

NDT in Progress – abstracts

Prague, 2005 October 10-12

**Provisional allocation of submitted papers accepted by Scientific Committee
(both sessions and paper allocations may be still subjected to changes)**

Section A Automated NDT data processing

Authors	Title of paper	Sec.	Notes
Kirzhanov D.V. , Avramenko V.G., Lebedev O.V., Budadin O.N.	<i>Automation of heat NDT of buildings</i>	A	"WEMO", Moscow, Russia

Section B Numerical NDT simulations

(F.Schubert)

Authors	Title of paper	Sec.	Notes
Bilgram R. , Stöbel R., Diez- Vazquez M., Migueles J.R., Schimitschek J., Gradolph Ch. Kuehnicke E.	<i>Simulation of heat generation and dissipation during ultrasonic excited thermography</i> <i>Relation between the transient and the harmonic field of ultrasound transducers</i>	B B	EADS Corporate Research Centre Munich, D Dresden University of Technology, D
Mayer Klaus , Langenberg K.J., Marklein R.	<i>Modelling and Imaging for Electromagnetic and Elastic Wave Scattering in Concrete</i>	B	Universität Kassel, D
Schubert F. , Köhler B, Zinin P.	<i>Time-resolved Acoustic Microscopy Simulations for Micro NDE Applications</i>	B	Fraunhofer-Institut IZFP-Dresden, D
Schubert S. ^a , D. Gsell ^b , P. Niemz ^a , M. Motavalli ^b and J. Dual ^c	<i>Numerical simulation of elastic wave propagation in the radial-tangential plane of wooden trunks with and without fungal decay</i>	B	ETH Zürich, CH
Spies M.	<i>Semi-Analytical Modeling Applied to Optimize the Performance of Ultrasonic Inspections</i>	B	Fraunhofer-Institute Saarbruecken, D

Section C Nonlinear and inverse problems in NDE (P.P. Delsanto, S.Hirse Korn)

Authors	Title of paper	Sec.	Notes
Gliozzi A.	<i>2-D Nonlinear models and simulations as a tool for NDE in AERONEWS</i>	C	Politecnico di Torino, I
Goursolle T. , Dos Santos S. et al.	<i>Contact phase modulation measurements in bilayer solids using nonlinear means</i>	C	UFR Blois, F
Hirse Korn S. , Haffner R., Gebhardt W., Arnold W.	<i>Measurement and Evaluation of Nonlinear Ultrasonic Transmission on Adhesive Bonds</i>	C	Fraunhofer IZFP, Saarbrücken, D
Meo M. , Zumpano G., and Polimeno U.	<i>Finite element simulation of wave propagation phenomena in a damaged plate to support development of Non-linear elastic wave spectroscopy (NEWS) techniques.</i>	C	Cranfield University, UK
Delsanto P.P. , Hirsekorn S. and F. Pastrone	<i>The universality of nonclassical nonlinearity and applications to NDE</i>	C	Politech. di Torino, I, IZFP Saabr., D, Univer. di Torino, I

Section D Health Monitoring of integral structures (Prof.Meyendorf)

Authors	Title of paper	Sec.	Notes
Köhler B.	<i>Study of elastic wave propagation for NDT and health monitoring applications</i>	D	Fraunhofer Dresden, D
Obbadi A., Belattar S.	<i>Non-destructive Three-dimensional study of a Delamination of a Wall External surface by the Surface Temperatures Analysis</i>	D or poster	Faculty of Sciences, El Jadida, Morocco
Schubert F.	<i>Acoustic emission tomography – A new imaging technique for structural health monitoring</i>	D	IZFP-Dresden, D.
P. D. Wilcox, G. Konstantinidis, B. W. Drinkwater	<i>Structural Health Monitoring Using Guided Waves: Active and Passive Techniques</i>	D	Univers.of Bristol, UK

Section E Methods based on elastic waves		(Z. Prevorovsky)	
Authors	Title of paper	Sec.	Notes
Algernon D. , Wiggenhauser H.	<i>Experimental investigation of the acoustic wave propagation in concrete structures after impact excitation</i>	E	BAM, Berlin, D
Döring D. , Pfleiderer K, Solodov I. and Busse G.	<i>New opportunities for material characterisation and damage detection with air-coupled and nonlinear ultrasound</i>	E	IPTS, Stuttgart University, D
Längler F. , Schneider E.	<i>Continuum Mechanical Enhancement of the Ultrasonic Residual Stress Analysis for Component Load Estimation</i>	E	IZFP, Saarbrücken, D
LI Yi-bo , JIN Shi-jiu, SHA Ji-le ³ , SUN Li-ying ¹	<i>Study on Ultrasonic Guided Waves in Fluid-filled Pipes Surrounded by Water</i>	E	China;
Maev Roman Gr.	<i>New Generation of High Resolution Acoustic Imaging Technique for Material Characterization and NDT</i>	E	University of Windsor, Ontario, N9B 3P4, Canada
Wendrich A., Krause M., Maierhofer Ch. , Wöstmann J., Milmann B.	<i>Application of ultrasonic and radar tomography for the investigation of the internal structure of masonry</i>	E	BAM , Berlin, D
Prevorovsky Z.	<i>Ultrasonic wave transfer in complex aircraft structure</i>	E	IT ASCR, Prague, CZ

Section F Electromagnetic and radiographic methods		(J. Fiala, J. Šikula)	
Authors	Title of paper	Sec.	Notes
Fiala J. , Šutta P.	<i>X-ray Monitoring of Materials Degradation</i>	F	Westboh.Univ., Plzeň, CZ
Hájek*K. , Šikula J. **	<i>Parametric Ultrasound-Electric Spectroscopy for NDT of Metal Bodies</i>	F	*Univ. of Defence Brno, **BUT Brno
Jae K.Yi	<i>Phase Transformation Measurements by Applied Magnetics</i>	F	POSCO,Kyungbuk, KOREA
Janousek L., Zhenmao Chen, Noritaka Yusa and Kenzo Miya	<i>A novel eddy current testing probe suitable to the inspection of thick structures</i>	F	Tokyo, 110-0008 Japan
Myagotin A. , Helfen L., Banhart J., Baumbach T.	<i>In situ Radiography of Metal Foaming Processes: a Quantitative Analysis</i>	F or poster	Karlsruhe, Grenoble, Berlin
Kiejin Lee	<i>Sensitive Label-free Nondestructive Detection of DNA Hybridization with Near-Field Microwaves</i>	F	Sogang University, Seoul, Korea

Section G Special Imaging and Optical methods		(M. Honlet)	
Authors	Title of paper	Sec.	Notes
Honlet M.	<i>Nondestructive Crack Detection and Evaluation in Silicone Cells and Wafers</i>	G	HONLET Optical Systems GmbH, D
Swiderski W.	<i>Infrared nondestructive testing in military applications</i>	G	Military Institute Zielonka, Poland
Helfen L., Kiel D., Pernot P, Mikulík P., Baumbach T.	<i>Three-Dimensional Imaging of Microsystem and Microelectronic Devices by Synchrotron-radiation Computed Laminography</i>	G	Karlsruhe, Grenoble, Brno D, F, CZ
M. Acebes Pascual, A. Poblete.	<i>Thermographic and Ultrasonic measurement of the effect of humidity in mortar Porosity</i>		Valladolid University España.

Section S Student's and poster presentations		(P. Mazal)	
Authors	Title of paper	Sec.	Notes
Siddiolo A.M. , Maeva A.R. and Maev R.Gr.	<i>Ultrasonic Air-Coupled Methods for Painting Diagnostics</i>	student	Univ.of Windsor Ontario, Canada
Sedlák P. , Hájek K. and Trojanova Z.	<i>Nonlinear spectroscopy of metal samples</i>	student	Brno University of Technology, CZ
Avramenko V.G. , Lebedev	<i>The solution of the inverse problem of</i>	poster	WEMO", Moscow, Russia

O.V., Kirzhanov D.V., Budadin O.N., Avramenko V.G. , Lebedev O.V., Kirzhanov D.V., Budadin O.N., Hefner Š.	<i>nonstationary heat conductivity in multilayer objects</i> <i>Solution of the Inverse Problem of Nonstationary Heat Conductivity Using FFT</i>	poster	"WEMO", Moscow, Russia
Majzner J. , Mori Y, Sedlak P, Sikula J. Matysík, M.	<i>Nonlinear Ultrasonic Spectroscopy of Rock and Ceramic Samples</i> <i>Spectral analysis of EME signal</i> <i>On the effect of additives and admixtures on the cement hydration heat development progress</i>	poster	VUT FEKT UFYZ Brno, CZ Brno University of Technology, CZ Brno University of Technology, CZ
Chlada M. , Blahacek M., Prevorovsky Z. Algernon D. , Wiggenhauser H.	<i>Neural network AE source location based on extracted signal features</i> <i>Identification of short transient signals in impact echo data using the Hilbert Huang transform (HHT)</i>	poster	IT ASCR, Prague, CZ BAM, Berlin, D
Lebedev O.V. , Avramenko V.G. Kirzhanov D.V., Budadin O.N. Stupakov O. ^{1*} , Tomáš I. ¹ , and Skrbek B. ²	<i>Multi-phase heat-mass transfer and calculation of the current position of the front freezing and dew point in the buildings</i> <i>Magnetic Response to Thermal Treatment of Construction Steel in Single-Yoke Magnetizing Set-up</i>	poster	WEMO", Moscow, Russia Institute of Physics, Praha, CZ
Blaháček M. , Převorovský Z., Chlada M. Běhal, J.	Elastic wave propagation in complex aircraft structure Applications of Non-destructive Testing to Investigation of Aircraft Structure Integrity	poster	Institute of Thermomechanics AS CR Aeronautical Research and Test Institute / Prague
Vrhel, J.	Czech partners contribution to the AERONEWS EU project	poster	VZLU, Praha, CZ

2005-07-01