Thursday, July 6, 2006

Time/Room	H1	H2	H3	H4	H5	H6	H7	H8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19
Session		RS10-1	RS02-6	SS29-4	SS09-5	RS08-6	SS16-1	RS16-7	SS03-2	SS38-3	SS26-1	SS19-1	RS15-4	SS25-1		SS07-2	RS31-2	SS04-2	SS17-1
08:30-09:50		Envirion. & Occup. Noise	Acoustics & Vibration Theory	Elastic Waves in Solids & Structures	Nonlinear Acoustics & Vibration	Condition Monitoring & Vibration Testing	Passive Techiques in Vib. & Acoustics Attenuation	Measurement Techniques	Acoustic Mat. & Their Characterisation	Numerical Methods in Acoustics	Vibro-Acoustic Transmission in Buildings	Urban Noise	Machinery Noise & Vibration Control	Flow Induced Noise & Struc. Acoustic Coupling		Active Control of Noise & Vibrations & Prac. Sys. Impl.	Vibro-Acoustics & Shock Excitation	Acoustic Signal Processing	Recent Advances in Industrial Technology
09:50-10:20	Coffee Break																		
Session	RS03-9	RS10-2	RS02-7	SS29-5	SS09-6	RS08-7	SS16-2	RS16-8	SS03-3	SS38-4	SS26-2	SS40-1	RS15-5	SS25-2	SS11-4	SS07-3	RS31-3	SS04-3	RS11-1
10:20-12:00	Active Noise & Vibration Control	Envirionmental & Occupat. Noise	Acoustics & Vibration Theory	Elastic Waves in Solids & Structures	Nonlinear Acoustics & Vibration	Condition Monitoring & Vibration Testing	Passive Techiques in Vib. & Acoustics Attenuation	Measurement Techniques	Acoustic Materials & Their Characterisation	Numerical Methods in Acoustics	Vibro-Acoustic Transmission in Buildings	Noise & Vib. in Reciprocating & Rotary Compressors	Machinery Noise & Vibration Control	Flow Induced Noise & Structural-Acoustic Coupling	Duct Acoustics & Mufflers	Active Control of Noise & Vibrations & Prac. Sys. Impl.	Vibro-Acoustics & Shock Excitation	Acoustic Signal Processing	Human Response to Sound & Vibration
12:00-13:30	Lunch																		
Session		RS10-3	RS02-8	SS29-6		RS08-8	SS16-3	RS16-9	SS03-4	SS38-5	SS26-3	SS40-2	RS15-6	SS24-1	SS18-1	SS07-4	SS10-1	SS04-4	RS11-2
13:30-15:10		Envirionmental & Occupat. Noise	Acoustics & Vibration Theory	Elastic Waves in Solids & Structures		Condition Monitoring & Vibration Testing	Passive Techiques in Vib. & Acoustics Attenuation	Measurement Techniques	Acoustic Materials & Their Characterisation	Numerical Methods in Acoustics	Vibro-Acoustic Transmission in Buildings	Noise & Vib. in Reciprocating & Rotary Compressors	Machinery Noise & Vibration Control	Speech Intelligibility & Sound Quality in Vehicles & Enclcos.	Muffler Design	Active Control of Noise & Vibrations & Prac. Sys. Impl.	Psycho Acoustics & Signal Processing	Acoustic Signal Processing	Human Response to Sound & Vibration
15:20-16:10	Plenary Keynote Lecture 7 (H1)																		
16:10-16:40	Closing Ceremony (H1)																		

Thursday, July 6, 2006

Time/Room	H1	H2	H3	H4	H5	H6	H7	H8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19
Session		**RS10-1**	**RS02-6**	**SS29-4**	**SS09-5**	**RS08-6**	**SS16-1**	**RS16-7**	**SS03-2**	**SS38-3**	**SS26-1**	**SS19-1**	**RS15-4**	**SS25-1**		**SS07-2**	**RS31-2**	**SS04-2**	**SS17-1**
08:30-08:50		738	741	745	748	752	756	759	763	767	771	775	779	783		787	791	795	799
08:50-09:10		739	742	746	749	753	757	760	764	769	772	776	780	784		788	792	796	800
09:10-09:30		740	743	747	750	754	758	761	765	770	773	777	781	785		789	793	797	801
09:30-09:50			744		751	755		762	766		774	778	782	786		790	794	798	802
09:50-10:20	Coffee Break																		
Session	**RS03-9**	**RS10-2**	**RS02-7**	**SS29-5**	**SS09-6**	**RS08-7**	**SS16-2**	**RS16-8**	**SS03-3**	**SS38-4**	**SS26-2**	**SS40-1**	**RS15-5**	**SS25-2**	**SS11-4**	**SS07-3**	**RS31-3**	**SS04-3**	**RS11-1**
10:20-10:40	803	808	813	818	821	826	831	835	840	845	850	855	859	864	868	873	878	882	887
10:40-11:00	804	809	814	819	822	827	832	836	841	846	851	856	860	865	869	874	879	883	888
11:00-11:20	805	810	815	820	823	828	833	837	842	847	852	857	861	866	870	875	880	884	889
11:20-11:40	806	811	816		825	829	834	838	843	848	853	858	862	867	871	876	881	885	890
11:40-12:00	807	812	817					839	844	849	854		863		872	877		886	891
12:00-13:30	Lunch																		
Session		**RS10-3**	**RS02-8**	**SS29-6**		**RS08-8**	**SS16-3**	**RS16-9**	**SS03-4**	**SS38-5**	**SS26-3**	**SS40-2**	**RS15-6**	**SS24-1**	**SS18-1**	**SS07-4**	**SS10-1**	**SS04-4**	**RS11-2**
13:30-13:50		892	896	900		902	905	910	915	920	925	927	929	932	937	940	944	948	951
13:50-14:10		893	897	901		903	906	911	916	921	926	928	930	933	938	941	945	949	952
14:10-14:30			898			904	907	912	917	922			931	934	939	942	946	950	953
14:30-14:50			899				908	913	918	923				935		943	947		954
14:50-15:10							909	914	919	924				936					955
15:20-16:10	**Plenary Keynote Lecture 7 (H1)**																		
16:10-16:40	**Closing Ceremony (H1)**																		

ICSV13 - Vienna

The Thirteenth International Congress on Sound and Vibration

Vienna, Austria, July 2-6, 2006

Thursday

July 6, 2006

08:30 – 09:50

RS10-1 — H2

Environmental and Occupational Noise
Chairpersons: J. BRIDGE, M. DITTRICH

08:30	Acoustic model and noise map of a CERN installation implemented by TYMPAN 3.2 **Egea-Valero, J.*; Bernardes, A.**	738
08:50	Problem of traffic noise around public places **Derbal, R.*; Zeghlache, H.**	739
09:10	Is the noise act 1996 an effective means of limiting disturbance due to noise in dwellings at night? **Morrissey, H.***	740

RS02-6 — H3

Acoustics and Vibration Theory
Chairpersons: F. FAHY, Y. FUJITA

08:30	Dynamic response of beams with a flexible support under a moving load **Lin, H.***	741
08:50	Dynamical model determination of a jointed beam under follower force **Sohrabian, M.*; Ahmadian, H.**	742
09:10	Influence of bridge continuity on impact factor **Asnachinda, P.*; Pinkaew, T.**	743
09:30	Dynamics of ultrasound contrast agents with lipid coating **Doinikov, A.*; Teterev, A.**	744

SS29-4 — H4

Elastic Waves in Solids and Structures
Organisers: V. KRYLOV, S. SOROKIN

08:30	Resonant vibrations of metallic inserts in honeycomb sandwich **Dayal, V.***	745
08:50	Vibration characteristics of rotating beams with periodically distributed piezoelectric dampers **Alaa El-Din, M.; Tawfik, M.***	746
09:10	Wave propagation behavior of a multi-connected structure **Nishida, A.***	747

SS09-5 — H5

Nonlinear Acoustics and Vibration
Organiser: W. GAN

08:30	Resonant acoustic model of catastrophic Tsunami **Galiev, S.*; Mallinson, G.**	748
08:50	Non-linear characterisation of piezoelectric ceramics for acoustic transducers **Mukherjee, B.***	749
09:10	The series method for wave propagation in hipoplastic medium **Chigarev, A.*; Kireyeva, I.; Gudehus, G.**	750
09:30	Parametric resonance in a capacitive MEMS **D'Angola, A.***	751

RS08-6 — H6

Condition Monitoring and Vibration Testing
Chairpersons: M.F.M. HUSSEIN, J. VERHEIJ

08:30	Frequency dependence of promotion degree in lactic fermentation promotion using sound and ultrasound **Masuzawa, N.; Katayama, K.***	752
08:50	Vibration damping of long fiber thermoplastic composites **Vaidya, U.*; Crocker, M.**	753
09:10	A simple impact test method for accurate measurement of material properties **Zhu, W.*; Emory, B.**	754
09:30	AR pole trajectory in condition monitoring studies **Thanagasundram, S.; Ram Gurung, K.; Feng, Y.; Schlindwein, F.***	755

SS16-1 — H7

Passive Techniques in Vibrations and Acoustics Attenuation
Organisers: M. TAWFIK, W. AKL, M. AL-AJMI

08:30	Bridge vibration control system using VDW-type passive damper **Yi, J.*; Jung, W.; Kim, S.; Kim, N.**	756
08:50	A study on low-vibration rotor blade design for helicopter by using tapered mass distribution methodology **Kim, D.*; Song, K.; Kee, Y.; Kim, J.; Joo, G.**	757
09:10	Investigation of aeroelastic stability of a hingeless rotor system with tailored composite flexures **Kim, D.*; Song, K.; Kim, S.; Joo, G.**	758

RS16-7 — H8

Measurement Techniques
Chairpersons: D.K. ANTHONY, S.-K. YANG

08:30	Influence of ultrasound on cellulose fibres dyeing mechanism with reactive dyes **Miljkovic, M.*; Ignjatovic, V.; Zarubica, A.**	759
08:50	The mechanical property evaluation of film material based on laser speckle interferometry **Kisoo, K.*; Choi, M.; Kim, K.**	760
09:10	Computation of complex dynamic stiffness of inflated diaphragm in pneumatic springs by using FE codes **Lee, J.*; Kim, K.**	761
09:30	Railway sound source separation by combined sound pressure and sound velocity measurements **Wunderli, J.***	762

SS03-2 — S9

Acoustic Materials and Their Characterisation
Organisers: K. HOROSHENKOV, F. POMPOLI

08:30	Empirical equations for sound propagation for different absorbents **Alba Fernández, J.*; Ramis Soriano, J.; Juliá Sanchis, E.; Escuder Silla, E.**	763
08:50	Normal incidence transmission loss of symmetric sandwich structures in a plane wave tube **Bonfiglio, P.*; Pompoli, F.; Peplow, A.**	764
09:10	A fitting method to estimate the air flow resistivity of porous materials **Simon, F.*; Fernandez, D.; Pfretzschner, J.**	765
09:30	Sound and thermal insulating properties of materials on mineral bases **Fojtu, D.*; Polasek, A.; Lapcik, Jr., L.**	766

SS38-3 — S10

Numerical Methods in Acoustics
Organiser: O. VON ESTORFF

08:30	Numerical simulation of sound wave propagation with sound absorption in time domain **Tsuchiya, T.***	767
08:50	Application of optimized compact finite difference schemes on uneven grid to the computation of acoustic wave propagation **Iwatsu, R.*; Tsuru, H.; Hirosawa, K.**	769
09:10	A physical interpretation of the frequency dependent boundary conditions in a digital waveguide mesh **Escolano-Carrasco, J.*; Jacobsen, F.**	770

SS26-1 — S11

Vibro-Acoustic Transmission in Buildings
Organisers: B. GIBBS, H.-M. FISCHER

08:30	Towards a practical structure-borne source characterisation for machines in buildings **Gibbs, B.***	771
08:50	Bending wavenumber and associated damping **Nightingale, T.***	772
09:10	Vibration transmission across plate junctions using the statistical energy analysis formulation **De Castro Magalhaes, M.***	773
09:30	Consideration of vibration sources in buildings on a power basis **Mayr, A.*; Gibbs, B.; Fischer, H.**	774

SS19-1 — S12

Urban Noise
Organiser: L.B. COELHO

08:30	The good practice guide for strategic noise mapping **Bento Coelho, J.*; Hinton, J.**	775
08:50	The effect of speed and traffic volume on noise levels in a city **Sahasrabudhe, A.***	776
09:10	Application of a forecast code and measurement of train noise: a case study in Catania (Sicily) **Patania, F.*; Gagliano, A.; Nocera, F.; Galesi, A.**	777
09:30	Noise exposure guidelines for use in city environmental impact review **Valenta, M.***	778

RS15-4 — S13

Machinery Noise and Vibration Control
Chairpersons: Z. ENGEL, K. SETO

08:30	The effect of bearing clearance on the dynamic behavior of a mechanical press with variable angular velocity **Wang, J.*; Lai, Y.**	779
08:50	Study for 2F noise reduction of air-conditioner using single phase induction motor **Hong, S.*; Joo, J.; Lee, J.**	780
09:10	Acoustic pattern of the little tool-machines superfamily **Fernandez, M.*; Recuero, M.; Blas, J.**	781
09:30	Design of MEMS resonator array for minimization of mode localization factor subject to random fabrication error **Lee, C.*; Kim, W.**	782

SS25-1 — S14

Flow Induced Noise and Structural-Acoustic Coupling
Organisers: G. MATHUR, H. OSMAN, N. AGARWAL

08:30	Evaluation of TBL excited CFRP fuselage structure noise transmission loss **Paonessa, A.*; Di Glulio, M.; De Rosa, S.; Franco, F.; Imperatore, B.**	783
08:50	Comparison of the vibroacoustic behaviour of a rectangular thin plate excited by a diffuse sound field and a turbulent boundary layer **Cacciolati, C.; Guyader, J.; Neple, P.***	784
09:10	High frequency broadband radiation from panels and periodic structures including the effect of structural power flow on directivity **Bliss, D.*; Franzoni, L.; Danilov, P.**	785
09:30	Semi-empirical prediction of the flow structure behind a longitudinally oscillating cylinder based on surface vorticity analysis **Xu, S.*; Wang, M.; Zhou, Y.; Tu, J.**	786

SS07-2 — S16

Active Control of Noise and Vibrations in Practical System Implementations
Organisers: S. JOHANSSON, M. WINDBERG

08:30	Active noise control system in passenger car **Dabrowski, Z.; Stankiewicz, B.***	787
08:50	Active control of noise from a vacuum cleaner **Paurobally, R.***	788
09:10	Active/passive facade insulation against aircraft noise **Jacques, R.*; Julien, M.; Remi, L.**	789
09:30	Implementation of a semi-active noise control system for duct applications **Noronha Castro Pinto, F.*; Souza Pacheco, W.**	790

RS31-2	**Vibro-Acoustics and Shock Excitation** Chairpersons: J.-L. GUYADER, M. PETYT	S17
08:30	Lift-off vibro-acoustic analysis of upper stage of small launch vehicle **Park, S.*; Seo, S.; Jeong, H.; Jang, Y.**	791
08:50	Design of the shock isolator using topology optimization with application to ballistic shock **Lim, K.*; Wang, S.; Kim, C.**	792
09:10	Removal of charged powder deposits by high intensity low frequency sound: the role of inertial and drag forces **Seiffert, G.*; Gibbs, B.**	793
09:30	Ultrasound propagation in concrete **Chilibon, I.***	794

SS04-2	**Acoustic Signal Processing** Organisers: A. IKUTA, M. OHTA	S18
08:30	An experimental study for the evaluation of sound and other environmental factors from the physiological and psychological point of view **Iwashige, H.*; Ohta, M.; Ogawa, H.**	795
08:50	Sound immission measurement for sources with different temporary constant emission (aircraft engine) applying accuracy monitored background sound separation **Heiss, A.***	796
09:10	The optimal pole-zero model for a room transfer function and its spatial interpolation and extrapolation **Shin, M.*; Wang, S.**	797
09:30	Tracking noise sources using multiple mobile microphone arrays **Mennitt, D.; Gillett, P.; Carneal, J.; Johnson, M.***	798

SS17-1	**Recent Advances in Industrial Technology** Organisers: T. LAGÖ, A. BRANDT	S19
08:30	Development of transmission-type pixel enhancement actuator for DLP projection device **Yun, G.*; Hong, S.; Ko, E.; Koo, H.; Park, S.**	799
08:50	A first prototype of an active boring bar tested in industry **Åkesson, H.*; Smirnova, T.; Håkansson, L.; Claesson, I.; Lagö, T.**	800
09:10	Piezoelectric vibrator for medical vibroacoustic diagnostics **Bazhenov, A.*; Didenkulov, I.; Korneichuk, V.; Yarovikov, V.**	801
09:30	Vold-Kalman and other order tracking methods in MATLAB® **Brandt, A.*; Lagö, T.; Ahlin, K.; Tuma, J.**	802

09:50 **COFFEE BREAK**

10:20 – 12:00

RS03-9	**Active Noise and Vibration Control** Chairperson: M. ASSELINEAU	H1
10:20	Improved noise reduction in audio signals using grazing estimation method **Manikandan, S.***	803
10:40	Modal analysis and control of adaptive structures with shear piezoelectric actuators **Al-ajmi, M.*; Tawfik, M.**	804
11:00	Structures parameters identification for active vibration control **Daniel, G.; Bueno, D.; Melo, G.; Lopes Júnior, V.***	805
11:20	Optical laser jitter suppression using feedback and adaptive control methods **Sugathevan, S.*; Agrawal, B.**	806
11:40	Active vibration control of civil structures under seismic loading **Kouhi, S.*; Montazeri, A.; Poshtan, J.**	807

RS10-2	**Environmental and Occupational Noise** Chairpersons: J. BRIDGE, M. DITTRICH	H2
10:20	Structural and acoustical response in buildings due to surface traffic in the higher frequency range **Fiala, P.*; Degrande, G.; Granat, J.; Augusztinovicz, F.**	808
10:40	Noise of storms **Naugolnykh, K.***	809
11:00	Noise perception of people and scoring of noise exposure **Probst, W.***	810
11:20	Ventilation equipment noise estimation in dog care centre **Tsukernikov, I.*; Nekrasov, I.; Dormidontova, V.**	811
11:40	Acoustic analogy applied on wind turbine noise generation and propagation **Fuchs, L.*; Moroianu, D.**	812

RS02-7 — H3

Acoustics and Vibration Theory
Chairpersons: F. FAHY, Y. FUJITA

10:20	Application of wavelets to analysis of vibration due to moving load inside a layer **Hryniewicz, Z.***	813
10:40	An experimental application of the equivalent source method to sound radiation **Onescu, C.; Pavic, G.; Parlac, S.; Stanescu, N.***	814
11:00	Statistical energy analysis to study the vibroacoustic of a launcher vehicle: an application to different flight conditions **Culla, A.*; La Mendola, S.**	815
11:20	Experimental detection of structural damages using system norms **Bueno, D.*; Marqui, C.; Cordeiro, L.; Lopes Júnior, V.**	816
11:40	Optimization of structure of a material of the cutting tool at vibration **Archipov, I.*; Vasin, S.; Silakov, M.**	817

SS29-5 — H4

Elastic Waves in Solids and Structures
Organisers: V. KRYLOV, S. SOROKIN

10:20	Acoustic wave scattering from immersed type I and type II transversely isotropic cylinders covered by isotropic cladding **Sodagar, S.*; Honarvar, F.; Sinclair, A.**	818
10:40	1D-space finite element approximation with 2D-space Fourier transform and with time-domain formulation for 3D-transient elastic waves in multilayer semi-infinite media **Desceliers, C.*; Grimal, Q.; Haiat, G.; Naili, S.; Soize, C.**	819
11:00	Applications of bidimensional numerical simulation of elastic wave propagation in nondestructive testing **Rugina, C.***	820

SS09-6 — H5

Nonlinear Acoustics and Vibration
Organiser: W. GAN

10:20	Dissipation of non-linear guided bulk waves is anomalously weak in elastic solids **Samsonov, A.*; Dreiden, G.; Semenova, I.**	821
10:40	Emergence of chaotic attractor and anti-synchronized oscillations for two coupled monostable neurons **Courbage, M.***	822
11:00	Acoustic emission monitoring of the foundation on soft saturated soil **Vilchinska, N.***	823
11:20	Crack detection in beam-like structures using a power series technique and artificial neural networks **Rosales, M.*; Filipich, C.; Buezas, F.**	825

RS08-7 — H6

Condition Monitoring and Vibration Testing
Chairpersons: M.F.M. HUSSEIN, J. VERHEIJ

10:20	Early stages faults detection using PCA **Jasinski, M.*; Radkowski, S.**	826
10:40	Prediction of the interrogation range of a novel form of acoustic detection system **Papadopoulou, K.; Glover, D.; Lennox, B.; McKay, D.; Taylor, A.*; Turner, J.**	827
11:00	Use of vibroacoustic diagnosis in reducing the uncertainty of technical risk estimation **Guminski, R.*; Radkowski, S.**	828
11:20	Threaded fastener loosening due to dynamic shear load **Hess, D.***	829

SS16-2 — H7

Passive Techniques in Vibrations and Acoustics Attenuation
Organisers: M. TAWFIK, W. AKL, M. AL-AJMI

10:20	The use of rheological fluids to control vibrations in mechanical systems **Szary, M.***	831
10:40	Use of periodic blocking masses for suppression of transmission of energy in straight elastic tubes **Holst-Jensen, O.*; Sorokin, S.**	832
11:00	Effectiveness of stationary humans and tuned mass dampers in controlling floor vibrations **Pedersen, L.***	833
11:20	A new criterion to optimize the parameters of a dynamic vibration absorber **Vera, S.*; Febbo, M.**	834

RS16-8 — H8

Measurement Techniques
Chairpersons: D.K. ANTHONY, S.-K. YANG

10:20	Acoustic resonator for mitigation actions on underground railway lines **Venditti, A.*; Coppi, M.**	835
10:40	Measurement uncertainties related to the sound power procedures based on sound intensity **Carletti, E.*; Pedrielli, F.**	836
11:00	Relationship between time of flight (TOF) measurement error and phase characteristics of sound probe **Odanaka, I.*; Mizutani, K.; Mizutani, K.; Wakatsuki, N.**	837
11:20	Verification of an effect of soil densification applying gravel drain system using surface-wave method and DEM simulation **Kawamura, Y.; Ito, K.*; Yamamoto, K.; Sakakibara, T.**	838
11:40	Identification of fractional-derivative-model parameters of viscoelastic materials using an optimization technique **Lee, D.*; Kim, S.**	839

SS03-3 S9

Acoustic Materials and Their Characterisation
Organisers: K. HOROSHENKOV, F. POMPOLI

10:20	Measurements and characterization of mechanical and acoustic properties of aluminium foams **Torra i Fernàndez, È. *; Pompoli, F.**	840
10:40	Complete elastic characterization of viscoelastic materials **Guillot, F.*; Trivett, D.; Rogers, P.**	841
11:00	Nonlinear characteristics of the internal damping of composite materials used in flywheel components **Moreira, A.*; Flowers, G.**	842
11:20	Acoustic behavior of multilayer panels formed by polymers and materials by wood **Alba Fernández, J.*; Ramis Soriano, J.; Segura, J.; Ivorra Chorro, S.**	843
11:40	Vibration and noise damping of porous materials **Juricka, M.*; Vasina, M.; Lapcik, Jr., L.**	844

SS38-4 S10

Numerical Methods in Acoustics
Organiser: O. VON ESTORFF

10:20	Evaluation of model uncertainty in modal acoustic response analysis **Dunne, L.*; Dunne, J.**	845
10:40	Further results for state space fluid-structure interaction analysis using coupled finite and boundary element analyses **Fahnline, J.***	846
11:00	An innovative hybrid CFD/BEM method for the prediction of body-turbulence interaction noise **Schram, C.*; Tournour, M.**	847
11:20	Compact structural-acoustic coupled models via model order reduction (MOR) **Puri, S.*; Morrey, D.; Bell, A.; Rudnyi, E.; Korvink, J.**	848
11:40	MOGA & MOGT optimisation strategies and SOM results representation **Miccoli, G.*; Bregant, L.; Pediroda, V.; Seppi, M.**	849

SS26-2 S11

Vibro-Acoustic Transmission in Buildings
Organisers: B. GIBBS, H.-M. FISCHER

10:20	A reception plate method of measurement of the free velocity of machines in buildings **Cookson, R.*; Qi, N.**	850
10:40	A reception plate method of measurement of the source mobility of machines in buildings **Qi, N.*; Cookson, R.**	851
11:00	Prediction of vibration energy transmission in a structure consisting of thick elements **Nishino, H.*; Honda, I.**	852
11:20	Structure-borne power transmission from a lightweight stair into a connected wall **Scheck, J.*; Fischer, H.; Gibbs, B.**	853
11:40	Characterisation of low-frequency impact sound transmission in dwellings **Neves e Sousa, A.*; Gibbs, B.**	854

SS40-1 S12

Noise and Vibration in Reciprocating and Rotary Compressors
Organiser: M.J. CROCKER

10:20	Noise and vibration in reciprocating and rotary compressors - a review **Crocker, M.***	855
10:40	The influence of housing on the noise emitted by a reciprocating compressor **Jeric, A.*; Govekar, E.; Gradisek, J.; Grabec, I.**	856
11:00	Sound reduction of hermetic rolling piston compressor **Dreiman, N.*; Bunch, R.**	857
11:20	Model based optimization of compressor mounting using genetic algorithms **Pusavec, F.*; Govekar, E.; Gradisek, J.; Grabec, I.**	858

RS15-5 S13

Machinery Noise and Vibration Control
Chairpersons: Z. ENGEL, K. SETO

10:20	Experimental studies on support transmission coefficients in a finite periodic beam **Sonti, V.*; Narayana, T.**	859
10:40	Platform design for the vibration control simulation system **Song, Q.***	860
11:00	Finite element and optimisation model for passive techniques in vibration attenuation of mechanical components **Matos Neves, M.***	861
11:20	Noise and vibration diagnosing of tribomechanical systems **Yavlensky, A.*; Belousov, A.**	862
11:40	Vibration analysis of rotating multidirectional laminated composite disks **Koo, K.***	863

SS25-2 S14

Flow Induced Noise and Structural-Acoustic Coupling
Organisers: G. MATHUR, H. OSMAN, N. AGARWAL

10:20	Aerodynamic sound emitted from a rectangular bar with rounded edge(s) in uniform flow **Miyata, M.; Hayashi, Y.***	864
10:40	Dynamic response of dual-layer ship structures subjected to underwater explosion **Wang, Y.*; Tong, Z.; Hua, H.**	865
11:00	Unsteady pattern and oscillation of flow in supersonic axial compressor stages **Ledovskaya, N.***	866
11:20	The analysis of the turbulence driven plate response in presence of added masses **De Rosa, S.*; Franco, F.**	867

SS11-4 S15

Duct Acoustics and Mufflers
Organisers: M. ABOM, H. BODEN, A. TORREGROSA

10:20	Investigation of nonlinear acoustic investigation of nonlinear acoustic properties for perforates **Bodén, H.***	868
10:40	Effects of mean flow on acoustic attenuation performance of straight through perforated tube silencers **Ji, Z.***	869
11:00	The plate impingement of the weak shock wave discharging from various 3-dimensional ducts **Kweon, Y.*; Miyazato, Y.; Aoki, T.; Kim, H.; Setoguchi, T.**	870
11:20	Advanced experimental procedure for in-duct aeroacoustics **Allam, S.*; Åbom, M.**	871
11:40	An object-oriented approach for linear acoustic modelling of complex silencer Systems **Bachner, B.***	872

SS07-3 S16

Active Control of Noise and Vibrations in Practical System Implementations
Organisers: S. JOHANSSON, M. WINDBERG

10:20	Semi-active machinery vibration control by use of magnetoreological dampers **Tudor, S.*; Gheorghe, G.; Odobescu, G.; Stammers, S.W.**	873
10:40	Experimental study on active vibration control via inverse modeling **Liu, D.*; Zhang, Z.; Hua, H.**	874
11:00	Design and application of a semi-active electromechanical vibration absorber **Bös, J.*; Mayer, D.**	875
11:20	Active vibration isolation of a rigidly mounted turbo pump **Basten, T.*; Doppenberg, E.**	876
11:40	Experimental active vibration control of an in-air or water-loaded plate: influence of typology and location of the error sensors **Carra, S.*; Amabili, M.; Ohayon, R.**	877

RS31-3 S17

Vibro-Acoustics and Shock Excitation
Chairpersons: J.-L. GUYADER, M. PETYT

10:20	Dispersion of ultrasonic waves in transversely isotropic cylinders **Honarvar, F.*; Enjilela, E.; Sinclair, A.**	878
10:40	Earthquake resistant cellular network base transfer station proved under the severe earthquake events occurred at Niigata **Kim, Y.*; Huh, Y.; Lee, J.; Kim, J.**	879
11:00	Cavitation process improvement for extracorporeal shock wave lithotripter (ESWL) system **Chilibon, I.*; Wevers, M.; Lafaut, J.**	880
11:20	Development of a flash memory drive for ATA bus **Jang, M.*; Park, J.**	881

SS04-3 S18

Acoustic Signal Processing
Organisers: A. IKUTA, M. OHTA

10:20	A methodological trial for evaluation of compound effects based on inter-subjective relationships between sound and other physical/physiological factors in indoor electrification environment **Ogawa, H.*; Ohta, M.**	882
10:40	Sub-band coding implementation for real-time time-domain acoustic holography **Park, C.*; Kim, Y.**	883
11:00	Acoustic spectral research of protective coatings on valve metals **Kozak, A.; Kostiuk, D.; Kuzavko, Y.***	884
11:20	Resolution of multipath arrivals via application of broadband frequency modulated carrier signals **Kebkal, K.*; Bannasch, R.; Kebkal, A.**	885
11:40	Investigation of constructing a noise-robust recognition system making use of body-conducted speech **Ishimitsu, S.***	886

RS11-1 S19

Human Response To Sound and Vibration
Chairperson: J. ROLAND

10:20	Long-term measurements and analysis of day-to-day variability on whole body vibration exposure levels in work environments **Marjanen, Y.***	887
10:40	Whole-body human vibration experiments conducted by two different laboratories in Brazil: a comparison of results **M. Duarte, M.*; A. das Neves, F.; C.G. Pereira, C.; Misael, M.; A. Freitas Filho, L.**	888
11:00	Research on the riding comfort of taxi drivers **Xu, Z.*; Huang, Y.; He, Y.; Zhang, Z.**	889
11:20	Train passengers ability to read and write during occasional lateral jerks: a laboratory study **Sundstrom, J.*; Khan, S.**	890
11:40	Human comfort analysis in a test environment simulating real work machine vibrations **Marjanen, Y.*; Launis, S.; Leino, S.; Kortelainen, J.**	891

12:00 **LUNCH**

13:30 – 15:10

RS10-3 — H2

Environmental and Occupational Noise
Chairpersons: J. BRIDGE, M. DITTRICH

13:30	Noise from wind turbines and comparison with standards **Alfredson, R.*; Davis, L.; Joshi, A.**	892
13:50	Considerations upon the noise generated by a power supply substation **Bacria, V.; Barbulescu, C.***	893

RS02-8 — H3

Acoustics and Vibration Theory
Chairpersons: F. FAHY, Y. FUJITA

13:30	Improved eigenvalues for combined dynamical systems using a modified finite element discretization scheme **Cha, P.***	896
13:50	Hypothetical communication model of interacting rhythms in live complex open systems **Heinen, A.***	897
14:10	Two-dimensional structural model of the vibro-acoustic feedback in a hearing aid **Friis, L.*; Ohlrich, M.**	898
14:30	Wave propagating on elastic-human compact bone interface **Shao-Yi, H.***	899

SS29-6 — H4

Elastic Waves in Solids and Structures
Organisers: V. KRYLOV, S. SOROKIN

13:30	A vibration isolation structure with the idea of phononic crystals **Wen, J.*; Wang, G.; Yu, D.; Zhao, H.; Liu, Y.**	900
13:50	Heuristic model for estimating of lowest band gap in two- and three-dimensional ternary locally resonant phononic crystals **Wang, G.*; Liu, Y.; Shao, L.; Yu, D.; Wen, J.**	901

RS08-8 — H6

Condition Monitoring and Vibration Testing
Chairpersons: M.F.M. HUSSEIN, J. VERHEIJ

13:30	Application of wavelet transform to signal processing in diagnostic of pit shaft **Batko, W.; Mikulski, A.***	902
13:50	Forecast of a system's destruction as the basis for a new strategy of system operation **Radkowski, S.*; Zawisza, M.**	903
14:10	Technology impacts and the stiffness of a truss lunar gravity oscillator **Rugescu, R.***	904

SS16-3 — H7

Passive Techniques in Vibrations and Acoustics Attenuation
Organisers: M. TAWFIK, W. AKL, M. AL-AJMI

13:30	Determination of the steady-state response of viscoelastically supported viscoelastic cantilever beam with tip mass under sinusoidal base excitation **Kocatürk, T.; Şimşek, M.*; İlhan, N.**	905
13:50	Simplified model of vibrations and selfheating of viscoplastic dampers based on the conception of complex moduli **Vasilij, K.*; Igor, S.; Jaroslav, Z.**	906
14:10	Vibration control of a passive constrained layer treated open shell **Kumar, N.*; Singh, S.**	907
14:30	Measurement of structure-borne sound in trapezoidal corrugated plates, field - passive vibration control method **Mandal, N.*; Rahman, R.; Leong, S.**	908
14:50	An analytical evaluation of acoustical radiation from planar structures with varying constrained layer damping treatments **Zheng, H.*; Cai, C.**	909

RS16-9 — H8

Measurement Techniques
Chairpersons: D.K. ANTHONY, S.-K. YANG

13:30	Numerical simulation on a fatigue testing facility **Köberl, B.*; Kollegger, J.**	910
13:50	Vibration analysis of the top plates of traditional Greek string musical instruments **Papadogiannis, N.*; Bakarezos, M.; Tatarakis, M.; Antoniadis, A.; Papadopoulos, C.**	911
14:10	An experimental study on acoustical methods for the diagnosis of pulmonary pathologies **Cigna, C.*; Patrucco, M.; Dalmasso, F.**	912
14:30	Vibrational viscoelastometry of biological soft tissues **Timanin, E.; Eremin, E.; Didenkulov, I.***	913
14:50	Impulsive noise attenuation of an insertion hearing protector **Vergara, E.*; Calçada, M.; Gerges, S.**	914

SS03-4 S9

Acoustic Materials and Their Characterisation
Organisers: K. HOROSHENKOV, F. POMPOLI

13:30	Comparison between different methods of characterizing elastic layers **Simón, F.*; Anthony, D.**	915
13:50	On the determination of the dynamic stiffness of materials used under floating floors by using impact excitation: comparison between different laboratory measurement techniques **Bettarello, F.*; Fausti, P.; Bonfiglio, P.; Quiqueto, G.**	916
14:10	The micro-slotted resonator with flexible tube bundle **Lu, Y.*; Tang, H.; Tian, J.; Li, H.**	917
14:30	Loss factor of monolithic and laminated glasses **Ramis Soriano, J.*; Alba Fernández, J.; Gadea, J.; Escuder Silla, E.; Ivorra Chorro, S.**	918
14:50	A study of dynamic bending stiffness of sandwich structures with foam filled honeycomb cores **Yu, Z.; Crocker, M.***	919

SS38-5 S10

Numerical Methods in Acoustics
Organiser: O. VON ESTORFF

13:30	The source simulation technique with complex source points for computing acoustic radiation problems **Ochmann, M.*; Piscoya, R.**	920
13:50	Iterative numerical solution of nonlinear wave problems **Huijssen, J.*; Verweij, M.**	921
14:10	Simplified integral energy method: application to pass by noise **Andro, B.*; Chaigne, S.; Schmitt, T.; Shah, A.**	922
14:30	Numerical modeling of sound signal propagation through a liquid with bubble area **Kudryashov, N.*; Teterev, N.**	923
14:50	Automotive engine valve-cover acoustic radiation with frequency-dependent preloaded gaskets **Cipolla, J.*; D'Souza, K.**	924

SS26-3 S11

Vibro-Acoustic Transmission in Buildings
Organisers: B. GIBBS, H.-M. FISCHER

13:30	In-situ measurement of material properties of gypsum board walls **Schoenwald, S.*; Martin, H.; Gerretsen, E.**	925
13:50	Self-similarity analysis of the floor impact sound **Tang, Y.*; Shibayama, H.; Tanaka, W.**	926

SS40-2 S12

Noise and Vibration in Reciprocating and Rotary Compressors
Organiser: M.J. CROCKER

13:30	The purpose of this study is to analyze the free vibration characteristics of rotating shell type blades **Kee, Y.*; Kim, D.; Kim, S.; Joo, G.**	927
13:50	Noise reduction mechanisms of a spring wound LDT for a reciprocating compressor? **Wang, S.*; Park, J.**	928

RS15-6 S13

Machinery Noise and Vibration Control
Chairpersons: Z. ENGEL, K. SETO

13:30	Stability analysis of a three-ball automatic balancer **Lu, C.*; Hung, C.**	929
13:50	Ultrasonic noise at selected workplaces **Smagowska, B.***	930
14:10	Machinery noise: a drafting approach **Popescu, D.***	931

SS24-1 S14

Speech Intelligibility and Sound Quality in Vehicles and Enclosures
Organisers: G. MATHUR, H. OSMAN, N. AGARWAL

13:30	In-flight modified rhyme tests (MRT) for PA system qualification in a large aircraft **Mathur, G.*; Tsangarakis, M.; Lotts, D.; Barry, K.; Agarwal, N.**	932
13:50	Influence of spatiality in determining speech transmission index **Bozzoli, F.*; Farina, A.**	933
14:10	Predicting speech intelligibility and security using artificial neural network models **Xu, J.***	934
14:30	Subjective speech intelligibility measurements in light aircraft cabin under laboratory conditions **Bucak, T.***	935
14:50	Automatic identification of noise annoyance features from engine run-up sounds **Janssens, K.*; Kollar, Z.; Vecchio, A.**	936

SS18-1 S15

Muffler Design
Organiser: M. BUGARU

13:30	Acoustic attenuation in fully-filled perforated dissipative mufflers with extended inlet/outlet **Erol, H.*; Ahmetoglu, Ö.**	937
13:50	The experimental identification of the transmission matrix of the muffler **Liu, K.*; Feng, T.; Zhou, Q.; Sha, D.**	938
14:10	Finite element method to calculate the transmission matrix of the muffler **Feng, T.*; Liu, K.; Zhou, Q.; Sha, D.**	939

SS07-4 S16

Active Control of Noise and Vibrations in Practical System Implementations
Organisers: S. JOHANSSON, M. WINDBERG

13:30	Preliminary testing of cabin noise reduction in helicopters using active gearbox struts **Forghieri, A.*; Dozio, L.; Ghiringhelli, G.; Cenedese, F.**	940
13:50	Active structural acoustic control on facades **Doll, T.*; Kurtze, L.; Wolf, K.**	941
14:10	Instantenous harmonic control – convergence analysis and experimental verification **Daley, S.*; Hatonen, J.; Tammi, K.**	942
14:30	Comparison of various active vibration and noise reduction approaches applied to a planar test structure **Bös, J.*; Mayer, D.**	943

SS10-1		S17
	Psycho Acoustics and Signal Processing Organiser: W. DEUTSCH	
13:30	Noidesc: content based description of traffic noise (trains) **Deutsch, W.*; Waubke, H.; Gygi, B.; Noll, A.**	944
13:50	Presentation of the transfer path analysis of the car's interior sound via headphones **Nentwich, F.***	945
14:10	Relationship between sound classification of xylophone-like bars and wood species properties **Aramaki, M.*; Baillères, H.; Branceriau, L.; Kronland-Martinet, R.; Ystad, S.**	946
14:30	Frame multiplier and irregular Gabor filters with application in time frequency masking **Balazs, P.***	947

SS04-4		S18
	Acoustic Signal Processing Organisers: A. IKUTA, M. OHTA	
13:30	Assessment and measure of the power in case of high power ultrasound energy **Odobescu, G.*; Odobescu, R.**	948
13:50	The rise of ultrasonic system efficiency by using miscellaneous adaptation schemes between electronic generator and piezoelectric transducer **Odobescu, G.*; Odobescu, R.**	949
14:10	Ultrasonic signal as tool for sizing discontinuities in solid body **Gabriel, T.***	950

RS11-2		S19
	Human Response To Sound and Vibration Chairperson: J. ROLAND	
13:30	Human comfort and motion under simulated vibration exposure of mobile machinery **Leino, S.*; Marjanen, Y.; Launis, S.; Kortelainen, J.**	951
13:50	Biomechanical modelling of the human body behaviour under vibrations transmitted in case of vibrating rollers used for road construction and maintenance works **Mihalcea, A.***	952
14:10	Design and development of a vibratory device for rehabilitation of patients with a brain related disorder **Zhong, Z.*; Chandramohan, V.**	953
14:30	The effects of sound and vibration to biological rhythm system (BRS) in human organism non-invasive screening, analysis and modulation via voice frequencies with ESS (emotonal stress-screening) & RFM (rhythm-frequency-modulation) **Heinen, A.; Heinen, A.***	954
14:50	The influence of finger position on percussion sounds **Van Zwieten, K.*; Potekhin, V.**	955

PS07		H1
	Plenary Session 7 Chairperson: E. BENES	
15:20	**Keynote Lecture** Acoustics of wood **Bucur V.***	7

16:10		H1
	CLOSING CEREMONY	