural waves in thin bars

(no paper) [cancelled; discussion or break]

5ASAA__3 S. Finnveden
Sea of coupled oscillators

(no paper) A clamped beam, images solution

(no paper) Modal overlap and dissipation effects in a fuzzy structure containing a continuous master element

(no paper) Reflection and transmission at an attachment half-space

(no paper) Localized modes of long floating structures

(no paper) Elastic wave scattering on a rod-like inclusion

(no paper) A boundary controller for realistic double panel partitions: Feasibility and experimental validity

(no paper) [cancelled; discussion or break]

(no paper) On the acoustical properties of cylindrical shells and pipe sleeves

5aSAb Structural Acoustics and Vibration: International Workshop on Active Noise and Vibration Control - - Active Control in Aircraft Engines

- (no paper) On overview of the fan active noise control effort at NASA Lewis
- (no paper) [cancelled; discussion or break]
- (no paper) A model concept for active noise control in circular or annular ducts
- (no paper) Active flow control using MEMS actuators to reduce fan noise
- (no paper) Active cancellation of rotor/stator interaction tones in turbofan engines

5ASAB__6 L. Tardy, E. Gonneau, J. P. Guilhot
Comparison of two algorithms for modal active control of fan noise in a duct

5aSCa Speech Communication: New Spectral Analysis Techniques for Speech

- 5ASCA__1 Shubha Kadambe**
Adaptive wavelets and their application
- (no paper) Data driven speech analysis for ASR
- (no paper) discussion
- (no paper) Crime detection automatic speaker verification and identification (CASVI) system
- (no paper) Revisiting analysis by synthesis
- (no paper) Speech visualization with auditory contours
- 5ASCA__7 Jinlin Lu, Satoshi Nakamura, Kiyohiro Shikano**
Spectral analysis of esophageal speech
- (no paper) Comparing alternate representations of acoustic properties in vowel perception
- (no paper) discussion

5aSCb Speech Communication: Speech Production Issues

5ASCB__1 H. Betty Kollia, Jay Jorgenson Maximum likelihood methodology applied to probability distributions of speech movement data

- (no paper) Emphasized vs. unemphasized /aJ/: jaw, tongue and formants
- (no paper) Control of oral closure in stop consonants with different closure durations
- (no paper) Coarticulation of tongue and jaw movements in speech
- (no paper) Effects of lip protrusion on measurements of lip aperture

5ASCB__6 Niels O. Schiller No role for syllables in English speech production

- (no paper) Two kinematic models of the human tongue from MRI data

5ASCB__8 M. Wakumoto, S. Masaki, K. Honda, N. Kusakawa, T. Ohue Integration of 3-dimensional and pressure sensitive palatography for speech production study

- (no paper) Tongue-jaw trade offs and naturally occurring perturbation
- (no paper) [cancelled; discussion or break]
- (no paper) Adjustments in kinematic parameters of bilabial articulatory gestures during repeated oral readings of the same passage
- (no paper) Simulation of token to token variability in vowel production

5aSPa Signal Processing in Acoustics: Acoustics in Multimedia

(no paper) [cancelled; discussion or break]

(no paper) Cognitive theories of musical meaning

(no paper) [cancelled; discussion or break]

(no paper) A novel computing structure for 3D audio rendering with multiple sources

(no paper) Challenges facing 3D audio display design for multimedia

5ASPA__6 Thomas Funkhouser, Ingrid Carlbom, Gary Elko, Gopal Pingali, Mohan Sondhi, Jim West
Interactive acoustic modeling of complex environments

(no paper) Multi-channel subband inverse filtering for room dereverberation

(no paper) Echo cancellation for multimedia applications

5ASPA__9 Noël Chateau
Contribution of perceived audio-visual spatial fusion to subjective audio-visual quality

5ASPA_10 Bożena Kostek, Piotr Suchomski
Multimedia database of musical instrument sounds

5ASPA_11 Holger Pastillé
An approach to analyze the linear movement of condenser microphone membranes

(no paper) Development of a multiprocessor system (HUGO) for acoustic applications

5aSPb Signal Processing in Acoustics and Engineering Acoustics: General Signal Processing in Acoustics

- (no paper) Practical aspects of analyzing cyclostationary noise emitted by real acoustic sources
- 5ASPB__2 Wolfgang Klippel**
Measurement of loudspeaker parameters by inverse nonlinear control
- 5ASPB__3 Alain Dufaux, Laurent Besacier, Michael Ansorge, Fausto Pellandini**
Automatic detection and classification of wideband acoustic signals
- 5ASPB__4 Robert Henke, Eva Wilk**
Algorithms for modeling nonlinear geometric distortion of vinyl records
- 5ASPB__5 P. Lasaygues, J. P. Lefebvre, S. Mensah**
Ultrasonic reflection tomography: Signal processing and resolution
- (no paper) Application of ultrasound reflection tomography for non-destructive evaluation of objects with a complex geometry
- 5ASPB__7 Tjundewo Lawu, Mitsuhiro Ueda**
Low-pass filter for DFT process and its application to impulse response of sound field and ultrasonic B-mode echo simulator

5aUWa Underwater Acoustics: Wave Propagation: Session in Honor of Leonid M. Brekhovskikh II

- | | |
|------------|---|
| (no paper) | Signal coherence and energy effects of propagating internal solitary wave packets |
| (no paper) | [cancelled; discussion or break] |
| (no paper) | Sensitivity analysis of the acoustic field in shallow water to environmental parameters |
| (no paper) | Role of acoustics in oceanographic monitoring of the Arctic ocean |
| (no paper) | On the adiabaticity of acoustic propagation through non-gradual ocean structures |
| (no paper) | Wave propagation in the ocean with fine structure stratification |
| (no paper) | Coupling to SH as a loss mechanism in shallow water acoustic propagation |
| (no paper) | An energy conserving one-way coupled mode propagation model |
| (no paper) | Numerical simulation of time domain ocean acoustic propagation |
| (no paper) | Energy conserving and reciprocal solutions for high order parabolic equations |
| (no paper) | Sound propagation modeling with the enhanced ray theory in four dimensions |
| (no paper) | On the adiabatic normal modes in the 3D inhomogeneous waveguide |
| (no paper) | [cancelled] (Poster) |
| (no paper) | [cancelled] (Poster) |

5aUWb Underwater Acoustics and Signal Processing in Acoustics: Underwater Communication and Signal Processing

(no paper) First results from an acoustic-communication transmission model using 3D Gaussian beams and quadrature detection

(no paper) Examination of time reversal acoustics and applications to underwater communications

5AUWB__3 Gérard Loubet, Bernard Faure Characterization of the underwater channel for acoustic communications

(no paper) Telesonar channel estimation and adaptation

(no paper) Channel characterization using FSK waveforms

(no paper) Improved reliability and data rates for AUV acoustic communications

(no paper) Statistics governed channel simulation

5AUWB__8 Azizul H. Quazi, Richard A. Katz Information theoretic/chaotic sonar signal processing

(no paper) Colored-noise performance of the order-truncate-average ratio (OTAR) filter

(no paper) [cancelled; discussion or break]

(no paper) Identification of the radiating sources in underwater acoustics (Poster)

5AUWB_12 Suzanne Richardson, Charles Loeffler 3-D auditory display of passive sonar data (Poster)

5p - FRIDAY AFTERNOON, 19 MARCH 1999

5pAA **Architectural Acoustics: Building Acoustics III: Acoustical Measurements**

- 5PAA__1 Hiroyuki Okubo, Masamichi Otani, Ryo Ikezawa, Setsu Komiyama**
A system for measuring the directional parameters of room acoustics
- 5PAA__2 Mladen Maletić, Hrvoje Domitrović, Ivan Djurek**
Frequency response measurement with composed audio test signal
- 5PAA__3 Diemer de Vries, Jan Baan**
Fluctuation of roomacoustical parameters on small spatial intervals
- (no paper) Influence of time-variance on room impulse response measurement
- (no paper) Time variances with MLS technique: Theoretical considerations concerning rotating microphones in building acoustics
- (no paper) [cancelled; discussion or break]
- 5PAA__7 Masatsugu Sakurai, Shinichi Aizawa, Yoichi Ando**
An internet-oriented system for acoustic measurements of sound fields
- 5PAA__8 Jörg Becker, Markus Sapp, Oliver Schmitz**
Four-microphone-array measurement combined with geometrical room acoustic technique (Poster)
- (no paper) On the accuracy of the assessment of room acoustical parameters using MLS technique and ray-tracing simulation (Poster)

5pBB Biomedical Ultrasound/Bioresponse to Vibration: Low Intensity/Low Frequency Ultrasound

- (no paper) Therapeutic ultrasound-An historical overview
- (no paper) Enhancement of fibrinolysis by low-intensity c.w. ultrasound
- 5PBB__3 O. D. Kripfgans, J. B. Fowlkes, D. L. Miller, O. P. Eldevik, K. A. Frey, P. L. Carson**
Ultrasonic induced phase transitions of micrometer size droplets
- 5PBB__4 Algirdas Voleišis, Rymantas J. Kažys, Liudas Mažeika, Reimondas Šlitteris, Birutė Voleišienė**
Ultrasonic technique for the investigation of structural properties of biological fluids
- (no paper) Are there gas cavities in red blood cells?
- 5PBB__6 Waldemar Lis, Roman Salamon, Józef Zienkiewicz**
The acoustic system for investigation of the temporomandibular joint pathology
- 5PBB__7 Igor Zorić, Bojan Ivančević, Kristain Jambrošić**
The velocity of ultrasound propagation through brain tissue at low ultrasound frequencies
- (no paper) Modification of chamber resonance through active mass control

5pEA Engineering Acoustics: General

- 5PEA__1 Matti Airas, Antti Järvinen, Esa Piirilä**
Using tubephones for wideband auditory stimulation in brain research
- 5PEA__2 Robert Hoeldrich, Martin Pflueger**
A parameterized model of psychoacoustical roughness for objective vehicle noise quality evaluation
- 5PEA__3 Martin Pflueger, Robert Hoeldrich, Franz K. Brandl, Werner Biermayer**
Psychoacoustic measurement of roughness of vehicle interior noise
- (no paper) [cancelled; discussion or break]
- (no paper) [cancelled; discussion or break]
- (no paper) [cancelled; discussion or break]
- (no paper) A numerical and experimental investigation into the effects of cavity geometry on the production of cavity tones
- 5PEA__8 Ronald J. Epstein, Alan B. Cain, Anthony Leonard**
Hybrid discrete vortex method / boundary element method calculations for cavity acoustics
- (no paper) Sound power measurements at low frequencies
- (no paper) [cancelled; discussion or break]
- (no paper) [cancelled; discussion or break]
- 5PEA__12 Ronald M. Yannoni**
The powerful role of the commander's decision aid (CDA) software and acoustic sensor to increasing ground combat vehicle survivability
- 5PEA__13 Antonino Di Bella, Roberto Zecchin**
Multi-purpose apparatus for evaluation of noise transmitted through air ducts (Poster)

5pNSa Noise: Road Traffic Noise II

- (no paper) Perception and meaning of warning signals in urban contexts
- 5PNSA__2 Fülöp Augusztinovicz, Ferenc Márki, János Granát, Wim Hendricx, H. Van der Auweraer**
Extension of acoustic holography for tire noise investigations
- 5PNSA__3 David Casini, Cesare Fagotti, Andrea Poggi, Simone Secchi**
Measurements of the acoustic absorption coefficient of a double layer pavement - analysis of variability
- 5PNSA__4 Miguel Aloysio Sattler**
Assessment of noise impact determined by binary traffic systems
- 5PNSA__5 Christian Maschke**
Preventive medical limits for chronic traffic noise exposure
- 5PNSA__6 Ulrich Schober**
Standardization in the field of traffic noise - An overview of current projects
- 5PNSA__7 Jean-Pierre Clairbois, Peter Houtave, Andreas Köllmann, Gerhard Mosdzianowski**
Cadastre of the acoustic characteristics of the whole road network of the Brussels Region
- 5PNSA__8 Dietrich Heimann**
Modeling the propagation of traffic noise in topographically modified environments
- 5PNSA__9 Wolfgang Foken**
The effect of road features on the traffic noise - Prediction and Measurement
- 5PNSA_10 Joël Lelong, Roger Michelet**
Effect of acceleration on vehicle noise emission (Poster)

5pNSb Noise: Future Noise Policy in Europe

- (no paper) The new noise policy of the European Union
- (no paper) A European noise indicator
- (no paper) EU's future noise policy: Progress report of WG dose/effect
- (no paper) Harmonisation of computational and measurement methods for noise exposure in the European Union

5PNSB__5 John Hinton
A progress report on EC proposed noise mapping

5PNSB__6 Volker Irmer
A new EU directive concerning the noise emission by equipment used outdoors

5PNSB__7 Peter Hübner
The action programme of UIC, UIP and CER "abatement of railway noise emissions on goods trains"

5PNSB__8 D. Botteldooren, S. Decloedt, J. Bruyneel, S. Pottie
Characterisation of quiet areas: Subjective evaluation and sound level indices

5pPAa Physical Acoustics: Acoustic Remote Sensing of the Atmosphere II

- 5PPAA__1 Astrid Ziemann, Klaus Arnold, Armin Raabe**
Acoustic tomography as a remote sensing method inside the atmospheric surface layer
- 5PPAA__2 Lyudmila Shamanaeva**
Opto-acoustic sounding of the atmospheric parameters
- 5PPAA__3 Gerhard Peters**
Radio acoustic sounding of the planetary boundary layer
- (no paper) The application of SODAR and RASS configurations in operational meteorology
- 5PPAA__5 Lyudmila Shamanaeva, Sergei Shamanaev**
Acoustic sounding of fog and rain
- 5PPAA__6 Igor Chunchuzov, Sergey Kuchlikov**
Acoustic pulse sounding of the atmospheric boundary layer
- (no paper) Acoustic investigation of a vorticity filament using time reversal mirrors
- (no paper) Investigation of the effects of acoustic refraction on Doppler measurements caused by wind- and temperature profiles
- 5PPAA__9 Lyudmila Shamanaeva, Aleksandr Bogushevich**
Sodar-derived vertical profiles of the parameters of atmospheric turbulence
- (no paper) [cancelled; discussion or break]
- 5PPAA_11 K. Arnold, A. Ziemann, A. Raabe**
Experimental method of acoustic tomography inside the atmospheric surface layer

5pPAb Physical Acoustics: Sonochemistry

(no paper) Sonochemical synthesis of new materials

(no paper) On the frequency effect and the solvent effect in sonochemistry

5PPAB__3 Gareth J. Price
The production of free radical species in ultrasound fields

(no paper) Sonolysis of nitrophenol and nitrophenyl acetate in aqueous solution

5PPAB__5 Melanie Bradley, Muthupandian Ashokkumar, Franz Grieser
Sonoluminescence from water-ethylene glycol mixtures

(no paper) Bridging the gap between single and multi-bubble sonoluminescence

(no paper) [cancelled; discussion or break]

(no paper) Effect of crosslinking on dynamic mechanical properties of polyurethanes

5PPAB__9 Hui-Ming Hung, A. J. Colussi, Michael R. Hoffmann
Kinetic of halogenated organic compounds degradation by ultrasound

5pPac Physical Acoustics: Porous Media

- 5PPAC__1 Olga Umnova, Keith Attenborough, Kai Ming Li**
A coupled phase model for the acoustical properties of granular materials
- (no paper) Physics of acoustic-to-seismic coupling and detection of buried objects
- (no paper) [cancelled; discussion or break]
- (no paper) About Biot's theory and the acoustic propagation in aerogels
- 5PPAC__5 Alexei G. Moussatov, Christophe Ayrault, Bernard Castagnéde**
Influence of static pressure on ultrasound propagation in plastic foams
- 5PPAC__6 Z. E. A. Fella, B. Castagnéde, C. Depollier**
Propagation of an ultrasonic impulse in porous media having a rigid frame
- (no paper) Calorimetric measurements of losses in mineral wool
- (no paper) Anisotropy and sound propagation in glass wool
- (no paper) Measurement of ground impedance - Test of method
- (no paper) [cancelled; discussion or break]
- (no paper) Determination of porous material data via 2-port measurements
- (no paper) Acoustical signal attenuation, velocity and filtering by beach sand, with different water content
- 5PPAC_13 Andreas Blum, Ivo Flammer, Peter Germann**
Acoustic determination of water distribution in unsaturated soils (Poster)
- (no paper) Surface waves above thin porous layers and periodic structures (Poster)
- (no paper) Low frequency acoustic stimulation of fluid flow in porous media (Poster)
- 5PPAC_16 S. Sahraoui, M. Etchessahar, E. Mariez**
Damping modelization of acoustic foams at low frequency: Calculation of the air flow resistivity (Poster)

5pPAd Physical Acoustics and Noise: Outdoor Sound

(no paper) The eigenray method for rapidly estimating refraction effects in a linear profile atmosphere

5PPAD__2 Cora Cremezi, Claude Legros
Atmospheric sound propagation: Application to the case of aircraft landing and take off

(no paper) Long-range acoustic propagation in the nocturnal boundary layer

(no paper) [cancelled; discussion or break]

5PPAD__5 D. Keith Wilson, Calandra R. Tate, David C. Swanson, Karl M. Reichard
Acoustic scintillations induced by atmospheric turbulence, as imaged with a large planar vertical microphone array

(no paper) Sound propagation near the ground in a turbulent atmosphere

5PPAD__7 Branko Somek, Siniša Fajt, Hrvoje Domitrović
The high-power acoustical warning system

(no paper) Infrasound detector design for recording sonic booms and events of CTBT interest

(no paper) Wind induced infrasound in the atmosphere

5PPAD_10 Dieter Hohenwarter, Friedrich Jelinek
Snell's law of refraction for a moving medium

5pPPa Psychological and Physiological Acoustics: Pitch, Loudness and Frequency Effects

5PPPA_1 Hideki Iwasawa, Makio Kashino Adaptation to a two-component amplitude modulator

- (no paper) A privileged perceptual status for rising intensity tones
- (no paper) Effects of instantaneous phase shifts and gap duration on pitch of unresolved complex tones
- (no paper) Fundamental frequency discrimination: Influence of lateralized temporal fringes
- (no paper) Competition between space and time in the auditory system
- (no paper) Forgetting pitch and loudness
- (no paper) Loudness recalibration and complex tones
- (no paper) Is the auditory filter optimal?
- (no paper) Adaptive psychophysics based on unforced-choice tasks

5PPPA_10 Ingrid M. Noordhoek, Tammo Houtgast, Joost M. Festen Relation between speech intelligibility in noise and spread of masking for hearing-impaired listeners

5PPPA_11 Georges Canévet, Xavier Regal, Olivier Sauvage, Robert Teghtsoonian, Martha Teghtsoonian Magnitude estimation of auditory and visual signals with continuously decreasing level or size

- (no paper) [cancelled; discussion or break]

5pPPb Psychological and Physiological Acoustics: Binaural Processing, Cocktail Party Effects and Localization (Poster Session)

(no paper) Spectral integration in binaural processing (Poster)

(no paper) A cocktail party effect in the median plane? (Poster)

5PPPB__3 Takayuki Kawashima, Makio Kashino, Takao Sato Perceptual learning in the discrimination of interaural time differences (Poster)

(no paper) Measuring the role of masker-correlation uncertainty in binaural masking experiments (Poster)

(no paper) Modeling the role of masker-correlation uncertainty in binaural masking experiments (Poster)

(no paper) A priori knowledge of the sound source spectrum in median plan localization (Poster)

(no paper) Analysis of different pointing methods in localization experiments of sound sources (Poster)

(no paper) Localization experiments with saccadic responses in virtual auditory environments (Poster)

5pSAa Structural Acoustics and Vibration: Structural Vibration, Radiation and Scattering II

- 5PSAA__1 Sven Lindblad, Karl-Ola Lundberg**
The modulation direct field radius
- 5PSAA__2 Victor T. Grinchenko**
Eigenforms and eigenfrequency spectrum of finite elastic cylinder
- 5PSAA__3 Eric Landel, Patrick Blanc, Thierry Loyau**
Acoustic pressure radiated by a vibrating body in the high frequency domain
- (no paper) Finite panel sound radiation through an absorbent layer
- (no paper) Low frequency ($ka < 10$) monostatic scattering and elastic wave generation produced by end insonification of homogeneous, finite rods ($l/a=8$)
- 5PSAA__6 Karl-Ola Lundberg, Sven Lindblad**
The modulation direct field radius: Experiments
- (no paper) Broadband 3D high spatial density structural response measurements of a pair of framed air-loaded cylinders of differing internal complexity
- (no paper) Measurements of the condition of compliant coatings for prediction of acoustic performance
- 5PSAA__9 R. A. Fulford**
Analysis of structure-borne sound transmission using spatial statistical distributions
- 5PSAA_10 Andrzej Dobrucki, Bronisław Żółtogórski**
The influence of sound radiation on vibration of mechanical structures
- 5PSAA_11 N. Enescu, M. Bugaru, M. V. Predoi**
Acoustic emission model for a thin circular plate with large deflections
- 5PSAA_12 W. J. Rdzanek, Z. Engel, W. P. Rdzanek, Jr.**
The acoustic radiation power of a circular plate simply supported for axially-symmetric free vibrations

5pSAb Structural Acoustics and Vibration: International Workshop on Active Noise and Vibration Control - - Transducers for Active Noise and Vibration Control

(no paper) Novel electrostrictive poly(vinylidene fluoride-trifluoroethylene) copolymer actuators

(no paper) Cymbal-based actuator panels

5PSAB__3 Helmut Berger
Estimate of the radiated acoustical power using strain sensing

5PSAB__4 R. Bauer, P. Lotton, P. Hamery, A. Dancer
A new piezoelectric ANR (Active Noise Reduction) earplug

(no paper) Robust design of a sensorless bass-enhanced moving coil ANC actuator

(no paper) Magnetostrictive actuation and digital variable structure control for active noise and vibration cancellation

(no paper) Piezo actuators for active vibration control and isolation - Principles and practical experiences

5PSAB__8 Steffen Deus, Wolfgang Schatz
Test of various sound transducers for the use in ANC-systems and several applications of the ANC-system NANCY (Poster)

5pSCa Speech Communication: Speech Perception and Recognition (Poster Session)

- (no paper) Vowel recognition from harmonic spectra (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) Voiced-unvoiced classification for recognition of stop consonants (Poster)
- 5PSCA__4 Olivier Crouzet, Nicole Bacri**
Toward an attentional account of the involvement of phonotactical constraints in speech segmentation processes (Poster)
- (no paper) Burst spectra and place of articulation in read speech (Poster)
- 5PSCA__6 Corine Bickley**
Does "one hundred fifty five" mean 155 or 100,55 or 100, 5 or 1,155 or 100,50,5? (Poster)
- (no paper) The acoustic-front-end of the FUL speech recognition system (Poster)
- 5PSCA__8 Shahla Sehhati**
Inventory of the used "phonetic elements" (Poster)
- (no paper) [cancelled] (Poster)
- (no paper) The time course of lexical involvement in phonetic categorisation (Poster)
- (no paper) Use of temporal envelope cues for the recognition of words and phonologically-significant contrasts (Poster)
- (no paper) On the link between acoustic cue distributions and categorization dependencies (Poster)

5pSCb Speech Communication: Consonants and Vowels (Poster Session)

5PSCB__1 Peter M. Janker, Bernd Pompino-Marschall, Seadet Zeynalowa Variation in the pronunciation of German "ein_" (Poster)

- (no paper) [cancelled] (Poster)
- (no paper) Do harmonic consonant clusters in Georgian have only one release? (Poster)
- (no paper) Effect of frequency modulation of F0 on the accuracy of formant frequency matches (Poster)
- (no paper) Articulatory discriminability of vowels: Articulator and corpus effects (Poster)
- (no paper) Perceptual consequences of unintended epenthetic stops (Poster)
- (no paper) The relevance of F4 in distinguishing between different articulatory configurations of American English /r/ (Poster)
- (no paper) [cancelled] (Poster)

5PSCB__9 Bernd Pompino-Marschall, Peter M. Janker The perception of German syllabic [n] (Poster)

5PSCB_10 Frank Gooding Loudness and prominence in front vowels (Poster)

- (no paper) Adults' perception and production of the English vowel /i/ (Poster)

5PSCB_12 Anthony J. Watkins Reflection patterns and coloration of vowels (Poster)

- (no paper) Help or hindrance: How violation of different assimilation rules affects spoken language processing (Poster)
- (no paper) Perceptual properties of English fricatives (Poster)
- (no paper) Influence of frequency range in the perceptual recognition of fricatives (Poster)
- (no paper) Phonetic priming of features in a naming task (Poster)
- (no paper) Top-down influences on phonetic processing as a function of aging (Poster)
- (no paper) Speaking rate effects on vowel identification in natural sentence contexts (Poster)
- (no paper) Perceptual vowel spaces derived by computer game (Poster)

NATIONAL DAY - DAGA-TAG

Psychoakustik

DAGA__1 **Gerald Langner, Elisabeth Wallhäußer-Franke, Claudia Mahlke**
Physiological evidence for tinnitus generation in the central auditory system

(kein Beitrag) [Vortrag abgesagt]

DAGA__3 **Werner Vespermann**
Kriminelle psychoakustische Bedingungen in Hochschul-Auditorien behindern beim Lernen und bringen die Redner (akustisch) auf den Weg zum Eunuchen

Sprache

DAGA__4 **Gudrun Klasmeyer, Thomas Meier**
Rhythm in emotional speech

DAGA__5 **Astrid Paeschke, Miriam Kienast, Walter F. Sendlmeier**
F₀-Konturen bei emotionaler Sprechweise

DAGA__6 **Ralf Kern, Dieter Leckschat, Edgar Bolin, Uwe Schwark**
Untersuchungen des BLUETOOTH-CVSD-Sprachcoders im Vergleich zum DECT ADPCM-Sprachcoder (G.726)

DAGA__7 **Felix Burkhardt, Walter F. Sendlmeier**
Simulation des emotionalen Ausdrucks "Freude" mit Sprachsyntheseverfahren

Meßtechnik

DAGA__8 **Joachim Herbertz**
Zeigt der Schallpegelmesser den Pegel des Schalldruckes?

DAGA__9 **Karl-Heinz Pflaum, Stefano Klink, Dieter Leckschat**
Mikrofone mit ausgeprägten Richteigenschaften zum Einsatz unter Störschallbedingungen

Schienenverkehr

(kein Beitrag) Geräuschemissionen von Zugvorbeifahrten auf Festen Fahrbahnen

DAGA__11 **H.-J. Giesler**
Geräuschemissionen von Strassenbahnen

Thermodynamik

(kein Beitrag) [Vortrag abgesagt]

(kein Beitrag) [Vortrag abgesagt]

Raum- und Bauakustik

DAGA__14 **Carsten Bayer, Arild Lacroix**
Kopplung der Schwingungsmoden eines kreiszylindrischen Hohlraumresonators mit den Eigenschwingungen einer Membran

- DAGA__15** **R. Heitfeld, A. Jakob, M. Möser**
Aktive Verbesserung der Luftschalldämmung von kleinen Doppelfenstern
- DAGA__16** **W. Schirmer, D. Friedemann, L. Wiedemann**
Erfahrungen mit dem Trittschall-Kurzprüfverfahren nach CEN TC 126 WG 1 bei der Überwachung der Sanierung von Treppenhaus-Podesten großer Zahl
- DAGA__17** **W. Schirmer, D. Friedemann**
Zur Planung von Fußböden mit verminderten Gehgeräuschen
- DAGA__18** **Uwe Ritterstaedt**
Noise contingentation in land use planning

Lehre in der Akustik

- DAGA__19** **Peter Költzsch**
Überlegungen zum Studium der Akustik an deutschen Universitäten und Hochschulen

Biologische Akustik

- DAGA__20** **G. Marx**
Beurteilung der Lauteigenschaften von Küken zur Einschätzung sozialer Belastungen

Elektroakustik

- DAGA__21** **Florian M. König**
Über die Möglichkeit einer ortsunabhängigen, individuellen Bestimmung von Außenohr-Übertragungsfunktionen ohne akustischen Meßaufwand (Poster)

Poster: Biologische Akustik

- (kein Beitrag) **Einschätzung von Belastungen durch Managementmaßnahmen beim Geflügel an den Lautäußerungen in größeren Tiergruppen (Poster)**

Poster: Lärmschutz

- DAGA__23** **V. Marquardt, D. Schäffer, G. Marx, H. Prange**
Lärm als Umweltkomponente in der Schweinehaltung (Poster)
- DAGA__24** **Udo Lenz, Reinhold Waßmann, J. Siegmann**
Ermittlung des Lärminderungspotentials von Straßenbahnen durch Optimierung des Fahrweges - Ableitung von Bauempfehlungen - (Poster)

Poster: Sprache

- DAGA__25** **Marcin Kuropatwinski, Dieter Leckschat, Kristian Kroschel, Andrzej Czyzewski**
Ein Ansatz zur Integration von Quellenkodierung und Geräuschreduktion bei der Sprachübertragung im Mobilfunk (Poster)
- DAGA__26** **F. Ranostaj, A. Lacroix**
Analyse der akustischen Eigenschaften des Nasaltrakts (Poster)