

Tuesday, July 4, 2006																			
Time/Room	H1	H2	H3	H4	H5	H6	H7	H8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19
08:30-09:20	Plenary Keynote Lecture 3 (AudiMax)																		
09:30-10:00	Coffee Break																		
Session	RS03-3	RS09-1	RS14-3	RS01-3	RS07-3	RS30-3	RS18-3	RS16-1	RS05-3	RS27-1	SS15-3	SS12-3	SS22-1	RS22-3	SS06-3	SS01-3	RS17-2	RS29-1	RS19-2
10:00-12:00	Active Noise & Vibration Control	Duct Acoustics	Low-Frequency Noise & Vibration	Acoustic Signal Processing	Computational Acoustics	Underwater & Ship Acoustics	Modal Analysis	Measurement Techniques	Architectural Acoustics	Sound Quality & NVH	Aeroacoustics	Noise & Vibration Control In Vehicles	Inverse Problems in Vibro-Acoustics	Non-linear Acoustics & Vibration	Combustion Noise	Active Control of Sound	Mid & High Frequency Methods	Transportation Noise	Musical Acoustics
12:00-13:30	Lunch																		
13:30-14:20	Plenary Keynote Lecture 4 (AudiMax)																		
14:20-14:50	Invitation to ICSV14 (AudiMax)																		
Session	RS03-4	SS05-3	RS02-1	RS01-4	RS07-4	RS08-1	RS18-4	RS16-2	RS05-4	RS27-2	RS04-1		SS22-2	RS22-4	SS21-1	SS01-4	SS08-1	RS29-2	SS32-1
15:00-16:20	Active Noise & Vibration Control	Pattern Recognition in A.&V.	Acoustics & Vibration Theory	Acoustic Signal Processing	Computational Acoustics	Condition Monitoring & Vibration Testing	Modal Analysis	Measurement Techniques	Architectural Acoustics	Sound Quality & NVH	Aero-Acoustics & Aviation Noise		Inverse Problems in Vibro-Acoustics	Non-linear Acoustics & Vibration	Thermo Acoustics and Structure Interaction in Gas Turbine Combustors	Active Control of Sound	Dynamic of Robotic Systems & Appl.	Transportation Noise	Lawnmowers, Con. Mach. & Outdoor Eq.
16:20-16:50	Coffee Break																		
Session	RS03-5	SS05-4	RS02-2		SS09-1	RS08-2	RS18-5	RS16-3	SS30-1	RS21-1	RS04-2	RS25-1	SS22-3	RS22-5		SS28-1	SS08-2	RS29-3	SS32-2
16:50-18:30	Active Noise & Vibration Control	Pattern Recognition in Acoustics & Vib.	Acoustics & Vibration Theory		Nonlinear Acoustics & Vibration	Condition Monitoring & Vibration Testing	Modal Analysis	Measurement Techniques	Architectural Acoustics	Noise Source Identification	Aero-Acoustics & Aviation Noise	Signal Processing	Inverse Problems in Vibro-Acoustics	Non-linear Acoustics & Vibration		Intel. Methods of Active Noise & Vib. Control	Dynamic of Robotic Systems & Applications	Transportation Noise	Lawnmowers, Constr. Mach. & Outdoor Equip.
19:30-22:00	Banquet (City Hall)																		



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Time/Room	H1	H2	H3	H4	H5	H6	H7	H8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19
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Session	RS03-3	RS09-1	RS14-3	RS01-3	RS07-3	RS30-3	RS18-3	RS16-1	RS05-3	RS27-1	RS15-3	SS12-3	SS22-1	RS22-3	SS06-3	SS01-3	RS17-2	RS29-1	RS19-2
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11:40-12:00	190	207	213				225		236		246	252	258	264	270	276	282		293
12:00-13:30	Lunch																		
13:30-14:20	Plenary Keynote Lecture 4 (AudiMax)																		
14:20-14:50	Invitation to ICSV14 (AudiMax)																		
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15:00-15:20	294	298	302	306	310	314	318	322	326	329	332		336	340	344	348	351	355	359
15:20-15:40	295	299	303	307	311	315	319	323	327	330	333		337	341	345	349	352	356	360
15:40-16:00	296	300	304	308	312	316	320	324	328		334		338	342	346	350	353	358	361
16:00-16:20	297	301	305	309	313	317	321	325			335		339	343	347		354		362
16:20-16:50	Coffee Break																		
Session	RS03-5	SS05-4	RS02-2		SS09-1	RS08-2	RS18-5	RS16-3	SS30-1	RS21-1	RS04-2	RS25-1	SS22-3	RS22-5		SS28-1	SS08-2	RS29-3	SS32-2
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18:10-18:30	367				379			392	397	402									
19:30-22:00	Banquet (City Hall)																		



ICSV13 - Vienna

**The Thirteenth International Congress
on Sound and Vibration**

Vienna, Austria, July 2-6, 2006

Tuesday
July 4, 2006

08:30 – 09:20

PS3	Plenary Session 3 Chairperson: M. CROCKER	AudiMax
08:30	Keynote Lecture Sound barriers and environmental impact studies Arenas, J.*	3

09:30 COFFEE BREAK

10:00 – 12:00

RS03-3	Active Noise and Vibration Control Chairpersons: G. BIRLIK, P. BRATU	H1
10:00	Low frequency performance enhancement of pneumatic isolator by time delay control Oh, K.*; Shin, Y.; Lee, J.; Kim, K.	185
10:20	Analysis of the vibration isolation characteristics in case of elastic systems having polygonal shape Bratu, P.*; Nastac, S.	186
10:40	Dynamic analysis of a tracked vehicle with hydrogas suspension Sujatha, C.*; Ravi Shankar, M.	187
11:00	Dynamic characteristics of platform with SMA spring suspension Lee, C.*; Jwo, H.	188
11:20	Fuzzy finite-element modeling of magnetorheological dampers for smart suspension system of road vehicles Yasrebi, N.*	189
11:40	Multi objective optimization of vehicle suspension parameters Sujatha, C.*; A.S.S. Siva Ram, A.	190

RS09-1	Duct Acoustics Chairpersons: P. BOREJKO, I. DOMBI	H2
10:00	Evaluation of silencers Kucera, M.*; Novy, R.	191
10:20	Pressure waves in a layered elastic tube with viscoelastic liquid Levitsky, S.*; Bergman, R.; Haddad, J.	192
10:40	A reliable root finder for systems of coupled equations: application to eigenvalues in duct acoustics Carrilho, J.*	193
11:00	Study on destabilization of thermal acoustic oscillation Niwa, S.; Sato, Y.; Kanki, H.*	194
11:20	Sidlab: new 1D sound propagation simulation software for complex duct networks Elnady, T.; Åbom, M.*	195

RS14-3	Low-Frequency Noise and Vibration Chairpersons: D. BLISS, S.A. MCINERNEY	H3
10:00	A comparison study between speed control dip and speed control hump in terms of their effect on human health and comfort Khorshid, E.*; Almesri, M.	196
10:20	Determination of damping layer thickness for maximum modal loss factor of sandwich plate in low frequency range Nam, D.*; Kim, K.	197
10:40	Design of low frequency sound shield based on rigid body resonance Zhao, H.*; Liu, Y.; Wen, X.; Wen, J.; Yu, D.	198
11:00	A low frequency fiber optic vibration sensor Yung-Li, L.*; Mao-Hsiung, C.; Wu-Wen, L.	199
11:20	Infra-sound calibration of measurement microphones Frederiksen, E.*	200
11:40	An efficient model for calculating vibration from a railway tunnel buried in a half-space Hussein, M.*; Gupta, S.; Hunt, H.; Degrande, G.; Talbot, J.	201

RS01-3	Acoustic Signal Processing Chairpersons: R. FAIRBROTHER, H. WADA	H4
10:00	Welded steel metallurgical and mechanical characteristic determination using ultrasonic analysis Faiza, B.*; Sonia, D.; Rafik, H.; Ali, B.	202
10:20	A correlation analysis between sound and magnetism for wavy environment around VDT with attachment of tecnoAO Fujita, Y.*; Ohta, M.	203
10:40	The use of MEMS cochlear microphone 'Fishbone' for arbitrary complex filtering and Hilbert transform Ando, S.*; Ono, N.; Ikeuchi, N.	204
11:00	Source audio coding in digital radio mondiale Horvat, M.*; Domitrovic, H.; Kurjak, M.	205
11:20	An electrical frequency modulation for the increase of velocity measurement in a heterodyne laser interferometer Choi, H.*; La, J.; Park, K.	206
11:40	Annoyance of sound generated by a piano in superimposed rooms Barbaro, S.*; Caracausi, R.	207

RS07-3		H5
Computational Acoustics Chairperson: G. MICCOLI		
10:00	An alternative method for solving the frequency equation and plotting the dispersion curves Enjilela, E.*; Honarvar, F.; Sinclair, A.	208
10:20	A partition of unity formulation for the convected wave equation in axisymmetric unbounded domains Mertens, T.*; Bouillard, P.; Astley, J.; Gamallo, P.	209
10:40	Modelling wave propagation in thin plates for the localization of tactile interactions Rovetta, D.*; Ribay, G.; Sarti, A.; De Sanctis, G.; Catheline, S.	210
11:00	A semi-analytical solution for viscothermal wave propagation in narrow gaps with arbitrary boundary conditions Wijnant, Y.*; van Blijderveen, M.; de Boer, A.	211
11:20	Sound propagation over arbitrary surfaces with varying impedance Spivack, M.*; Rath-Spivack, O.	212
11:40	Theoretical and experimental research on the control of vibration of overhead line conductors Migdalovici, M.*; Onisoru, J.; Videa, E.; Albrecht, A.	213

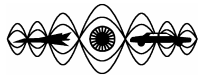
RS30-3		H6
Underwater and Ship Acoustics Chairpersons: N. KESSISSOGLU, A. NILSSON		
10:00	Attenuation of sounds propagating through a bubble screen Huang, C.*; Tien, T.	214
10:20	Prediction of the noise level generated by the turbulent boundary layer on board a fast ship Ciappi, E.*; Magionesi, F.	215
10:40	Reduction of the radiated noise from a submarine under excitation from the propeller-shafting system using a resonance changer Kessissoglou, N.*; Dylejko, P.	217
11:00	Sound generation by a free surface piercing cylinder Avital, E.*; Yu, G.; Williams, J.	218
11:20	Dynamic coupled structural-acoustic-piezoelectric finite element analysis of a layered 1-3 composite, half-wavelength resonator underwater transducer array Koch, R.*	219

RS18-3		H7
Modal Analysis Chairpersons: B. MACE, K. SETO		
10:00	Vibration reduction of the three-cylindered engine driven tractor Lee, J.*; Kim, W.; Park, W.	220
10:20	Improvement of powertrain characteristics using hybrid CAE technology Lai, K.*; Yang, C.	221
10:40	Dynamic characterization of flexible matrix composite driveshaft Shin, E.*	222
11:00	Experimental modal analysis of radial tires under different boundary conditions Kindt, P.*; De Coninck, F.; Sas, P.; Desmet, W.	223
11:20	Modal test of the 2nd stage of Korea space launch vehicle Seo, S.*; Jeong, H.; Youn, S.; Park, S.; Jang, Y.	224
11:40	Local peak frequencies and their damping factors for vibro-acoustic transmission in a Japanese-style house Shibayama, H.*; Tang, Y.	225

RS16-1		H8
Measurement Techniques Chairpersons: E. CARLETTI, J. TALBOT		
10:00	Blind deconvolution of acoustical sources in dynamic, noisy, propagation channels Roan, M.*	226
10:20	Modal identification from experiments of inhomogeneous structures using an extended Karhunen-Loeve decomposition Iemma, U.*; Sciuto, S.; Diez, M.	227
10:40	Differential biphas shift keying (DBPSK) using airborne sound for data communication Mizutani, K.*; Odanaka, I.; Mizutani, K.; Wakatsuki, N.	228
11:00	Regularisation methods applied to deconvolution problems in real-time nearfield acoustic holography Paillasser, S.*; Pascal, J.; Thomas, J.	229
11:20	Consideration about effectiveness on magnified cross-correlation analysis in frequency domain by detection of underground piping Ha, E.*; Kawamura, Y.; Mizutani, K.	230

RS05-3		S9
Architectural Acoustics Chairperson: A. CARVALHO		
10:00	Study of the acoustic and psychoacoustic parameters in the audition rooms, dependence with the distance Cerdá, S.; Giménez, A.; Romero, J.; Cibrian, R.; Miralles, J.; Segura, J.*; Navasquillo, J.; Lacatis, R.	231
10:20	Correlations between acoustics and psychoacoustics room parameters Cerdá, S.; Giménez, A.; Romero, J.; Cibrian, R.; Miralles, J.; Segura, J.*; Navasquillo, J.; Lacatis, R.	232
10:40	Reproducibility in interlaboratory impact sound insulation measurements Carvalho, A.*	233
11:00	Acoustical quality of indoor spaces: analysis of the influence of design and building materials Barbaro, S.*; Caracausi, R.	234
11:20	Integrated analysis of thermo acoustic panels Bauzer Medeiros, E.*; Rodrigues, E.	235
11:40	Sound transmission through lightweight gypsum board panels Singh, M.*; Sharma, O.; Mohanan, V.	236

RS27-1		S10
Sound Quality and NVH Chairperson: R. KIRBY		
10:00	Low noise design of diesel engine induced by piston slap Suganuma, N.*; Yoshizumi, K.; Honda, I.; Ohta, K.	237
10:20	Profile modification of hypoid gear to reduce a gear whine noise of the axle system in a passenger van Lee, S.*; Kim, S.; Yu, D.	238
10:40	Optimization of automotive liners for reduction of noise and vibration transmission through car body Markowicz, A.; Subic, A.*; Wang, X.	239
11:00	Validation of sound models in the car Bisping, R.*; Thoma, G.; Reichle, M.; Zeitler, A.	240



SS15-3	Aeroacoustics Organiser: S. KAJI	S11	SS12-3	Noise & Vibration Control in Vehicles Organiser: N. IVANOV	S12
10:00	Numerical evaluation and experimental comparison of airframe noise for the optimization of next generation aircraft design Scarselli, G.*	241	10:00	Noise & vibration control on board of luxury passenger ships Francesco, D.*; Enrico, L.	247
10:20	Absolute instability computations for the prediction of tonal slat noise Longueteau, F.*; Brazier, J.	242	10:20	Trend analysis of vibration parameters marine gas turbine engines Grzadzila, A.*	248
10:40	Optimal distribution of surface impedance for reducing wing noise Akishita, S.*	243	10:40	Vibroacoustic testing on helicopters in operating conditions Vecchio, A.*; Valent, L.; Janssens, K.; Berthe, A.	249
11:00	Sound generation from tapered cylinder Hayashi, H.*; Kodama, Y.; Fukano, T.	244	11:00	Implementation of a GPS based pass by measurement system Piana, E.*; Piana, G.	250
11:20	Account for elasto-inertial properties of frames at evaluation of noise inside aircraft cabin Efimtsov, B.*; Lazarev, L.	245	11:20	A study of the interface pressure distribution between pad and rotor Ashraf, N.*; Talbot, C.; Fieldhouse, J.	251
11:40	Design of automobile components for the minimization of aeroacoustic noise Kingan, M.*; Pearce, J.	246	11:40	Superposition of piezoelectric actuation in smart structures control and optimization Yousefi-Koma, A.*; Haddadi, S.	252
SS22-1	Inverse Problems in Vibro-Acoustics Organisers: A. SEYBERT, J.-G. IH	S13	RS22-3	Non-Linear Acoustics and Vibration Chairperson: C.-K. SUNG	S14
10:00	Improved regularisation criteria for inverse sound source reconstruction Chiesa, L.; Nijman, E.*	253	10:00	Response of structures subjected to horizontal-vertical random excitations Orabi, I.*	259
10:20	Source reconstruction using inverse spherical wave spectrum fitting Nijman, E.; Machetta, I.*	254	10:20	Moored dock under random waves: a stochastic perturbation and linearization technique Culla, A.*; Massi, F.	260
10:40	On number and position of the equivalent sources in scattering by simple geometry bodies Gounot, Y.; Musafir, R.*	255	10:40	Damping across the length scales Chiroiu, V.*; Munteanu, L.	261
11:00	Design of source array by inverse approach Cho, W.*; Ih, J.	256	11:00	Non deterministic seismic excitation of structures of inelastic behavior Brasil, R.; Corbani, S.*	262
11:20	Wavenumber-frequency analysis in underwater acoustic arrays Brown, A.*; Deeks, J.	257	11:20	Nonlinear dynamic analysis of a beam by the smoothed particle hydrodynamics Chou, Y.*	263
11:40	The synthesis of a diffuse sound field with a near-field array of loudspeakers Bravo, T.; Maury, C.*	258	11:40	Excitation of nonlinear normal shearing waves in crystal half-layer Kurennaya, K.*	264
SS06-3	Combustion Noise Organisers: M. OCHMANN, M. HECKL, R. PISCOYA	S15	SS01-3	Active Control of Sound Organiser: M. PAWELCZYK	S16
10:00	Separation of variables for nonlinear Navier-Stokes equation in cylinder coordinates Shermenev, A.*	265	10:00	Nonuniform signal sampling for active sound control Czycz, K.*	271
10:20	Towards active stabilization of thermo-acoustic instabilities in laminar combustion van den Boom, J.*; Lopez, I.; Schreel, K.; de Goey, L.; Nijmeijer, H.	266	10:20	Inexpensive implementation of active noise control systems for one-dimensional duct with application to a ventilating system Kobayashi, Y.*; Fujioka, H.	272
10:40	The Rijke tube: Green's function and stability analysis Heckl, M.*; Howe, M.	267	10:40	The acoustic window - a new local method for global active noise control Kletschkowski, T.*; Sachau, D.; Böhme, S.; Breitbach, H.	273
11:00	Acoustic and stronger pressure wave interactions with flames McIntosh, A.*	268	11:00	First investigations on active noise control applied to daybeds Kletschkowski, T.*; Sachau, D.; Sommer, J.	274
11:20	Experimental investigation of acoustic excitation by heat release rate fluctuations in a non-premixed half-dump combustor Shreenivasan, O.; Chakravarthy, S.*; Dreizler, A.; Janicka, J.	269	11:20	Active noise control for high frequencies Kaymak, E.*; Atherton, M.; Rotter, K.; Millar, B.	275
11:40	Experimental methods of investigations of the role of a gas vortex motion in the mechanism maintaining acoustic oscillations Samsonov, V.*	270	11:40	Acoustic efficiency limitation using add-on ACLD treatments: numerical modeling and experimental results Viscardi, M.*; Amoroso, F.; Lecce, L.	276

RS17-2	Mid and High Frequency Methods Chairperson: S. LEWY	S17
10:00	Improving sea prediction of structure-borne noise by describing junctions details with FE Cotoni, V.*; Shorter, P.; Kuba, T.	277
10:20	A hybrid sea-measurement technique to predict driver's ear SPL from energy flow through a vehicle dash and transfer functions Musser, C.*; Moron, P.	278
10:40	Analyses and assessment of the sensitivity of trim parameters on sea simulation for interior noise reduction Brandl, S.*; Hauer, I.; Priebisch, H.; Bartosch, T.; Volkwein, S.	279
11:00	Measurements and sea modeling of the sound transmission of the ribbed-stiffened panels Gomes, C.*; Gerges, S.*	280
11:20	Prediction of energy levels of simple plate systems using WIA based on experimental SEA parameters Bayod, J.*; Kamata, M.; Yamazaki, T.	281
11:40	SEA-like energy and variance prediction from free interface subsystem modal models Ji, L.*; Mace, B.	282

RS29-1	Transportation Noise Chairpersons: C.-C. CHENG, N.V. TYURINA	S18
10:00	A two-microphone method for the determination of the acoustic source height of a moving rectilinear source above a flat ground with impedance discontinuity Ecotiere, D.*; Guntzer, F.; Dutilleux, G.	283
10:20	An applied research on railway noise in urban areas Patania, F.*; Gagliano, A.; Nocera, F.	284
10:40	Noise from trams – source identification and effects of noise mitigation measures Frid, A.*; Ognar, M.	285
11:00	The effect of modal damping on brake squeal instability Massi, F.*; Sestieri, A.; Baillet, L.	286
11:20	Experimental study for rubber stick/slip Kim, Y.*; Lee, G.; Lee, S.	287

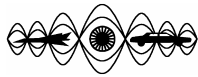
RS19-2	Musical Acoustics Chairperson: G. WIDHOLM	S19
10:00	The vibrations of the tenor steelpan: a finite element study Bridge, J.*	288
10:20	The tuning of vocal tract resonances in singing and in playing the didjeridu Smith, J.*; Wolfe, J.	289
10:40	Acoustic spectrum and timbre variation over the attack in the txistu Elejalde-García, M.*; Macho-Stadler, E.; Agos-Esparza, A.	290
11:00	On acoustical properties of ancient Chinese musical bells Pan, J.*; Li, X.; Tian, J.	291
11:20	Audibility of tower bells - further experiments and calculations Newland, D.*	292
11:40	Correlation between subjective descriptors and objective parameters of theatres and auditoria acoustics simulated with binaural sound system Capra, A.*; Binelli, M.; Marmioli, D.	293

12:00 **LUNCH**

13:30 – 14:20

PS04	Plenary Session 4 Chairperson: F. JACOBSEN	AudiMax
13:30	Keynote Lecture Compressor noise control Wang, S.*	4

14:20 **Invitation to ICSV14** AudiMax



15:00 – 16:50

RS03-4	Active Noise and Vibration Control Chairpersons: G. BIRLIK, P. BRATU	H1	SS05-3	Pattern Recognition in Acoustics and Vibration Organiser: L. GELMAN	H2
15:00	Semi-active train bogie suspensions using skyhook dampers Fotoohi, A.*; Yousefi-Koma, A.	294	15:00	Damage tracking in variable operating conditions Chelidze, D.*; Liu, M.	298
15:20	Heave motion control of TLP under wave load using tuned mass damper Tabeshpour, M.*; Golafshani, A.; Seif, M.	295	15:20	Averaging the symptoms in multidimensional condition monitoring for machines in nonstationary operation Cempel, C.*; Tabaszewski, M.	299
15:40	Surge motion control of TLP under wave load using tuned mass damper Tabeshpour, M.*; Golafshani, A.; Seif, M.	296	15:40	Trending analysis of defective rolling element bearings using a morphological index Antoniadis, I.*; Yiakopoulos, C.; Patargias, T.	300
16:00	Magneto-rheological fluid dampers modeling: simulation and experiment Yasrebi, N.*	297	16:00	The pattern recognition in analysis of vibroacoustic signal Radkowski, S.*; Dybala, J.; Gontarz, S.	301
RS02-1	Acoustics and Vibration Theory Chairperson: J.P. ARENAS	H3	RS01-4	Acoustic Signal Processing Chairpersons: R. FAIRBROTHER, H. WADA	H4
15:00	A study on the vibration characteristics of circular ring with multiple local mass and stiffness deviations Park, H.*; Lee, J.	302	15:00	Performance characterization of racing motorcycles by exhaust noise measurement Battaglia, C.*; Bregant, L.; Zugna, A.	306
15:20	Dynamic reliability analysis of a stochastic structure with response surface method Chen, Y.*	303	15:20	Low-latency virtual acoustics for live music performance and recording Woszczyk, W.*	307
15:40	Modelling of oscillatory systems with viscous and dry-friction damping under real random kinematical excitation Stein, G.*; Zahoranský, R.; Múčka, P.	304	15:40	Round robin tests Petraskova, V.*; Dolejsi, J.	308
16:00	Vibrating systems with random damping: an analytical solution based on normal modes Heinkele, C.*; Pernot, S.; Sgard, F.; Lamarque, C.	305	16:00	Horizons for an aeroacoustic research platform by European co-operation in Romania Rugescu, R.*; Slavu, B.; Morosanu, C.	309
RS07-4	Computational Acoustics Chairperson: G. MICCOLI	H5	RS08-1	Condition Monitoring and Vibration Testing Chairperson: G. ZUSMAN	H6
15:00	Income effect in the railway galleries Venditti, A.*; Coppi, M.	310	15:00	Rotor dynamic analysis of a system with a flexible shaft and journal bearings Herfat, A.*	314
15:20	Critical comparison of viscoelastic damping, electrorheological fluid and magnetorheological fluid core damping in cantilever skew plates Narayana, V.*	311	15:20	A comparative study of feature extraction methods for crack detection in rotating machines operating at steady state Luo, Y.*; Daley, S.	315
15:40	Numerical model for the interaction of a gas bubble with a strong acoustic field Teterev, A.*; Doinikov, A.; Misychenko, N.; Rudak, L.	312	15:40	Broken rotor bar detection without motor loading ShamsMosavi, S.*; Poshat, J.; Zarei, J.	316
16:00	What happens to frequency band-gaps width in finite repetitive medium? Matos Neves, M.*	313	16:00	Modeling considerations for the dynamic behavior of a rigid rotor supported by hydrodynamic journal bearings L. Santos, F.; M. Duarte, M.*; C. Faria, M.; C. Eduardo, A.	317
RS18-4	Modal Analysis Chairpersons: B. MACE, K. SETO	H7	RS16-2	Measurement Techniques Chairpersons: E. CARLETTI, J. TALBOT	H8
15:00	Dynamic analysis of large in-space deployable membrane antennas Fang, H.*; Yang, B.; Ding, H.; Hah, J.; Huang, J.	318	15:00	Defect size estimation in pipes by measuring the group velocity of guided wave Yang, S.*; Li, B.; Cheng, J.	322
15:20	Application of periodic structures in MEMS Ahn, T.*; Shkel, A.	319	15:20	Denoising ultrasonic signals using wavelet transform processing San Emeterio, J.*; Pardo, E.; Rodriguez, M.; Ramos, A.	323
15:40	Influence of bar spacing and free-stream turbulence on flow-induced vibration of trashracks Pollak-Reibenwein, C.*; Drobir, H.	320	15:40	Optimized filter applied to swept sine technique for SNR improvement Preto Paulo, J.*; Martins, C.; Bento Coelho, J.	324
16:00	Linear normal modes of thermally prestressed planar beams including prebending effects Treysede, F.*	321	16:00	Combined acoustic and vibration monitoring of rotating systems Bauzer Medeiros, E.*; Torre e Silva, L.	325

RS05-4		S9
Architectural Acoustics Chairperson: A. CARVALHO		
15:00	How important is watertightness for a room acoustic model? Xu, J.*; Shimada, S.	326
15:20	Applied virtual sources method Grubesa, S.*; Grubesa, T.; Domitrovic, H.	327
15:40	Sound field reproduction in closed spaces using the boundary element method Stefanakis, N.*; Sarris, J.	328

RS27-2		S10
Sound Quality and NVH Chairperson: R. KIRBY		
15:00	Specific loudness expression of quasi-steady sounds by considering percentile distribution Kim, D.*; Wang, S.	329
15:20	Prediction of engine sound and sound quality control using wavelet transform Yoshizumi, K.*; Ohta, K.; Honda, I.; Ajiro, K.	330

RS04-1		S11
Aero-Acoustics and Aviation Noise Chairperson: R. PAUROBALLY		
15:00	Matching the aircraft noise to a target sound: a novel approach for the optimal design under community noise constraints lemma, U.*; Diez, M.; Marchese, V.	332
15:20	Numerical investigations for optimizing the aero-acoustical design of modern LP-turbines Traub, P.*; Gründel, H.; Gautier, S.	333
15:40	Psychometric analysis of stationary aircraft sounds Bisping, R.*; Dickson, C.; Khan, S.	334
16:00	Development of low-noise ducted-fan tail rotor for helicopter antitorque system Chung, K.*; Kang, H.; Song, K.; Hwang, C.; Joo, G.	335

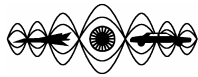
SS22-2		S13
Inverse Problems in Vibro-Acoustics Organisers: A. SEYBERT, J.-G. IH		
15:00	Detection of damage in beam structures using changes in natural frequencies Zhu, W.*; Xu, G.; Emory, B.	336
15:20	Hybrid modelling of a helicopter gearbox Vecchio, A.*; Janssens, K.; Gallina, A.; Cenedese, F.	337
15:40	Inverse methods for identification of cables parameters with applications Migdalovici, M.*; Onisoru, J.; Videa, E.; Albrecht, A.	338
16:00	Inverse model of beam for boundary condition identification Majkut, L.*; Engel, Z.	339

RS22-4		S14
Non-Linear Acoustics and Vibration Chairpersons: J. BÖS, H. HUNT		
15:00	Analysis of nonlinear forced vibration using component mode synthesis method Kawamura, S.*; Naito, T.; Minamoto, H.; Zahid, H.	340
15:20	Mode localisation in nonlinearly coupled cables Bridge, J.*	341
15:40	Moderately large flexural vibrations of layered panels with initial imperfections Adam, C.*	342
16:00	Mechanized mathematics modelling and algorithm analysis for 200 MW turbine set Wang, L.*	343

SS21-1		S15
Thermo Acoustics and Structure Interaction in Gas Turbine Combustors Organisers: J. KOK, W. POLIFKE		
15:00	Diagnostic and control of lean premixed combustion with alternative fuels Ballester, J.*; Hernandez, R.; Sanz, A.; Smolarz, A.	344
15:20	The interaction of combustion pressure oscillations and liner vibrations Pozarlik, A.*; Kok, J.	345
15:40	State-space modelling of thermoacoustic systems for stability analysis and time-domain simulation Paschereit, O.; Moeck, J.*; Bothien, M.	346
16:00	Measuring the flame transfer function of turbulent non-premixed syngas flames Pater, S.*; Kok, J.; van der Meer, T.	347

SS01-4		S16
Active Control of Sound Organiser: M. PAWELCZYK		
15:00	The performance of active control of sound and vibration in a fully-coupled structural-acoustic system using different reference sensors Mohammad, J.*; Elliott, S.	348
15:20	Improved broadband performance of strain-based continuous radiation sensors Anthony, D.*; Simón, F.	349
15:40	Control of supersonic jet noise using a mesh screen Kweon, Y.*; Miyazato, Y.; Aoki, T.; Kim, H.; Setoguchi, T.	350

SS08-1		S17
Dynamic of Robotic Systems and Applications Organisers: D. COJACARU, D. MARGHITU		
15:00	An optimization method for reducing residual vibrations of compliant manipulators Incerti, G.*	351
15:20	Damping estimation via energy-dissipation method Liang, J.*	352
15:40	Investigation of vibration phenomena in LCD transfer robots undergoing low speed operation Yoo, H.*; Cho, P.; Lee, K.; Lim, H.; Kwon, S.	353
16:00	Open kinematic chains with multiple impacts Marghitu, D.*; Dupac, M.	354



RS29-2		S18
Transportation Noise Chairpersons: C.-C. CHENG, N.V. TYURINA		
15:00	Prediction of the attenuation given by a baffled highway using a scale model Serra, M.*	355
15:20	Modeling the noise generated by a vehicle moving behind a noise barrier Fuchs, L.*; Aberg, M.; Szasz, R.	356
15:40	Noise climate in the seaport of Trapani: measure and evaluation Barbaro, S.*; Caracausi, R.	358

SS32-1		S19
Lawnmowers, Construction Machinery, and other Outdoor Equipment Organiser: M. BOCKHOFF		
15:00	Psychoacoustic characterisation of lawnmowers versus standard a-weighted sound power and comparison with virtual prototyping results Besombes, M.*; Goth, Y.	359
15:20	Lamonov: lawnmower noise and vibration control - first results Tetteroo, P.*; Bockhoff, M.	360
15:40	Analysis of noise control measures on outdoor machinery using EQUIP+ Dittrich, M.*	361
16:00	Noise from construction site: point of view of a contractor Aubrit, M.*; Autuori, P.	362

16:20 **COFFEE BREAK**

16:50 – 18:30

RS03-5		H1
Active Noise and Vibration Control Chairpersons: G. BIRLIK, P. BRATU		
16:50	Magnetorheological damper control systems using the programmable logical controllers Vladareanu, L.*; Sireteanu, T.	363
17:10	Specific requirements for the rigidity and damping in case of passive base isolating systems Bratu, P.*	364
17:30	Active control in flexible plates with piezoelectric actuators using linear matrix inequalities Bueno, D.*; Marqui, C.; Cordeiro, L.; Lopes Júnior, V.	365
17:50	Feedforward and feedback H2 and HINF controllers for active vibration control of a PZT laminated thin plate Kouhi, S.*; Montazeri, A.; Poshtan, J.	366
18:10	Optimization of the size, position and number of actuators and sensors for active vibration control of a piezoelectric laminated thin plate Kouhi, S.*; Montazeri, A.; Poshtan, J.	367

SS05-4		H2
Pattern Recognition in Acoustics and Vibration Organiser: L. GELMAN		
16:50	Classification strategies for audio signals using wavelet analysis and artificial neural networks McLachlan, N.*; Kumar, D.	368
17:10	Novel signal processing techniques for certification scheme for vibro-acoustical condition monitoring Gelman, L.*; Kolbe, P.	369

RS02-2		H3
Acoustics and Vibration Theory Chairperson: J.P. ARENAS		
16:50	Vibration analysis of systems involving uncertain parameters Rao, S.*	370
17:10	A 3D-stochastic model for simulating vibrations in soil layers Kreuzer, W.*; Waubke, H.; Balazs, P.	371
17:30	Wave propagation in layered orthotropic media: a component-wise Fourier approach Kramer, F.*; Waubke, H.	372
17:50	Free vibration analysis of cylindrical shells with arbitrary boundary conditions Wen, L.*; Hongan, X.	374

SS09-1		H5
Nonlinear Acoustics and Vibration Organiser: W. GAN		
16:50	Nonplanar nonlinear vibration analysis of external excited the circular cantilever beam Kim, M.*; Cho, C.; Cho, H.; Lee, H.	375
17:10	Application of counterpropagating nonlinear waves to inhomogeneous prestress characterization Ravasio, A.*	376
17:30	Dynamic phenomena in the plate with the sudden stratification Vladimir, G.*; Yuri, S.; Vladimir, S.	377
17:50	Influence of gyroscopic effect on the critical speed of the rotation of the heterogeneous rod Yuri, S.*; Vladimir, G.; Svetlana, O.	378
18:10	On the formation of classical and non-classical shocks in a tube lined with Helmholtz resonators Scheichl, S.*; Kluwick, A.	379

RS08-2		H6
Condition Monitoring and Vibration Testing Chairperson: G. ZUSMAN		
16:50	Coupled lateral and torsional vibrations in misaligned rotors Gomez De Leon, F.*; Meroño Perez, P.	380
17:10	An experimental study of the effects of engine torque variation on the power spectrum of a helicopter transmission Sparis, P.*; Vachtsevanos, G.	381
17:30	Detection of breathing cracks in a frame structure using dynamic response Kamiya, K.*; Yasuda, K.	382
17:50	Vibration data analysis for prognosis of the planetary gear plate crack Wu, B.*; Vachtsevanos, G.	384

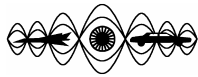
RS18-5		H7
Modal Analysis Chairpersons: B. MACE, K. SETO		
16:50	Vibration modes of short cylinders: frequency crossings and mode shapes Bayón, A.*; Nieves, F.; Gascón, F.	385
17:10	Modal identification and vibration control using mass-spring and cantilever-beam absorbers Silva-Navarro, G.*; Vazquez-Gonzalez, B.; Ortega-Cobos, O.; Rios-Gutierrez, M.	386
17:30	Calculation of logarithmic decrement by morlet wavelet of a decay curve Prokofiev, A.*; Lenchine, V.; Shakhmatov, E.	387

RS16-3		H8
Measurement Techniques Chairpersons: E. CARLETTI, J. TALBOT		
16:50	Vibration analysis using high speed digital image correlation Siebert, T.*; Splitthof, K.; Becker, T.; Krupka, R.	388
17:10	Standardized crumbling noise measurement Dekoninck, L.*; Botteldooren, D.	389
17:30	A new online rotor condition monitoring method using FBG sensors and no telemetry system Hwang, Y.*; Lee, I.; Lee, J.; Lee, S.	390
17:50	Defects detection in welds using ultrasonic analysis Sonia, D.*; Faiza, B.; Rafik, H.	391
18:10	Acoustical measurement accompanying tensile test: new modality for non-destructive testing and characterization of sheet materials Mfoumou, E.*; Rudenko, O.; Hedberg, C.; Kao-Walter, S.	392

SS30-1		S9
Architectural Acoustics Organiser: J. KANG		
16:50	On the subjective assessment of church acoustics Martellotta, F.*; Skaug, C.	393
17:10	The acoustic field under the dome in a central plan church Ricciardi, P.*; Magrini, A.	394
17:30	Speech generated by crowds: a preference study Novo, P.*	395
17:50	Acoustic comfort, quality and atmosphere in 'non-acoustic' spaces - case studies in railway stations and open plan offices Kang, J.*	396
18:10	The generation and 3-dimensional display of auditorium forms by means of the wvw Oldham, D.*; Hetherington, R.; Farrimond, B.	397

RS21-1		S10
Noise Source Identification Chairperson: I. MORIOKA		
16:50	Minimising the number of microphones required for characterisation of distributed source regions Holland, K.*; Nelson, P.	398
17:10	Source identification enhancement using array design with quasi-random configurations Wang, P.*; Johns, M.; Callahan, D.	399
17:30	Quantifying the correlation between tonal noise sources Sherman, P.*	400
17:50	Identification method of plural sound sources by using measured values with error and power spectra identification Nakagawa, N.*; Sekiguchi, Y.	401
18:10	The application of inverse method to sound sources' measurements industrial conditions Stryczniewicz, L.*; Engel, Z.	402

RS04-2		S11
Aero-Acoustics and Aviation Noise Chairperson: R. PAUROBALLY		
16:50	Numerical simulation of rotor-stator interaction noise generation and propagation in an engine duct with segmented liners Lu, Y.*; Yu, Y.; Hu, Z.	403
17:10	Blast wave and afterburning at ignition of rocket engines Varnier, J.*; Prévot, P.; Dunet, G.; Barat, M.; Mazin, B.	404
17:30	Study of aero-acoustic performance of forward slanted perforated tube field: noise control Seto, K.*; Khan, M.; Teramoto, K.; Kumamoto, A.; Kakinaga, K.	405
17:50	Numerical model of aircraft gas turbine engine (based on experimental data of dynamical compliances of engine body) Baklanov, V.*; Denisov, S.	406



RS25-1	Signal Processing Chairpersons: A. CIOLFI, F. JACOBSEN	S12		SS22-3	Inverse Problems in Vibro-Acoustics Organisers: A. SEYBERT, J.-G. IH	S13	
16:50	Increasing the average transmitted power in DRM broadcasting systems using the multiband audio compressor-limiter algorithms for baseband signal Grubesa, S.; Grubesa, T.*; Domitrovic, H.	407		16:50	Comparison of a diffracting and a non-diffracting cylindrical microphone array Johnson, M.*; Carneal, J.; Gillett, P.	411	
17:10	Adaptive design of linear-phase maximally flat filters for digital audio Dadic, M.*; Sruk, V.; Somek, B.	408		17:10	Inversion-free sound source reconstruction Maynard, J.*	412	
17:30	Early fault detection in a ball bearing using minimum variance cepstrum Park, C.*; Choi, Y.; Kim, Y.	409		17:30	Force prediction via the inverse FRF using experimental and numerical data from a demonstrator with tuneable nonlinearities Oosterhuis, E.*; Eidhof, W.; v.d. Hoogt, P.; de Boer, A.	413	
17:50	Analysis and study of the ultrasonic structural noise signal for material characterisation Bettayeb, F.*; Boussiha, K.; Benachir, D.	410					
RS22-5	Non-Linear Acoustics and Vibration Chairpersons: J. BÖS, H. HUNT	S14		SS28-1	Intelligent Methods of Active Noise and Vibration Control Organiser: O. TOKHI	S16	
16:50	Identification and quantification of the nonlinear vibration characteristics of the commercial PWR nuclear fuel assembly Lee, K.*; Yoon, K.; Song, K.; Kang, H.; Song, K.	414		16:50	Neuro-modelling of flexible systems: structure optimisation and learning using evolutionary algorithms Alam, M.*; Shaheed, M.; Tokhi, M.	419	
17:10	Coupled vibrations of an axially moving web and rolls with time dependent parameters Frondelius, T.*	415		17:10	Modelling and vibration control of a twin rotor system: a particle swarm optimisation approach Alam, M.*; Tokhi, M.	420	
17:30	Nonlinear dynamic analysis of a motion transformer mimicking a hula hoop Sung, C.*; Chao, P.; Wang, C.	416		17:30	Identification of rotor unbalance in minimax statement Menshikov, Y.*	421	
SS08-2	Dynamic of Robotic Systems and Applications Organisers: D. COJACARU, D. MARGHITU	S17		RS29-3	Transportation Noise Chairperson: N.V. TYURINA	S18	
16:50	Real time control systems of the compliant robots with insertion functions Vladareanu, L.*	422		16:50	Noise control at design and construction of linear transportation objects Butorina, M.*; Minina, N.	426	
17:10	The finite element modeling of the dynamic response of the mechanisms Nicolae, D.*; Mirela, C.	423		17:10	Noise level control on a busy intersection Grubesa, S.*; Domitrovic, H.; Horvat, M.	427	
17:30	Contributions to the analysis of the dynamic response a hexapode type mobile robot Nicolae, D.*; Mirela, C.	424		17:30	A comparative analysis of urban traffic noise models: Kuwait urban area case Koushki, P.*	428	
17:50	Fuzzy based image processing for robotic vision Cojocaru, D.*; Tanasie, R.	425		17:50	Reduction of noise from transport in relation to directive 2002/49/EC Cholava, R.*; Dvorakova, P.; Smekal, P.	429	
SS32-2	Lawnmowers, Construction Machinery, and other Outdoor Equipment Organiser: M. BOCKHOFF	S19					
16:50	Noise reduced construction site - planning and supervision: a case study Hintzsche, M.*; Neuhofer, R.	430					
17:10	Construction site noise: comparison of predicted and in-situ measured values Trautmann, U.*	431					
17:30	Verification criterion to use in the frame of directive 2000/14/EC Lukovnikova, M.*; Van Dyck, J.	432					
17:50	2000/14/EC directive: some experiences about the measurement uncertainties in relation with the equipment realistic operating condition during the tests Cellard, P.*	433					
19:30	BANQUET					City Hall	