

# NDT in Progress – abstracts

Prague, October 10-12, 2005

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
<b>Kirzhanov D.V.</b> , 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
<b>Bilgram R.</b> , Stöbel R., Diez- Vazquez M., Migueles J.R, Schimitschek J., Gradolph Ch.	<i>Simulation of heat generation and dissipation during ultrasonic excited thermography</i>	B	EADS Corporate Research Centre Munich, D
<b>Kuehnicke E.</b>	<i>Relation between the transient and the harmonic field of ultrasound transducers</i>	B	Dresden University of Technology, D
<b>Mayer Klaus</b> , Langenberg K.J., Marklein R.	<i>Modelling and Imaging for Electromagnetic and Elastic Wave Scattering in Concrete</i>	B	Universität Kassel, D
<b>Schubert F.</b> , Köhler B, Zinin P.	<i>Time-resolved Acoustic Microscopy Simulations for Micro NDE Applications</i>	B	Fraunhofer-Institut IZFP-Dresden, D
<b>Schubert S.</b> <sup>a</sup> , D. Gsell <sup>b</sup> , P. Niemz <sup>a</sup> , M. Motavalli <sup>b</sup> and J. Dual <sup>c</sup>	<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
<b>Spies M.</b>	<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
<b>Gliozzi A.</b>	<i>2-D Nonlinear models and simulations as a tool for NDE in AERONEWS</i>	C	Politecnico di Torino, I
<b>Goursolle T.</b> , Dos Santos S. et al.	<i>Contact phase modulation measurements in bilayer solids using nonlinear means</i>	C	UFR Blois, F
<b>Hirse Korn S.</b> , Haffner R., Gebhardt W., Arnold W.	<i>Measurement and Evaluation of Nonlinear Ultrasonic Transmission on Adhesive Bonds</i>	C	Fraunhofer IZFP, Saarbrücken, D
<b>Meo M.</b> , 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

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

New section – will be completed soon

Authors	Title of paper	Sec.	Notes
<b>Köhler B.</b>	<i>Study of elastic wave propagation for NDT and health monitoring applications</i>	D	Fraunhofer Dresden, D

## Section E Methods based on elastic waves

(Z. Prevorovsky)

Authors	Title of paper	Sec.	Notes
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<b>Algernon D.</b> , Wiggenhauser H.	<i>Experimental investigation of the acoustic wave propagation in concrete structures after impact excitation</i>	E	BAM, Berlin, D
<b>Döring D.</b> , 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
<b>Längler F.</b> , Schneider E.	<i>Continuum Mechanical Enhancement of the Ultrasonic Residual Stress Analysis for Component Load Estimation</i>	E	IZFP, Saarbrücken, D
<b>LI Yi-bo</b> , JIN Shi-jiu, SHA Ji-le <sup>3</sup> , SUN Li-ying <sup>1</sup>	<i>Study on Ultrasonic Guided Waves in Fluid-filled Pipes Surrounded by Water</i>	E	China;
<b>Maev Roman Gr.</b>	<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., <b>Maierhofer Ch.</b> , 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
<b>Prevorovsky Z.</b>	<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
<b>Fiala J.</b> , Šutta P.	<i>X-ray Monitoring of Materials Degradation</i>	F	Westboh.Univ., Plzeň, CZ
<b>Hájek*K.</b> , Šikula J. **	<i>Parametric Ultrasound-Electric Spectroscopy for NDT of Metal Bodies</i>	F	*Univ. of Defence Brno, **BUT Brno
<b>Stupakov O.</b> <sup>1*</sup> , Tomáš I. <sup>1</sup> , and Skrbek B. <sup>2</sup>	<i>Magnetic Response to Thermal Treatment of Construction Steel in Single-Yoke Magnetizing Set-up</i>	F	Institute of Physics, Praha 8, CZ
<b>Jae K.Yi</b>	<i>Phase Transformation Measurements by Applied Magnetics</i>	F	POSCO,Kyungbuk, KOREA
Janousek L., Zhenmao Chen, <b>Noritaka Yusa</b> and Kenzo Miya	<i>A novel eddy current testing probe suitable to the inspection of thick structures</i>	F	Tokyo, 110-0008 Japan

## Section G Special Imaging and Optical methods

(M. Honlet)

Authors	Title of paper	Sec.	Notes
<b>Honlet M.</b>	<i>Nondestructive Crack Detection and Evaluation in Silicone Cells and Wafers</i>	G	HONLET Optical Systems GmbH, D
<b>Swiderski W.</b>	<i>Infrared nondestructive testing in military applications</i>	G	Military Institute Zielonka, Poland
Helfen L., Kiel D., Pernot P, Mikulík P., <b>Baumbach T.</b>	<i>Three-Dimensional Imaging of Microsystem and Microelectronic Devices by Synchrotron-radiation Computed Laminography</i>	G	Karlsruhe, Grenoble, Brno D, F, CZ

## Section S Student's presentation

(P. Mazal)

Authors	Title of paper	Sec.	Notes
<b>Siddiolo A.M.</b> , Maeva A.R. and Maev R.Gr.	<i>Ultrasonic Air-Coupled Methods for Painting Diagnostics</i>	student	Univ.of Windsor Ontario, Canada
<b>Myagotin A.</b> , Helfen L., Banhart J., Baumbach T.	<i>In situ Radiography of Metal Foaming Processes: a Quantitative Analysis</i>	student or poster	Karlsruhe, Grenoble, Berlin
<b>Sedlák P.</b> , Hájek K. and Trojanova Z.	<i>Nonlinear spectroscopy of metal samples</i>	student	Brno University of Technology, CZ

Poster presentation (short oral presentation is supposed)

<b>Authors</b>	<b>Title of paper</b>	<b>Sec.</b>	<b>Notes</b>
<b>Avramenko V.G.</b> , Lebedev O.V., Kirzhanov D.V., Budadin O.N., <b>Avramenko V.G.</b> , Lebedev O.V., Kirzhanov D.V., Budadin O.N., Obbadi A., <b>Belattar S .</b>	<i>The solution of the inverse problem of nonstationary heat conductivity in multilayer objects</i> <i>Solution of the Inverse Problem of Nonstationary Heat Conductivity Using FFT</i> <i>Non-destructive Three-dimensional study of a Delamination of a Wall External surface by the Surface Temperatures Analysis</i>	poster poster poster	WEMO", Moscow, Russia "WEMO", Moscow, Russia Faculty of Sciences, El Jadida, Morocco
<b>Hefner Š.</b>	<i>Nonlinear Ultrasonic Spectroscopy of Rock and Ceramic Samples</i>	poster	VUT FEKT UFYZ Brno, CZ
<b>Majzner J.</b> , Mori Y, Sedlak P, Sikula J.	<i>Spectral analysis of EME signal</i>	poster	Brno University of Technology, CZ
<b>Matysík, M.</b>	<i>On the effect of additives and admixtures on the cement hydration heat development progress</i>	poster	Brno University of Technology, CZ
<b>Chlada M.</b> , Blahacek M., Prevorovsky Z.	<i>Neural network AE source location based on extracted signal features</i>	poster	IT ASCR, Prague, CZ
<b>Algernon D.</b> , Wiggenhauser H.	<i>Identification of short transient signals in impact echo data using the Hilbert Huang transform (HHT)</i>	poster	BAM, Berlin, D
<b>Lebedev O.V.</b> , Avramenko V.G. Kirzhanov D.V., Budadin O.N.	<i>Multi-phase heat-mass transfer and calculation of the current position of the front freezing and dew point in the buildings</i>	poster	WEMO", Moscow, Russia

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