Monday, 13 June 2016

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
09:30	Opening Ceremony			
12:00	Opening of Exhibition			
13:30 – 15:00	Mo.1.A Ultrasonic Phased Array 1	Mo.1.B Non-linear Acoustic 1	Mo.1.C Robotics Assisted NDE 1	Mo.1.D Reliability
15:30 – 16:50	Mo.2.A Ultrasonic – Total Focussing Method 1	Mo.2.B Non-linear Acoustic 2	Mo.2.C Cultural Heritage 1	Mo.2.D Reliability – Ultrasonic Testing 1
17:15 – 18:15	Mo.3.A			Mo.3.D
Poster Short Presentations:	Ultrasonics			Material Properties
18:30	Poster and Exhibition Evening incl. Interactive Presentations			

FIRST FLOOR

Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
Mo.1.E ICNDT WG3 – Condition Monitoring 1	Mo.1.F Sensor Concepts 1	Mo.1.G Semi-finished Products – Mechanical Properties	Mo.1.H Modelling and Data Processing – Fundamentals 1	Mo.1.I Guided Waves – Modelling
Mo.2.E Underground Infrastructure 1	Mo.2.F Image Processing	Mo.2.G Lifetime Management	Mo.2.H Modelling and Data Processing – Thermography	Mo.2.I Guided Waves – Defect Detection
Mo.3.E Thermography et al.		Mo.3.G Surface Methods	Mo.3.H Acoustic Microwave	Mo.3.I Radiographic Methods et al.

Monday, 13 June 2016

Tuesday, 14 June 2016

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
08:30 – 10:00	Tu.1.A Railway Rolling Stock	Tu.1.B Computed Tomography – Materials Characterisation	Tu.1.C Stress Analysis – Components	Tu.1.D Reliability – Energy
10:30 – 12:10	Tu.2.A Railway Rolling Stock – Ultrasonic Phased Array	Tu.2.B Digital Radiology and Radiography 1	Tu.2.C Stress Analysis – Magnetic Methods	Tu.2.D Reliability – Electromagnetic Inspection
13:30 – 15:10	Tu.3.A Ultrasonic Phased Array 2	Tu.3.B Surface Structures	Tu.3.C Stress Analysis – Ultrasonic Testing and References	Tu.3.D Reliability – Ultrasonic Testing 2
15:40 – 17:20	Tu.4.A Semi-finished Products – Phased Array	Tu.4.B Computed Tomography – Defects	Tu.4.C Medicine and Biology	Tu.4.D Reliability – Human Factors

Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
Tu.1.E Condition Monitoring 1	Tu.1.F Material Degradation 1	Tu.1.G Microwaves and TeraHertz 1	Tu.1.H Modelling and Data Processing – Ultrasonic Methods 1	Tu.1.I Aviation – Military
Tu.2.E Condition Monitoring 2	Tu.2.F Material Degradation 2	Tu.2.G Non-Contact Ultrasonics	Tu.2.H Modelling and Data Processing – Fundamentals 2	Tu.2.I Aviation 1
Tu.3.E ICNDT WG3 – Condition Monitoring 2	Tu.3.F Robotics Assisted NDE 2	Tu.3.G Nano-Technologies and High-Resolution NDT 1	Tu.3.H Modelling and Data Processing – Algorithms 1	Tu.3.I Aviation 2
Tu.4.E ICNDT WG3 – Condition Monitoring 3	Tu.4.F Robotics Assisted NDE 3	Tu.4.G Nano-Technologies and High-Resolution NDT 2	Tu.4.H Modelling and Data Processing – Algorithms 2	Tu.4.I Aviation – Composites

Tuesday, 14 June 2016

Wednesday, 15 June 2016

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
08:30 – 10:10	We.1.A Energy Generation (Nuclear) – Ultrasonic Testing	We.1.B Imaging – Reconstruction 1	We.1.C Eddy Current Testing	We.1.D Reliability – POD
10:40 – 12:20	We.2.A Semi-finished Products – Ultrasonic Testing	We.2.B Imaging – Reconstruction 2	We.2.C Eddy Current Array	We.2.D Reliability – Statistics
13:30 – 15:10	We.3.A Aviation – Ultrasonic Testing	We.3.B Synchrotron Applications	We.3.C Qualification and Certification – Education	We.3.D Reliability – Performance Demonstration
15:40 – 17:20	We.4.A Civil Engineering – Ultrasonic Testing	We.4.B Computed Tomography – Specific Applications	We.4.C Qualification and Certification 1	We.4.D Energy Generation (Regenerative)
20:00	Gala Dinner at Allianz Arena			

Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
We.1.E Composite Materials – Characterisation	We.1.F Magnetic and Penetrant Testing	We.1.G Railway Infrastructure	We.1.H Modelling and Data Processing – Eddy Current	We.1.I CFRP Aircraft Structures
We.2.E Energy Nuclear 1	We.2.F Leak Testing	We.2.G Railway Rolling Stock – Axles Inspection	We.2.H Modelling and Data Processing – Electro-magnetic Inspecton	We.2.I Composite Materials – Thermography
We.3.E Energy Nuclear 2	We.3.F Materials Characterisation – Ceramics	We.3.G Modelling and Data Processing – Digital Radiography	We.3.H Modelling and Data Processing – Simulations 1	We.3.I Materials Characterisation – Composites and Polymers
We.4.E Nuclear Storage Casks Inspection	We.4.F Semi-finished Products – Non-Contact Inspection	We.4.G Composite Materials – Various Methods	We.4.H Modelling and Data Processing – Simulations and Applications	We.4.I Materials Characterisation – Composites

Wednesday, 15 June 2016

GROUND FLOOR

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Thursday, 16 June 2016

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
08:30 – 10:00	Th.1.A Energy Generation (Nuclear) – Primary Circuit	Th.1.B Process Monitoring 1	Th.1.C Qualification and Certification 2	Th.1.D Corrosion Detection 1	Th.1.E Structural Health Monitoring – Guided Waves	Th.1.F Metal Magnetic Memory Technique 1	Th.1.G Civil Engineering – Concrete Structures	Th.1.H Semi-finished Products – Eddy Current	Th.1.I Materials Characterisation – Metals 1
10:30 – 12:10	Th.2.A Energy Generation	Th.2.B Process Monitoring 2	Th.2.C Qualification and Certification 3	Th.2.D Corrosion Detection 2	Th.2.E Structural Health Monitoring 1	Th.2.F Metal Magnetic Memory Technique 2	Th.2.G Civil Engineering – Materials Assessment	Th.2.H Modelling and Data Processing – Simulations and Algorithms	Th.2.I Materials Characterisation – Metals 2
13:30 – 15:10	Th.3.A Ultrasonic – Total Focussing Method 2	Th.3.B NDT of Adhesive Bonding 1	Th.3.C Resonance Technology	Th.3.D Corrosion Detection 3	Th.3.E Structural Health Monitoring 2	Th.3.F Laser Ultrasonics	Th.3.G Surface Methods – Electromagnetic Inspection	Th.3.H Modelling and Data Processing – Ultrasonic Methods 2	Th.3.I Materials Characterisation – Metals – Eddy Current
15:40 – 17:20	Th.4.A Ultrasonic Testing	Th.4.B NDT of Adhesive Bonding 2	Th.4.C Materials Characterisation – Composites – Modelling	Th.4.D Infrared and Optical	Th.4.E Structural Health Monitoring – Acoustic	Th.4.F Laser Ultrasonics and New Methods	Th.4.G Civil Engineering – Acoustic Emission	Tu.4.H Modelling and Data Processing	Th.4.I Thermography
20:00	Bavarian Evening at restaurant „Löwenbräukeller“								

Friday, 17 June 2016

08:30 – 10:10	Fr.1.A Welding – Ultrasonic Methods	Fr.1.B Automotive Spot Welds	Fr.1.C Standardisation	Fr.1.D Project MAIzfp – Composites	Fr.1.E Structural Health Monitoring – Ultrasonic Testing	Fr.1.F Sensor Concepts 2	Fr.1.G Pipeline In-Service Inspection	Fr.1.H Modelling and Data Processing – Simulations 2	Fr.1.I Materials Characterisation – Polymers
10:40 – 12:00	Fr.2.A Welding – Various Methods	Fr.2.B Marine	Fr.2.C Cultural Heritage 2	Fr.2.D Process Monitoring 3	Fr.2.E Underground Infrastructure 2	Fr.2.F Public Security and Humanitarian Safety	Fr.2.G Microwaves and TeraHertz 2	Fr.2.H Digital Radiology and Radiography 2	Fr.2.I Guided Waves – Structural Engineering
12:30	Closing Ceremony								

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
09:30	**Opening Ceremony**			
12:00	**Opening of Exhibition**			
	Mo.1.A *ULTRASONIC PHASED ARRAY 1* *O.A. Barbian, P. Benoist*	**Mo.1.B** *NON-LINEAR ACOUSTIC 1* *K. Balasubramaniam, S. Dos Santos*	**Mo.1.C** *ROBOTICS ASSISTED NDE 1* *B. van den Bos, F. Wolfsgruber*	**Mo.1.D** *RELIABILITY* *C. Müller, G. Selby*
13:30	**Mo.1.A.1** **New ISO Calibration Block for Phased Array Ultrasonic Testing** *D. Chauveau, Institut de Soudure, Villepinte, France*	**Mo.1.B.1** **Nonlinear NDT: A Route to Conventional Ultrasonic Testing** *I. Solodov, University of Stuttgart, Germany*	**Mo.1.C.1** **X-ray Computed Tomography Reconstruction on Non-Standard Trajectories for Robotized Inspection** *C. Vienne, CEA, Gif-sur-Yvette, France*	**Mo.1.D.1** **NDT Reliability Assessment for Complex NDT Processes** *D. Forsyth, TRI, Austin, USA*
14:00	**Mo.1.A.2** **A Simplified Approach for DAC with Phased-Array** *Y. Oberdörfer, GE Sensing & Inspection Technologies, Hürth, Germany*	**Mo.1.B.2** **Detecting the fatigue damage of ropes using the nonlinear acoustic second harmonic parameter by the magnetostrictive guided wave method** *J. Xu, Huazhong University of Science and Technology, Wuhan, China*	**Mo.1.C.2** **Comparison of Reconstruction Methods for Computed Tomography with Industrial Robots using Automatic Object Position Recognition** *F. Herold, YXLON International, Hamburg, Germany*	**Mo.1.D.2** **The Use of Simulation in POD Curves Estimation: An Overview of the IIW Best Practices Proposal** *P. Calmon, CEA, Gif-sur-Yvette, France*
14:20	**Mo.1.A.3** **High Resolution Phased Array Imaging using the Total Focusing Method** *H. Rast, KARL DEUTSCH Prüf- und Messgerätebau, Wuppertal, Germany*	**Mo.1.B.3** **Anisotropy of NEWS damage parameters in CFRP composite** *Z. Prevorovsky, Inst. of Thermomechanics, Prague, Czech Republic*	**Mo.1.C.3** **3D X-Ray High Energy Testing of Large Objects with Specialized Manipulation Trajectories** *B. Redmer, BAM, Berlin, Germany*	**Mo.1.D.3** **An Overview of Standardized Capability for US Air Force Inspections** *E.A. Lindgren, US Air Force Research Laboratory, Wright-Patterson, USA*
14:40	**Mo.1.A.4** **Phased Array Technology – Scan Plan Methodologies for Weld Inspection** *T. Couturier, Olympus, Rungis, France*	**Mo.1.B.4** **Numerical and Experimental Analysis of harmonic generation method for detection of closed cracks** *A. Meziane, Université Bordeaux, Talence, France*	**Mo.1.C.4** **Novel handling concept for production-integrated computed tomography** *M. Eberhorn, Fraunhofer EZRT, Fürth, Germany*	**Mo.1.D.4** **Analyzing the Reliability of Non-destructive Tests using the Modular Modell – a practical approach** *R. Holstein, DGZfP Ausbildung und Training, Berlin, Germany*
15:00	Break			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Mo.1.E *ICNDT WG3 – CONDITION MONITORING 1* *T. Clausing, L. Gelman*	**Mo.1.F** *SENSOR CONCEPTS 1* *B. Köhler, P. Wang*	**Mo.1.G** *SEMI-FINISHED PRODUCTS – MECHANICAL PROPERTIES* *P. Meilland, M. Stolzenberg*	**Mo.1.H** *MODELLING AND DATA PROCESSING – FUNDAMENTALS 1* *T. Chady, A. Volker*	**Mo.1.I** *GUIDED WAVES – MODELLING* *Z. Fan, P. Mudge*
13:30	**Mo.1.E.1** **State of the Art on Magnetic Properties – Stress Correlation in Steels** *E. Hristoforou, National Technical University of Athens, Greece*	**Mo.1.F.1** **Quantum Well Hall Effect Magnetovision System for Non-Destructive Testing** *C.-W. Liang, University of Manchester, UK*	**Mo.1.G.1** **In-line Characterisation of Microstructure and Mechanical Properties in the Manufacturing of Steel Strip for the Purpose of Product Uniformity Control** *F. van den Berg, Tata Steel, Ymuiden, Netherlands*	**Mo.1.H.1** **A Theory of Nonlinear Eddy Current NDE Model and its Experimental Tests** *N. Nakagawa, Iowa State University, Ames, USA*	**Mo.1.I.1** 13:30 **Guided Wave Testing for Structural Member by Multipoint Sensing with Wireless Accelerometers** *K. Nakahata, Ehime University, Matsuyama, Japan*
14:00	**Mo.1.E.2** **Analysis and Stress Determination in Welded Samples** *P. Vourna, National Technical University of Athens, Greece*	**Mo.1.F.2** **Coplanar Capacitive Imaging Probe with Electrode Array for Hidden Defect in Non-conducting Materials** *X. Yin, China University of Petroleum, Qingdao, China*	**Mo.1.G.2** **Measurement of Ultrasonic Velocity and Attenuation in L80 Steel and their Correlation with Tensile Properties** *J.B. Wiskel, University of Alberta, Edmonton, Canada*	**Mo.1.H.2** **Fractal Technique for the Extraction of Latent Safety Information from Multi Sensors Monitoring Data** *V.V. Vengrinovich, National Academy of Science of Belarus, Minsk, Belarus*	**Mo.1.I.2** 14:00 **Pulse-Echo Guided Wave Inspection Using Multimode Dispersion Compensation** *R. Roberts, Iowa State University, Ames, USA*
14:20	**Mo.1.E.3** **Universality of the Calibration Curves – the Universality Law** *A. Ktena, Technological Education Institution of Sterea Ellada, Evia, Greece*	**Mo.1.F.3** **Introduction of The Field Kelvin Probe – Non-Contact and Through-Wall Detection of Corrosion** *E.F. Turcu, Christian Michelsen Research, Bergen, Norway*	**Mo.1.G.3** **Speed Effect on a Multi-frequency Electromagnetic NDT System Used for the Characterisation of the Microstructure of Strip Steel** *W. Zhu, University of Manchester, UK*	**Mo.1.H.3** **Higher-order Scattering for Diffuse Ultrasonic Backscatter Measurements on Nickel Alloys** *J. Turner, University of Nebraska-Lincoln, USA*	**Mo.1.I.3** 14:20 **Application of Ultrasonic Guided Waves for Inspection of Multi-Wire Rope Structures** *R. Raisutis, Kaunas University of Technology, Kaunas, Lithuania*
14:40	**Mo.1.E.4** **Monitoring Magnetic Property Tensor Across the Weld at the Same Points where Stress Tensor was Monitored** *S. Aggelopoulos, National Technical University of Athens, Greece*	**Mo.1.F.4** **Novel air-coupled ultrasonic transducer combining the thermoacoustic with the piezoelectric effect** *M. Gaal, BAM, Berlin, Germany*	**Mo.1.G.4** **In-line Quantitative Measurement of Transformed Phase Fraction by EM Sensors during Controlled Cooling on the Run-out Table of a Hot Strip Mill** *F. van den Berg, Tata Steel, Ymuiden, Netherlands*	**Mo.1.H.4** **Simulation model of Eddy Current inspection with DC magnetic field associated** *J. Rebello, Federal University of Rio de Janeiro, Brazil*	**Mo.1.I.4** 14:40 **Sizing of Through-Thickness Circular Holes in Plate Structures by Ultrasonic Lamb Wave Testing** *F. Honarvar, K. N. Toosi University of Technology, Teheran, Iran*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Mo.2.A *ULTRASONIC – TOTAL FOCUSSING METHOD 1* *F. Honarvar, W. Roye*	**Mo.2.B** *NON-LINEAR ACOUSTIC 2* *Z. Prevorovsky, I. Solodov*	**Mo.2.C** *CULTURAL HERITAGE 1* *K. Fukunaga, A. Hasenstab*	**Mo.2.D** *RELIABILITY – ULTRASONIC TESTING 1* *J.H. Kurz, R. Smith*
15:30	**Mo.2.A.1** **Study of Ultrasonic Phased-Array Methods for the Inspection of Composite Structures with Different Geometric and Mechanical Properties** *A. Aschy, CETIM, Nantes, France*	**Mo.2.B.1** **The material elastic constant evaluation by ultrasonic acoustics nonlinearity and wave velocity** *Y. Lee, Pusan National University, Busan, South Korea*	**Mo.2.C.1** **A New Method to Test Masonry Shear Characteristics Thought Flat Jack (FJ-SCT Method)** *D. Foppoli, Foppoli Moretta e Associati, Tirano, Italy*	**Mo.2.D.1** **Two-Parameter Estimation of Reliability of Ultrasonic Testing** *A. Dergachev, OJSC „STC „Industrial Safety“, Moscow, Russia*
15:50	**Mo.2.A.2** **What is the benefit of Total Focusing Method and Full Matrix Capture for Ultrasonic Imaging using Phased Array Technique?** *R. Boehm, BAM, Berlin, Germany*	**Mo.2.B.2** **Characterization of Microstructural Evolution in Heat Treated rolled Copper and Brass by Nonlinear ultrasonic Waves** *W. Li, Xiamen University, China*	**Mo.2.C.2** **Characterisation of Historic Facades using Active Thermography with Solar Heating and Optical Methods** *C. Maierhofer, BAM, Berlin, Germany*	**Mo.2.D.2** **Simulation of the Probability of Detection of a Longitudinal Flaw within a Pipe Using an Automated Ultrasonic Inspection** *N. Nourrit, Vallourec, Aulnoye-Aymeries, France*
16:10	**Mo.2.A.3** **Progress in the Development of a FMC/ TFM Based Ultrasonic System** *R. ten Grotenhuis, Ontario Power Generation, Toronto, Canada*	**Mo.2.B.3** **Optimized analysis for nonlinear ultrasonic imaging in complex media: acoustic imaging for cultural heritage** *S. Dos Santos, INSA, Blois, France*	**Mo.2.C.3** **Moisture Monitoring during an Artifical Weathering Test of a Cultural Heritage Compatible Insulation plaster** *J. Frick, Materials Testing Inst. University of Stuttgart, Germany*	**Mo.2.D.3** **Automated Data Analysis (ADA) of Ultrasonic NDE Data for Composites** *J. Welter, US Air Force Research Laboratory, Wright-Patterson, USA*
16:30	**Mo.2.A.4** **Research on Correction and Optimization of Post-processing Imaging of Structure with Non-planar Interface Using Full Matrix Data of Ultrasonic Array** *Z. Zhou, Beihang University, Beijin, China*	**Mo.2.B.4** **Acoustic resonance testing for non-destructive detection of forged or casted serial parts with intolerable geometric variations – experimental model adaption** *M. Heinrich, htw saar Fraunhofer IZFP, Saarbrücken, Germany*	**Mo.2.C.4** **Development of a Standard for Computed Tomography of Historical Musical Instruments – the MUSICES project** *T. Fuchs, Fraunhofer IIS, Fürth, Germany*	**Mo.2.D.4** **Corrosion Inspection with Dual Element Phased Arrays** *Y. Oberdörfer, GE Sensing & Inspection Technologies, Hürth, Germany*
16:50	Break			
	Mo.3.A *POSTER SHORT PRESENTATIONS – ULTRASONICS* *A. Erhard*			**Mo.3.D** *POSTER SHORT PRESENTATIONS - MATERIAL PROPERTIES* *F. Ahrens*
17:15	**P106** **Interpretation of Ultrasonic Based Stave Thickness Measurement Technique for Blast Furnaces** *S. Balamurugan, Tata Steel, Jamshedpur, India*			**P22** **Combination of Ultrasonic and Eddy Current Testing with Imaging for Characterization of Rolling Contact Fatigue** *R. Ahlbrink, Eurailscout Inspection & Analysis, Berlin, Germany*

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Mo.2.E *UNDERGROUND INFRASTRUCTURE 1* *R. Collins, K. Horoshenkov*	**Mo.2.F** *IMAGE PROCESSING* *M. Rauhut, T. Williams*	**Mo.2.G** *LIFETIME MANAGEMENT* *L.J. Bond, T. Takagi*	**Mo.2.H** *MODELLING AND DATA PROCESSING – THERMOGRAPHY* *Y. Cho, S.M. Shepard*	**Mo.2.I** *GUIDED WAVES – DEFECT DETECTION* *R. Roberts, T.K. Vogt*
15:30	**Mo.2.E.1** **Detection of Hydrothermal Aging in Cured-In-Place Pipes (CIPP) Based on Microwave System** *M. Manavipour, Fraunhofer IZFP, Saarbrücken, Germany*	**Mo.2.F.1** **Digital Image Processing for the Automation of NDT by Means of Endoscopy** *K. Spinnler, Fraunhofer IIS, EZRT, Fürth, Germany*	**Mo.2.G.1** **Examination of Service Life of Generator Rotor Retaining Rings Made of ASTM A289 Class C Steel Using LDC1000 Sensor** *D. Baron, EthosEnergy, Lubliniec, Poland*	**Mo.2.H.1** **Eddy Current and Thermal Patterns for Quantitative NDT&E** *Y. Wang, Univ. of Electronic Science and Technology of China, Chengdu, China*	**Mo.2.I.1** 15:30 **A New Generation of Frequency Steerable Transducers for Lamb Waves Inspections** *L. De Marchi, University of Bologna, Italy*
15:50	**Mo.2.E.2** **A Modelling Approach for Guided Wave Propagation in Coated and Buried Pipes** *W. Duan, Brunel University London, Middlesex, UK*	**Mo.2.F.2** **Automatic Industrial CT Image Processing and Analysis of Batch Workpiece NDT Based on the VGStudio SDK** *T. Wang, Granpect, Beijing, China*	**Mo.2.G.2** **Efficient inspection from measurement collection through to report** *W. Woodhead, Silverwing, Swansea, UK*	**Mo.2.H.2** **Sonothermography in composite materials: Finite Element modeling and experimental validation** *A. Meziane, Université Bordeaux, Talence, France*	**Mo.2.I.2** 15:50 **Non-Destructive Method Based on Rayleigh-Like Waves to Detect Corrosion Thinning on Non-Accessible Aareas** *L. Taupin, CEA-LIST, Gif-sur-Yvette, France*
16:10	**Mo.2.E.3** **Guided Wave Attenuation in Coated Pipes Buried in Sand** *M. Lowe, Imperial College London, UK*	**Mo.2.F.3** **Improvements to image processing algorithms used for delamination damage extraction and modeling** *M. Stefaniuk, Air Force Institute of Technology, Warsaw, Poland*	**Mo.2.G.3** **Ultrasonic Inspection of Fatigue Stressed Areas of Hydroelectric Power Plant Components** *S. Dugan, MPA Universität Stuttgart, Germany*	**Mo.2.H.3** **Machine vision platform for non-destructive testing methods of fibre reinforced plastics** *A. Frommknecht, Fraunhofer IPA, Stuttgart, Germany*	**Mo.2.I.3** 16:10 **An Analytical Insight into Contact Acoustic Nonlinearity of Guided Ultrasonic Waves under Modulation of a Breathing Crack** *Z. Su, Hong Kong Polytech. Univ., Hong Kong, China*
16:30	**Mo.2.E.4** **Condition Detection in Underground Pipes with Airborne Acoustic Waves** *K. Horoshenkov, University of Sheffield, UK*	**Mo.2.F.4** **Phased Array UT Open Platform Electronics with Full-Matrix Capture for Custom and Automated Solutions** *G. Dao, AOS NDT, Cincinnati, USA*	**Mo.2.G.4** **Ultrasonic Waveguide Techniques for Distributed Temperature Sensing** *K. Balasubramaniam, Indian Institute of Technology Madras, Chennai, India*	**Mo.2.H.4** **Non-Destructive Evaluation of Defective CFRP Laminates** *T. Ullmann, German Aerospace Center, Stuttgart, Germany*	**Mo.2.I.4** 16:30 **Methods for Quantitative Wall Thickness Mapping using Dispersive Guided Waves** *A. Volker, TNO, Delft, Netherlands*
	Mo.3.E *POSTER SHORT PRESENTATIONS – THERMOGRAPHY ET AL.* *M. Spies*		**Mo.3.G** *POSTER SHORT PRESENTATIONS - SURFACE METHODS* *G. Dobmann*	**Mo.3.H** *POSTER SHORT PRESENTATIONS - ACOUSTIC MICROWAVE* *M. Kreutzbruck*	**Mo.3.I** *POSTER SHORT PRESENTATIONS – RADIOGRAPHIC METHODS ET AL.* *M. Purschke*
17:15	**P8** **UV Testing Personnel Training and Certification** *G. Batov, SEC „Kachestvo“, Moscow, Russia*		**P75** **Safety and Productivity Innovations in Liquid Penetrants and Magnetic Particles Testing** *M. Cevenini, NDT Italiana, Concorezzo, Italy*	**P2** **The Use of Acoustic Emission Method for Diagnosis of Damage of Pneumatic Valves** *P. Mazal, Brno University of Technology, Czech Republic*	**P49** 17:15 **Supercomputing the Cascade Processes of Radiation Transport** *C. Bellon, BAM, Berlin, Germany*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
17:20	P112			P23
	Innovative Technologies for Ultrasonic Phased Array Instrumentation *J. Büchler, GE Sensing & Inspection Technologies, Hürth, Germany*			**Tightening control by ultrasound** *F. Belahcene, ULTRA RS, Breviandes, France*
17:25	P120			P24
	High Frequency Ultrasonic Systems with Frequency Ranges of 35 to 200 MHz *W. Hillger, Ingenieurbüro Dr. Hillger, Braunschweig, Germany*			**Characterization of the states of aging of HP austenitic stainless steels through spectral analysis of ultrasonic signals** *N. Chaves de Siqueira, Federal University of Rio de Janeiro, Brazil*
17:30	P121			P28
	Study on Sectorial Scan Angle Range for Phased Array Ultrasonic Testing in standard setting *X. Jiang, Ho Hai University, Chang Zhou, China*			**Capability of Stress Wave Acoustic Tomography Technique for Predicting Internal Defects on Living Trees** *T. Dündar, Istanbul University, Bahçeköy, Turkey*
17:35	P123			P34
	EMAT in Car and Space Industry: Modern Achievements and Specifics of Application *A. Kirikov, Nordinkraft, Heimsheim, Germany*			**Quality control of induction hardened layer and of the grinding process in aerospace ball screws by magnetic Barkhausen noise analysis** *A. Martinez-de-Guerenu, CEIT, San Sebastián, Spain*
17:40	P124			P35
	Inspection of Hidden and Curved Regions in Composite Structures using Non-contact Guided Ultrasonic Waves *D. Koodalil, Indian Institute of Technology Madras, Chennai, India*			**Qness – Hardness Testing** *V. Meyer, Hahn-Kolb, Ludwigsburg, Germany*
17:45	P125			P36
	Customized Ultrasonic Inspection Solutions for various Industrial Products *M. Krüger, VOGT Ultrasonics, Burgwedel, Germany*			**Nondestructive Testing of Material Properties and Defects in Hot Stamped Parts** *T. Müller, Fraunhofer IZFP, Saarbrücken, Germany*

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	P9		P78	P3	P50 17:20
	A robot inspection system allows the detection of defects in adhesive bonds between CFRP components by using active thermography, leading to reduces cycle times *M. Busch, ZeMA–Zentrum für Mechatronik und Automatisierungstechnik, Saarbrücken, Germany*		**Well Integrity and Corrosion inspection of surface casings and conductors of offshore wells with the D-PEC inspection technology** *F. Gabriëls, TÜV Rheinland Sonovation, Oosterhout, Netherlands*	**Heat Treatment and Tension Curves in Contemporary Steel Materials Monitored by Acoustic Emission** *G. Por, College of Dunaujvaros, Hungary*	**Contemporary Witnesses for the Forensic Analysis of the 14th and 15th Century Fingerprints on Town Seals Examined by Latest Micro-CT Technology. Sphragistics in Combination with NDT** *K.U. Berg, BMB, Heilbronn, Germany*
	P13		P80	P4	P51 17:25
	Database Structure for Thermographic Inspection of CFRP Metal Hybrid Components *M. Jelinek, Institute for Machine Tools and Industrial Management – Application Center Augsburg, Germany*		**Motion-induced Eddy Current Testing of Composite Materials** *S. Gorges, Technische Universität Ilmenau, Germany*	**Acoustic Emission Measurement During Low-Cycle Fatigue Test of Reactor Pressure Vessel Steels** *G. Por, College of Dunaujvaros, Hungary*	**Advances in High Energy X-ray Digital Detector Arrays** *C. Bueno, GE Global Research Center, Niskayuna, USA*
	P14		P82	P6	P52 17:30
	Thermal characteristic and failure analysis of fully packaged devices using Lock-in Thermography *S. Kim, KBSI, Daejeon, South Korea*		**Various Approaches to Obtain an Eddy Current Signal in Case of Overheating** *K. Härtel, imq, Crimmitschau, Germany*	**The Detection of Different Stages of the Delaminating in the Pressure Vessels Shells by the Ultrasonic and Acoustic Emission Technique** *K. Zotov, PANATEST, Moscow, Russia*	**The design and performance test of the first high energy industrial FPD of China** *H. Chen, China Academy of Engineering Physics, Mianyang, China*
	P15		P83	P76	P53 17:35
	Learning More on Thermoplastic Composites with Infrared Thermography *C. Meola, University of Naples Federico II, Napoli, Italy*		**About the Performance of Non-Multiplication Magnetization Method in a Magnetic Particle Testing** *M. Hori, Nihon Denji Sokki Co, Tachikawa-city, Tokyo, Japan*	**Inspection of Clad Materials Using Massive Multi-Frequency Eddy Current Method** *T. Chady, West Pomeranian University, Szczecin, Poland*	**Transfer of Technology as a Panacea to Indigenous Technological Development** *H. Chimezie, National Centre for NDT, Effurun, Nigeria*
	P16		P86	P101	P54 17:40
	Active thermography for crack testing of railway wheels and rails *U. Netzelmann, Fraunhofer IZFP, Saarbrücken, Germany*		**Demagnetization of Thick Walled Pipes** *M. Kaack, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**Handheld Terahertz Inspection and Thickness Measurements** *S. Becker, Becker Photonik, Porta Westfalica, Germany*	**Inner Stress and Strain Analysis of Granular Material by Compression Molding Using Micro-tomography** *B. Dai, China Academy of Engineering Physics, Mianyang, China*
	P17		P87	P102	P57 17:45
	Application of Object Recognition in Locomotive Components Monitoring *J. Peng, Southwest Jiaotong University, Chengdu, China*		**Water tightness from a leak detection point of view** *R. Konwitschny, Pfeiffer Vacuum, Aßlar, Germany*	**Multi-source inspection of fiber-reinforced materials and plastics** *T. Chady, West Pomeranian University, Szczecin, Poland*	**Nondestructive extraction of fiber orientation in composites from CT-scan: a comparative study** *O. Guiraud, NOVITOM, Grenoble, France*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
17:50	P136 **A New Balanced TWM Laser Ultrasound Detector, the Principle and its Applications in NDT** *B. Reitinger, Recendt, Linz, Austria*			P37 **Monitoring with AE the Material Behaviour under Stress with Increasing Size of Planar Defects From Stability to Instability** *G. Nardoni, I&T Nardoni Institute, Brescia, Italy*
17:55	P137 **Development and Validation of an Iterative Time Reversal Technique for the Inspection of Composite Structures** *D. Richard, Zetec, Quebec, Canada*			P38 **Time Efficient Nondestructive Characterization of Customized Magneto-optical Thin Layers for Industrial Use** *M. Rabung, Fraunhofer IZFP, Saarbrücken, Germany*
18:00	P146 **PROline – ready for the next Industrial Revolution (Industry 4.0) and SCADA** *G. Vogt, VOGT Ultrasonics, Burgwedel, Germany*			P45 **Relation Among the Ultrasonic Result and Defect form and Material Property in Laser Rapid Forming Titanium Alloy** *Y. Shi, AVIC Beijing institute of aeronautical materials, Beijing, China*
18:05	P147 **Improved Inspection Quality and Efficiency Due to Advancements in Conventional Ultrasonic Instrument Development** *G. Von Zuben, Olympus Scientific Solutions Americas, Waltham, USA*			P47 **Monitoring of Low Cycle Fatigue Damage with Eddy Current** *W. Thale, ROSEN Technology, Lingen, Germany*
18:10	P151 **An Innovative Scanning Solution for Corrosion Mapping** *F. Zottig, Zetec, Quebec, Canada*			P48 **Distortion Analysis of Magnetic Excitation (DAME) – A Novel NDE Method for Evaluation of Properties of Ferromagnetic Materials** *M. Vaidhianathasamy, Newcastle University, UK*
18:15				P128 **Ultrasonic inspection of small pores within electron beam welded titanium alloys and their influence on the fatigue properties** *J. Liang, AVIC Beijing institute of aeronautical materials, Beijing, China*

18:30 **Poster and Exhibition Evening incl. Interactive Presentations**

FIRST FLOOR

Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
P19 **Automated Non-destructive Testing of Hybrid Structures** *M. Schäfer, TU Braunschweig, Germany*		P93 **A Pedestrian and Vehicle-Mounted System for Detecting RCF in Rail using Eddy Currents** *S. Saunders, Sperry Rail, Derby, UK*	P104 **Terahertz Technology Approaches the Markets: Survey about the Current Developments** *S. Kremling, SKZ – Das Kunststoff-Zentrum, Würzburg, Germany*	P58 17:50 **Static and Dynamic In-situ-computed-tomography for Dimensional Metrology Applications** *P. Hornberger, Fraunhofer IIS, Deggendorf, Germany*
P20 **Measuring Strand Orientation in Carbon Fiber Reinforced Plastics (CFRP) with Polarization** *M. Schöberl, Fraunhofer IIS, Erlangen, Germany*		P100 **Nondestructive Testing Systems with Magnetic Flux Leakage (MFL)** *S. Youssef, Fraunhofer IZFP, Saarbrücken, Germany*	P105 **Monitoring of Drying of Cement Screed with the Help of Ultra-wideband Microwaves and Air-coupled Antennas** *M. Manavipour, Fraunhofer IZFP, Saarbrücken, Germany*	P59 17:55 **Fast X-ray Digital Radiography Equipment for In-line Production Control** *M. Iovea, Accent Pro 2000, Bucharest, Romania*
P21 **Time is Money and Image is Everything – The Changing Face of the RVI Market** *T. Williams, Karl Storz Endoscopy, Chesterfield-Derbyshire, UK*		P141 **Laser ultrasound investigations on composites with optical generation from visible to infrared** *R. Seyrkammer, Recendt, Linz, Austria*	P156 **Ultra Sniffer – New Leak Detection Method** *R. Brockmann, Greifswald, Germany*	P63 18:00 **Statistical methods of an assessment of coherence of experts opinions in interpretation of radiogram** *N. Krysko, "Welding and Testing", MSTU u.a. Baumann, Moscow, Russia*
		P163 **Balancing Productivity and Product Quality in Welding, Revealing Interacting Organisational Cornerstones** *P. Hammersberg, Chalmers Univ. of Technology, Göteborg, Sweden*	P159 **A Reliable and Tracer Gas Independent Leak Detector for Food Packages** *S. Decker, INFICON, Köln, Germany*	P165 18:05 **NDT Practical Exami-nations/Assessments/ Evaluations** *H. Jansen, SAIW, Johannesburg, South Africa*
		P170 **CURe MODERN – French-German Infrastructure Inspection, Urban and Regional Planning** *J.H. Kurz, DB Systemtechnik, Brandenburg-Kirchmöser, Germany*	P171 **Leak Test of Test Parts with Pressure Compensation Elements using the Test Medium Compressed Air** *J. Lapsien, CETA Testsysteme, Hilden, Germany*	

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Tu.1.A *RAILWAY ROLLING STOCK* *X. Gao, T. Heckel*	**Tu.1.B** *COMPUTED TOMOGRAPHY – MATERIALS CHARACTERISATION* *G. Bruno, T. Lüthi*	**Tu.1.C** *STRESS ANALYSIS – COMPONENTS* *M. Shiwa, X. Wu*	**Tu.1.D** *RELIABILITY – ENERGY* *N. Dominguez, D. Forsyth*
08:30	**Tu.1.A.1** **On Non-Maximizable Ultrasonic Responses and POD Curves** *M. Carboni, Technical University of Milan, Italy*	**Tu.1.B.1** **Volumetric Digital Image Correlation for Materials Characterization** *E. Quintana, Sandia National Laboratories, Albuquerque, USA*	**Tu.1.C.1** **Accurate Ultrasonic Stress Measurement in Already Tightened Bolts by Means of Optimized Emat** *H. Walaszek, CETIM, Senlis, France*	**Tu.1.D.1** **Observations on implementation of the BAM holistic reliability model** *G. Selby, EPRI, Charlotte, USA*
09:00	**Tu.1.A.2** **Magneto-Inductive Diagnosis of Steel Parts with Unknown Fatigue Load History** *G. Dobmann, Saarbrücken, Germany*	**Tu.1.B.2** **Determination of Particle Size Distribution of Polymer- Polymer Composite Material Using X-ray CT** *C. Hannesschläger, FH OÖ Forschung & Entwicklung, Wels, Austria*	**Tu.1.C.2** **Stress Distributions Generated by Straightening of Tubes** *M. Kaack, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**Tu.1.D.2** **Phased Array Ultrasonic Testing of Welds in Small Bore Tubing – Review of NDT Round-robin carried out by GENSIP Consortium of UK Power Generating Companies** *C. Brett, E.ON Technologies, Nottingham, UK*
09:20	**Tu.1.A.3** **Handheld Solution for Measurement of Residual Stresses on Railway Wheels using EMATs** *J.A. Jimenez Garrido, Innerspec Technologies Europe, Alcala de Henares, Spain*	**Tu.1.B.3** **X-Ray computed tomography of structural parts made by injection moulding and a local reinforcement with thermoplastic UD-sheets** *R. Schlimper, Fraunhofer IWM, Halle, Germany*	**Tu.1.C.3** **Determination of Residual Stress State and Mechanical Properties of Spiral Sub-Merged Arc Welded Steel Pipes** *C.H. Gür, METU, Ankara, Turkey*	**Tu.1.D.3** **Validation of an Ultrasonic-Phased-Array-Method for Testing of Circumferential Welds at Thin-walled Pipes** *S. Hillmann, Fraunhofer IKTS, Dresden, Germany*
09:40	**Tu.1.A.4** **Inspection Forged Railway Wheels with Non-Destructive Testing Magnetic Barkhausen Noise to Evaluate Residual Stresses of Manufacturing** *É. Santos, University of São Paulo, Brazil*	**Tu.1.B.4** **In situ micro tomography and radioscopy for biology and materials characterization** *S. Zabler, Fraunhofer EZRT, Würzburg, Germany*	**Tu.1.C.4** **Ultrasonic Measurement of Residual Stresses in Welded Elements and Structures** *Y. Kudryavtsev, Structural Integrity Technologies, Markham, Canada*	**Tu.1.D.4** **Smart Data Analysis of the Results of Automated and Manual Ultrasonic Inspections on the Example of Rotor Forgings** *J. Vrana, Siemens, München, Germany*
10:00	Break			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Tu.1.E *CONDITION – MONITORING 1* *P.S. Heyns, G. Lackner*	**Tu.1.F** *MATERIAL DEGRADATION 1* *G. Dobmann, L. Mazeika*	**Tu.1.G** *MICROWAVES AND TERAHERTZ 1* *C. Evers, S. Kremling*	**Tu.1.H** *MODELLING AND DATA PROCESSING – ULTRASONIC METHODS 1* *P. Calmon, K. Mayer*	**Tu.1.I** *AVIATION – MILITARY* *T. Krause, C.M. Scala*
08:30	**Tu.1.E.1** **Sonic and Ultrasonic Measurement Applications for Cased Oil Wells** *S. Zeroug, Schlumberger, Cambridge, USA*	**Tu.1.F.1** **Acoustic Monitoring of Proton Impacts at CERNs Large Hadron Collider** *B. Fischer, XARION Laser Acoustics, Wien, Austria*	**Tu.1.G.1** **Thickness Measurement of Mulitlayer Coating using Terahertz Techniques** *J. Jonuscheit, Fraunhofer IPM, Kaiserslautern, Germany*	**Tu.1.H.1** **Modeling and Simulation of Ultrasonic Testing – a Practical Guide by the Sub-Committee ‚Modeling and Imaging' within the DGZfP Committee of Experts on UT** *M. Spies, Fraunhofer IZFP, Saarbrücken, Germany*	**Tu.1.I.1** 08:30 **Realistic Approaches for Achieving NDE-based Characterization in Complex Materials/ Structures** *E.A. Lindgren, US Air Force Research Laboratory, Wright-Patterson, USA*
09:00	**Tu.1.E.2** **Detecting Bolt Loosening on the Basis of Vibration Signals as Low as a few Hertz** *N. Yusa, Tohoku University, Miyagi, Japan*	**Tu.1.F.2** **Magnetic characterization of wear due to fatigue and inspection of flaws in small diameter wire ropes** *A. Martinez-de-Guerenu, CEIT, San Sebastián, Spain*	**Tu.1.G.2** **Modeling of TE mode transducer for nondestructive testing of defects inside a metal pipe using microwaves** *K. Sasaki, Tohoku University, Miyagi, Japan*	**Tu.1.H.2** **Elastic Wave Propagation in Polycrystalline Materials using Ray Tracing Model** *S.B. Shivaprasad, Indian Institute of Technology Madras, Chennai, India*	**Tu.1.I.2** 09:00 **Inspection of the Aluminium Alloys Degradation in Aging Aircraft Components Based on Eddy Current Method Application** *L. Kovalchuk, State enterprise „ANTONOV", Kyiv, Ukraine*
09:20	**Tu.1.E.3** **In-service Detection of Longitudinal Cracks on Drill Pipe using Induced Circumferential Current** *X. Yuan, China University of Petroleum, Qingdao, China*	**Tu.1.F.3** **Detecting and Quantifying High Temperature Hydrogen Attack (HTHA)** *N. Trimborn, Mistras Group, Spijkenisse, Netherlands*	**Tu.1.G.3** **3D Terahertz Imaging of High Temperature Lightweight Materials** *A. Konschak, Fraunhofer-Zentrum HTL, Bayreuth, Germany*	**Tu.1.H.3** **Simulation of Ultrasonic Wave Propagation in Anisotropic Heterogeneous Welds embedded in a Polycrystalline Base Material** *F. Schubert, Fraunhofer IKTS, Dresden, Germany*	**Tu.1.I.3** 09:20 **Development of CFRP Aircraft Doors with the Interaction of NDT and Strength Analysis** *P. Schmiedel, Airbus Helicopters, Donauwörth, Germany*
09:40	**Tu.1.E.4** **Evaluation of Bolt Loosening using a Hybrid Approach Based on Contact Acoustic Nonlinearity** *Z. Zhang, Hong Kong Polytech. Univ., Hong Kong, China*	**Tu.1.F.4** **Nonlinear Ultrasonic Technique for Quantitative Evaluation of Strength Degradation** *K.-Y. Jhang, Hanyang University, Seoul, South Korea*	**Tu.1.G.4** **Terahertz Spectrum of Energetic Mixed Crystals, Phase-Transition Crystals and Co-Crystals** *Y. Du, China Academy of Engineering Physics, Mianyang, China*	**Tu.1.H.4** **UT Simulation of Embedded Parametric Defects Using a Hybrid Model Based Upon Spectral Finite Element and Domain Decomposition Methods** *P. Calmon, CEA, Gif-sur-Yvette, France*	**Tu.1.I.4** 09:40 **Structural Health Monitoring of Compressor and Turbine Blades with the Use of Variable Reluctance Sensor and Tip Timing Method** *M. Witos, Air Force Institute of Technology, Warsaw, Poland*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Tu.2.A *RAILWAY ROLLING STOCK – ULTRASONIC PHASED ARRAY* *M. Carboni, G. Vogt*	**Tu.2.B** *DIGITAL RADIOLOGY AND RADIOGRAPHY 1* *U. Ewert, J. Kastner*	**Tu.2.C** *STRESS ANALYSIS – MAGNETIC METHODS* *J. Panakkal, H. Walaszek*	**Tu.2.D** *RELIABILITY – ELECTROMAGNETIC INSPECTION* *S. Dugan, R. Holstein*
10:30	**Tu.2.A.1** **Study of Railway Axle Ultrasonic Testing Technology and Ability Improvement** *C. Peng, Southwest Jiaotong University, Chengdu, China*	**Tu.2.B.1** **A New Approach on Dual-energy DR using Time-Delay-and-Integration Sensor** *N. Luu, X-Scan Imaging Corporation, San Jose, USA*	**Tu.2.C.1** **Nondestructive Monitoring of the Variations in Microstructure and Residual Stress in the Carburized Steels** *C.H. Gür, METU, Ankara, Turkey*	**Tu.2.D.1** **Eddy-Current Ply Lay-up Determination in Carbon-Fibre Reinforced Polymers (CFRP)** *R. Hughes, University of Bristol, UK*
10:50	**Tu.2.A.2** **Advances in Ultrasonic Inspection of High Speed and High Integrity Rail Wheels** *A. Desai, GE Sensing & Inspection Technologies, Lewistown, USA*	**Tu.2.B.2** **Development and Applications of High Energy Industrial Computed Tomography In China** *Y. Xiao, Tsinghua University, Beijing, China*	**Tu.2.C.2** **Advance in Stress Measurement via Barkhausen Noise** *V.V. Vengrinovich, National Academy of Science of Belarus, Minsk, Belarus*	**Tu.2.D.2** **Effect of data amount on Probability of Detection estimation: Application to Eddy current testing** *T. Goursolle, TURBOMECA - SAFRAN, Bordes, France*
11:10	**Tu.2.A.3** **Near-Service Ultrasonic Testing of Solid Axles on Vehicles with Corrosive Load and its Technical Implementation – An Abstract of Precommissioning Inspection at DB Schenker Rail** *S. Bethke, DB Systemtechnik, Brandenburg-Kirchmöser, Germany*	**Tu.2.B.3** **Nondestructive Evaluation Utilizing Imaging Plates for Field Radiography Applications** *B. White, Carestream NDT, Rochester, USA*	**Tu.2.C.3** **Nondestructive Characterization of Ageing Phenomena in Heat Resistant Steels by Means of Micromagnetic Techniques** *M. Rabung, Fraunhofer IZFP, Saarbrücken, Germany*	**Tu.2.D.3** **Consideration of NDT Results Ambiguity While Estimating Rope Residual Strength by an Example of Drilling Rig Rope Monitoring System** *D. Slesarev, INTRON PLUS, Moscow, Russia*
11:30	**Tu.2.A.4** **RAWIS: The Next Generation of Automated Inspection Systems for Railway Wheels** *A. Knam, ROSEN Technology, Stutensee, Germany*	**Tu.2.B.4** **Improved Safety & Security of Gamma-Radiography in Germany** *T. Schmidbauer, IT-Service Leipzig, Haan, Germany*	**Tu.2.C.4** **Investigation of Magnetic Barkhausen Noise and Dynamic Domain Wall Behavior for Stress Measurement** *Y. Gao, Nanjing University of Aeronautics and Astronautics, Nanjing, China*	**Tu.2.D.4** **Calibration of Pulsed Eddy Current Detection of Cracks Using Robust Statistic** *T. Krause, Royal Military College of Canada, Kingston, Canada*
11:50	**Tu.2.A.5** **Increasing the Sensitivity of Ultrasonic Phased Array Wheel Set Axle Inspection by Using Signal Processing** *T. Heckel, BAM, Berlin, Germany*	**Tu.2.B.5** **Photon Counting and Energy Discriminating X-Ray Detectors – Benefits and Applications** *D. Walter, BAM, Berlin, Germany*	**Tu.2.C.5** **Development of the Cable Tension Testing Instrument Based on the Permanent Magnetizer** *X. Wu, Huazhong University of Science and Technology, Wuhan, China*	**Tu.2.D.5** **Pulsed Eddy Current Detection of Second Layer Cracks at Ferrous Fasteners in Aircraft Lap-Joint Structures** *T. Krause, Royal Military College of Canada, Kingston, Canada*
12:10	Lunch			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Tu.2.E *CONDITION MONITORING 2* *F. Schubert, S. Zeroug*	**Tu.2.F** *MATERIAL DEGRADATION 2* *B. Fischer, K. Szielasko*	**Tu.2.G** *NON-CONTACT ULTRASONICS* *F. Schlawne, H. Wang*	**Tu.2.H** *MODELLING AND DATA PROCESSING – FUNDAMENTALS 2* *N. Nakagawa, A. Tamburrino*	**Tu.2.I** *AVIATION 1* *E.A. Lindgren, R. Oster*
10:30	**Tu.2.E.1** **Measurement of Acoustic Emission Source Location Accuracy loss of Concrete under Bending** *E. Tsangouri, Vrije Universiteit Brussel, Belgium*	**Tu.2.F.1** **Examination of the Service Life of Power System Components made of P91 Steel (X10CrMoVNb9-1) Using Impedance Spectroscopy and a Magnetic Resonance Technique** *Z.H. Zurek, Silesian University of Technology, Katowice, Poland*	**Tu.2.G.1** **Focusing Air-Coupled Ultrasonic Transducers Based on Ferroelectrets** *F. Schadow, BAM, Berlin, Germany*	**Tu.2.H.1** **Imaging Beyond Aliasing** *A. Volker, TNO, Delft, Netherlands*	**Tu.2.I.1** 10:30 **Dynamic and Static Determinations for Anisotropic Material Constants of Additive Manufacture in Nondestructive Testing** *Y.-H. Huang, Nat. Taiwan Univ. of Science and Technology, Taipei, Taiwan*
10:50	**Tu.2.E.2** **Method for Checking a Make-Up State of a Tubular Threaded Seal** *S. Petit, Vallourec, Aulnoye-Aymeries, France*	**Tu.2.F.2** **Novel Ultrasonic NDT Technique for Early Detection of Creep Damage in Welded Steel Pipes** *L. Mazeika, Kaunas University of Technology, Kaunas, Lithuania*	**Tu.2.G.2** **Non-destructive Testing of Future Rocket Boosters Using Air-Coupled Ultrasound** *A. Huber, German Aerospace Center, Augsburg, Germany*	**Tu.2.H.2** **Magnetic NDT for Steel Microstructure Characterisation – Modelling the Effect of Ferrite Grain Size on Magnetic Properties** *L. Zhou, University of Warwick, Coventry, UK*	**Tu.2.I.2** 10:50 **Animated View for Detection of Hairline Fracture of the Cooling Hole of a Tornado Jet Turbine Blade by a CAD Based on the De-Convolution Technique** *K.-M. Chui, Image Enhancement Technology, Uxbridge, UK*
11:10	**Tu.2.E.3** **In Situ Thermography of crack growth in sandwich shell segments with manufactured imperfections** *D. Nielow, BAM, Berlin, Germany*	**Tu.2.F.3** **Evaluation of the Fatigue State of Equipment from Austenitic Stainless Steels According to the Degree of Acquired Ferromagnetism and Accumulated Microdamages by Nondestructive Method to Measure the Magnetic Characteristic, the Coercive Force** *R. Solomakha, Special Scientific Engineering, Kharkiv, Ukraine*	**Tu.2.G.3** **Development of Air-Coupled Ultrasonic Transducers based on PMN-PT Type Single Crystals** *R. Kazys, Kaunas University of Technology, Kaunas, Lithuania*	**Tu.2.H.3** **Acoustoelasticity of polycrystalline materials; a formalism based on the self-consistent elastic constants** *J. Turner, University of Nebraska-Lincoln, USA*	**Tu.2.I.3** 11:10 **Development of Leakage Control Technology of Unclosed Constructions in Aviation** *M. Kazakevych, KOLORAN, Kyiv, Ukraine*
11:30	**Tu.2.E.4** **Requalification of LPG tanks in Europe: Verifying the structural integrity by monitoring the pressure test with acoustic emission** *G. Lackner, TÜV AUSTRIA SERVICES, Wien, Austria*	**Tu.2.F.4** **Fatigue Detection of Steel Plate Using Magnetic Flux Leakage Method** *K. Sakai, Okayama University, Japan*	**Tu.2.G.4** **Air-Coupled Ultrasonic Inspection Technique as NDT Tool for Evaluation of Porous Wound Oxide/Oxide Composite Ceramics** *V. Vasechko, German Aerospace Center, Köln, Germany*	**Tu.2.H.4** **3D modeling and experimental validation of flaw responses provided by Magnetic Flux Leakage NDT system inspecting ferromagnetic pipes** *G. Wolf, Vallourec, Aulnoye-Aymeries, France*	**Tu.2.I.4** 11:30 **NDT Standards for Additive Manufacture – a Review of Progress** *B. Dutton, The Manufacturing Technology Centre, Coventry, UK*
11:50	**Tu.2.E.5** **Rotating Machine Diagnosis using Smart Feature Selection under Non-Stationary Operating Conditions** *P.S. Heyns, University of Pretoria, South Africa*	**Tu.2.F.5** **Coercivity of Metal as a Measure of its Damage at Micro Level in Assessing Fatigue, as well as in Problems of Restoration of Mechanical Properties** *R. Solomakha, Special Scientific Engineering, Kharkiv, Ukraine*	**Tu.2.G.5** **New Developments for Air-coupled Ultrasonic Techniques** *W. Hillger, Ingenieurbüro Dr. Hillger, Braunschweig, Germany*	**Tu.2.H.5** **Purity Characterisation of Aluminium Melts by Ultrasonic Scattering Measurements: First Tests on a Model Suspension** *T. Waschkies, Fraunhofer IZFP, Saarbrücken, Germany*	**Tu.2.I.5** 11:50 **Smart NDT Tools: Connection and Automation for Efficient and Reliable NDT Operations** *F. Guibert, Airbus Group Innovations, Toulouse, France*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Tu.3.A *ULTRASONIC PHASED ARRAY 2* *D. Chauveau, Y. Oberdörfer*	**Tu.3.B** *SURFACE STRUCTURES* *H. Heuer, A. Lamarre*	**Tu.3.C** *STRESS ANALYSIS – ULTRASONIC TESTING AND REFERENCES* *P. Cawley, E. Quintana*	**Tu.3.D** *RELIABILITY – ULTRASONIC TESTING 2* *U. Ronneteg, A. Zoëga*
13:30	**Tu.3.A.1** **New optimized 2D Matrix Phased-Array Probe for Large Rotor Shafts On-site Inspection / DGS Sizing Diagram Simulation Tool** *G. Maes, Zetec, Quebec, Canada*	**Tu.3.B.1** **Advances in 3D Video Borescope Measurement Technologies for Defect Characterization in Power Generation** *T. Ward, General Electric, Skaneateles, USA*	**Tu.3.C.1** **Nondestructive Micro-magnetic Materials Characterization at High Measuring Speed by Means of a Variant of 3MA Approach – 3MA-X8** *R. Tschuncky, Fraunhofer IZFP, Saarbrücken, Germany*	**Tu.3.D.1** **An Innovative Pipe End Inspection System and POD Analysis of its Capability** *T. Schmitte, Salzgitter Mannesmann Forschung, Duisburg, Germany*
13:50	**Tu.3.A.2** **FAAST Very Fast Phased Array System** *X. Harrich, SOCOMATE International, Crecy La Chapelle, France*	**Tu.3.B.2** **A Portable Magnetic Flux Leakage Testing System for Industrial Pipelines Based on Circumferential Magnetization** *K. Zhao, Huazhong University of Science and Technology, Wuhan, China*	**Tu.3.C.2** **Ultrasonic Nondestructive Testing and Regulation Technology of Residual Stress** *C. Xu, Beijing Institute of Technology, Beijing, China*	**Tu.3.D.2** **Ultrasonic Sol-Gel Arrays for Monitoring High-Temperature Corrosion** *T.J. Eason, Iowa State University, Ames, USA*
14:10	**Tu.3.A.3** **Scalability and advanced inspection methods in ultrasonic phased array instrumentation** *E. Grondin, Olympus Scientific Solutions Americas, Quebec City, Canada*	**Tu.3.B.3** **Acousto-Optic Module for Combined Remote Visual and Spectral Endoscopic Inspection** *A. Machikhin, NPO Energomash, Khimky, Russia*	**Tu.3.C.3** **Image Reconstruction of Corrosion under Coating Film by Dynamic Shear Strain Analysis of Lamb Waves** *R. Md. Sanaul, Saga University, Saga-shi, Japan*	**Tu.3.D.3** **Integration of Guided Wave Testing (GWT) with Risk Based Inspection (RBI)** *M. Evans, Guided Ultrasonics, Brentford, UK*
14:30	**Tu.3.A.4** **Comparison of Ultrasonic Phased Array Probes Based on PMN-PT and PZT 1-3 Composites** *S. Walter, Fraunhofer IKTS, Dresden, Germany*	**Tu.3.B.4** **The Use of Permanent Magnets for Magnetic Particle Inspection** *K. Cain, Chimaera Inspection Services, Pretoria, South Africa*	**Tu.3.C.4** **Neutron Diffraction: the forgotten non-destructive technique for Residual Stress Analysis ... and more** *G. Bruno, BAM, Berlin, Germany*	**Tu.3.D.4** **Comparison PA and TOFD vs. Radiography: New technologies lead to a more efficient approach** *N. Trimborn, Mistras Group, Spijkenisse, Netherlands*
14:50	**Tu.3.A.5** **Check Valve Diagnosis by Sectorial Scanning Phased Array Ultrasonic Technique** *P.I. Resa López, Tecnatom, San Sebastian de los Reyes, Spain*	**Tu.3.B.5** **Monitoring of Fatigue and Stress-Strain State of Structures and Equipment with New Magnetic Transducer** *R. Solomakha, Special Scientific Engineering, Kharkiv, Ukraine*	**Tu.3.C.5** **Determination of preload in bolts by ultrasound without referencing in unloaded state** *M. Becker, Fraunhofer IZFP, Saarbrücken, Germany*	**Tu.3.D.5** **Reliability Analysis of the Ultrasonic Inspection System for the Inspection of Hollow Railway Axles** *M. Pavlovic, BAM, Berlin, Germany*
15:10	Break			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Tu.3.E *ICNDT WG3 – CONDITION MONITORING 2* *P. Milligan, G. Por*	**Tu.3.F** *ROBOTICS ASSISTED NDE 2* *W. Adebahr, C. Vienne*	**Tu.3.G** *NANO-TECHNOLOGIES AND HIGH-RESOLUTION NDT 1* *R. Hanke, C. Schlepütz*	**Tu.3.H** *MODELLING AND DATA PROCESSING – ALGORITHMS 1* *G.-R. Jaenisch, G. Rubinacci*	**Tu.3.I** *AVIATION 2* *H.-U. Baron, J. Biddulph*
13:30	**Tu.3.E.1** **Space Terahertz and Microwave Instrumentation for Integrity Inspection of Non-conducting Composites** *A. Belitskaya, Dutch Terahertz Inspection Services, Noordwijk, Netherlands*	**Tu.3.F.1** **On-Wing Gas-Turbine-Inspection and -Maintenance (Water Jet Cleaning of Inner Surfaces)** *R. Weger, SCHÖLLY FIBEROPTIC, Denzlingen, Germany*	**Tu.3.G.1** **Fracture Properties of 2D solids: Graphene, Boronitrene and MoS2** *P. Hess, University of Heidelberg, Germany*	**Tu.3.H.1** **Multi-Dimensional Optimisation Inversion Methods Applied to the Ultrasound Response of Composites for 3D Profiling of Porosity** *R. Tayong Boumda, University of Bristol, UK*	**Tu.3.I.1** 13:30 **Thermosonic Testing with Phased Matched Guided Wave Excitation** *M. Rahammer, University of Stuttgart, Germany*
13:50	**Tu.3.E.2** **A Discussion on the Accuracy of Vold-Kalman Filter Order Tracking for Rotating Machinery Condition Monitoring** *K. Wang, University of Electronic Science and Technology of China, Chengdu, China*	**Tu.3.F.2** **Pipe Robots for Internal Inspection, Non-Destructive Testing and Machining of Pipelines** *A. Reiss, INSPECTOR SYSTEMS, Rödermark, Germany*	**Tu.3.G.2** **Talbot- Lau interferometry for non-destructive testing** *Y. Shashev, BAM, Berlin, Germany*	**Tu.3.H.2** **The Quantitative Study of TOFD Influenced by the Effective Bandwidth of Autoregressive Spectral Extrapolation** *S. Jin, Dalian University of Technology, Dalian, China*	**Tu.3.I.2** 13:50 **Radiographic Inspection – Film Replacement with Digital Detector Arrays in Aerospace Applications** *F. Schulte, Alcoa Power and Propulsion TITAL, Bestwig, Germany*
14:10	**Tu.3.E.3** **Universal Single Sensor for Machinery Condition Monitoring: Vibration, Bearing Health and Temperature** *G. Zusman, Vibration Measurement Solutions, Houston, USA*	**Tu.3.F.3** **A View from all Perspectives** *F. Eder, Descam 3D Technologies, München, Germany*	**Tu.3.G.3** **Comparison between Traditional Non-Destructive Techniques and Phase Contrast X-Ray Imaging applied to Aeronautical Carbon Fibre Reinforced Polymer** *M. Gresil, University of Manchester, UK*	**Tu.3.H.3** **Comparison of Metal Artefact Reduction Algorithms from Medicine Applied to Industrial XCT Applications** *C. Gusenbauer, FH OÖ Forschung & Entwicklung, Wels, Austria*	**Tu.3.I.3** 14:10 **Non-Destructive Damage Detection and Material Characterization of Turbine Components Using Megahertz Range Induction Thermography in Pulsed Mode** *W. Frackowiak, Leibniz Universität Hannover, Garbsen, Germany*
14:30	**Tu.3.E.4** **Damage Reconstruction in Complex Composite Structures using Lamb Waves** *F. Raddatz, German Aerospace Center, Hamburg, Germany*	**Tu.3.F.4** **Robotic Inspection Solutions for Petrochemical Pressure Vessels, developed and tested in the PETROBOT project** *B. van den Bos, Dekra Industrial, Linköping, Sweden*	**Tu.3.G.4** **Structural characterization by Raman spectroscopy** *J. Opitz, Fraunhofer IKTS, Dresden, Germany*	**Tu.3.H.4** **The Non-contact Acoustic Inspection Method for Concrete Structures using the Defect Detection Algorithm that Combined Spectrum Entropy with Vibrational Energy Ratio** *K. Sugimoto, Toin University of Yokohama, Japan*	**Tu.3.I.4** 14:30 **Fan slot inspection with ECA** *V. Massol, SAFRAN Snecma, Moissy Cramayel, France*
14:50	**Tu.3.E.5** **Novel Signal Processing for Condition Monitoring and NDT: Present and Future** *L. Gelman, Cranfield University, UK*	**Tu.3.F.5** **Customer-specific inspection services and inspection systems using innovative tailor-made hard- and software** *F. Wolfsgruber, AREVA, Erlangen, Germany*	**Tu.3.G.5** **Non-destructive, non-contact evaluation of electrical parameters of silicon solar cells using photocarrier radiometry and camera based high-frequency lock-in carrierography (LIC) imaging** *A. Mandelis, University of Toronto, Canada*	**Tu.3.H.5** **A Study of Guided Wave Propagation in Timber Pole using Spectral Finite Element Method** *M. Subhani, Deakin University, Waurn Ponds, Australia*	**Tu.3.I.5** 14:50 **NDT Diagnosis Automation: a Key to Efficient Production in the Aeronautic Industry** *S. Barut, Airbus Group Innovations, Toulouse, France*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Tu.4.A *SEMI-FINISHED PRODUCTS – PHASED ARRAY* *A. Khare, T. Orth*	**Tu.4.B** *COMPUTED TOMOGRAPHY – DEFECTS* *O. Guiraud, T. Wenzel*	**Tu.4.C** *MEDICINE AND BIOLOGY* *F. Gomez Fraile, J. Opitz*	**Tu.4.D** *RELIABILITY: HUMAN FACTORS* *R. Holstein, D. Marshall*
15:40	**Tu.4.A.1** **High-speed Ultrasonic Testing of ERW Pipes** *W.A.K. Deutsch, KARL DEUTSCH Prüf- und Messgerätebau, Wuppertal, Germany*	**Tu.4.B.1** **Optimization and image quality enhancement in inline computed tomography** *M. Schrapp, Siemens, München, Germany*	**Tu.4.C.1** **Mikro Computer Tomography (µCT) Set-Up for Long-Term Serial Measurements, Image Evaluation, and Subsequent Compressive Strength Tests on Frozen Sheep Vertebrae for Osteoporosis Research** *B. Illerhaus, BAM, Berlin, Germany*	**Tu.4.D.1** **Safety and Organizational Culture in NDT Matter** *B. Fahlbruch, TÜV NORD EnSys Hannover, Berlin, Germany*
16:00	**Tu.4.A.2** **Automated Testing of bar stock Materials for Aerospace Applications with advanced automation features** *J. Maier, Böhler Edelstahl, Kapfenberg, Austria*	**Tu.4.B.2** **Evaluation of In-Process Monitoring for Additive Manufacturing by X-Ray Micro Tomography** *B. Henkel, MTU Aero Engines, München, Germany*	**Tu.4.C.2** **Three-dimensional Iterative X-ray Tomography Combined with Radiation Therapy** *V.V. Vengrinovich, National Academy of Science of Belarus, Minsk, Belarus*	**Tu.4.D.2** **POD Evaluation using Simulation: Progress and Perspectives Regarding Human Factors** *N. Dominguez, Airbus Group Innovations, Toulouse, France*
16:20	**Tu.4.A.3** **Ultrasonic Rotational Test Mechanics with Integrated Phased-Array-Technology for Gapless Detection of Oblique Flaws up to ± 20° by Applying the Paint Brush Method** *S. Schmitz, GE Sensing & Inspection Technologies, Hürth, Germany*	**Tu.4.B.3** **3D Crack Analysis in Hydrogen Charged Supermartensitic Stainless Steel with Synchrotron Refraction CT** *R. Laquai, BAM, Berlin, Germany*	**Tu.4.C.3** **Wavelength-Modulated Differential Photoacoustic Spectroscopy (WM-DPAS) for very early detection of breast cancer and blood oxygenation level quantification** *A. Mandelis, University of Toronto, Canada*	**Tu.4.D.3** **How NDT Companies Can Benefit From Human Factors Knowledge** *B. McGrath, AMEC, Warrington, UK*
16:40	**Tu.4.A.4** **Development of High Sensitivity Ultrasonic Inspection System for Welding Part of HFW Pipes** *Y. Matsui, JFE Steel, Kawasaki, Japan*	**Tu.4.B.4** **CT Reconstruction on Unstructured Mesh for Multi-material Object** *Y. Nagai, The University of Tokyo, Japan*	**Tu.4.C.4** **Acoustic Emission Analysis for Material Characterization of Sea Urchin Spines** *A. Jüngert, Materials Testing Institute University of Stuttgart, Germany*	**Tu.4.D.4** **NDT in Maritime Industries – in the Tense Environment of Economy, Human Factor and Ecology** *H. Rieder, Fraunhofer IZFP, Saarbrücken, Germany*
17:00	**Tu.4.A.5** **Inspection of Forged Disc Materials with an Adapted Annular Array and Dynamic Depth Focusing** *M. Barth, Fraunhofer IKTS, Dresden, Germany*	**Tu.4.B.5** **The Development of the first On-Line industrial CT detection System of china** *D. Hu, China Academy of Engineering Physics, Mianyang, China*	**Tu.4.C.5** **Nuclear Magnetic Resonance Imaging Applied to the Non-destructive Inspection of Fiber-Reinforced Polymer Matrix Composite Laminates Devised to Structural Surgical Implants in Humans** *J. Tarpani, University of Sao Paulo, Sao Carlos, Brazil*	**Tu.4.D.5** **Human Factors in Non-Destructive Testing: A Re-Emerging Field** *M. Bertovic, BAM, Berlin, Germany*

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Tu.4.E *ICNDT WG3 – CONDITION MONITORING 3* *A. Belitskaya, E. Hristoforou*	**Tu.4.F** *ROBOTICS ASSISTED NDE 3* *E. Romero*	**Tu.4.G** *NANO-TECHNOLOGIES AND HIGH-RESOLUTION NDT 2* *S. Lindemann, T. Santos*	**Tu.4.H** *MODELLING AND DATA PROCESSING – ALGORITHMS 2* *C. Bellon, T. Stepinski*	**Tu.4.I** *AVIATION – COMPOSITES* *V. Massol, H. Speckmann*
15:40	**Tu.4.E.1** **The New Nonlinear Nonstationary Higher Order Spectra for Vibration Monitoring of Rolling Bearings** *L. Gelman, Cranfield University, UK*	**Tu.4.F.1** **Phased-Array Assisted Manual Nozzle Inspection Solution with Data Archiving Capability** *N. Badeau, Olympus Scientific Solutions Americas, Quebec City, Canada*	**Tu.4.G.1** **CT Parameter Studies for Porous Metal Samples** *S. Lindemann, Daimler, Stuttgart, Germany*	**Tu.4.H.1** **FEA Based Simulation of Ultrasonic Wave propagation in Isotropic and Orthotropic Media** *D. Datta, Indian Institute of Engineering Science and Technology, Shibpur, India*	**Tu.4.I.1** 15:40 **„Innovation Drives Quality" New Generation of High Resolution Acoustical Imaging Technique for Material Characterization and NDT In Automotive and Aircraft Manufacturing** *R.G. Maev, University of Windsor, Ontario, Canada*
16:00	**Tu.4.E.2** **Vibration Monitoring to Planetary Gearboxes through Order Tracking Techniques** *K. Wang, University of Electronic Science and Technology of China, Chengdu, China*	**Tu.4.F.2** **New Use of a 3 Degrees Freedom Encoded Arm for Inspection of Welds with a Phased Array Probe** *D. Flotté, Institut de Soudure Industrie, Yutz, France*	**Tu.4.G.2** **Study on Optical Properties of Nano-Cement Mortar using THz/sub-mm Electro-Magnetic Waves** *H.-Y. Kim, Korea Railroad Research Institute, Uiwang-si, South Korea*	**Tu.4.H.2** **Sparse Deconvolution for Ultrasonic Non Destructive Testing Applications** *E. Carcreff, The Phased Array Company, West Chester, USA*	**Tu.4.I.2** 16:00 **Non Destructive Testing of CFRP in the Design Process. A Generic Approach to Describe and Optimize Non Destructive Testing.** *M. Mosch, Airbus Helicopters, Donauwörth, Germany*
16:20	**Tu.4.E.3** **Advanced Acoustic Detection System Monitoring Nuclear Power Plant Components** *G. Por, College of Dunaujvaros, Hungary*	**Tu.4.F.3** **3D-Robotized Air-Coupled Ultrasound Measurements of Large Components** *W. Adebahr, Universität Stuttgart, Germany*	**Tu.4.G.3** **Optical Inspection of Plastic Packagings** *A. Lehmann, Fraunhofer IKTS, Dresden, Germany*	**Tu.4.H.3** **Phased Array UT Device Utilizes USB 3.0 to Increase Data Throughput for Full-Matrix Capture** *G. Dao, AOS NDT, Cincinnati, USA*	**Tu.4.I.3** 16:20 **Ultrasonic Phased Array Inspection of Honeycomb Sandwich Structures with Paralell FRP Surfaces and Tapered FRP Surfaces with an Angle of 7 Degree as an Alternative for ELCH Inspection** *A. Rodríguez Álvarez, Testia, Bremen, Germany*
16:40	**Tu.4.E.4** **Infrared Thermography for CM and NDT** *T. Clausing, Drysdale & Associates, Cincinnati, USA*	**Tu.4.F.4** **Geometric Calibration in Active Thermography Applications** *T. Schmidt, German Aerospace Center, Augsburg, Germany*	**Tu.4.G.4** **On-Wing Gas-Turbine-Inspection and -Maintenance (Inspection of Very Small Surface Defects)** *R. Weger, SCHÖLLY FIBEROPTIC, Denzlingen, Germany*	**Tu.4.H.4** **Damage Detection Algorithm Based on Dynamic Governing Differential Equation of Deflection** *S. Wildy, Flinders University of South Australia, Clovelly Park, Australia*	**Tu.4.I.4** 16:40 **Mobile Active Thermography System for In-Service NDI of Composites – Latest Developments and Applications** *C. Ferber, AT – Automation Technology, Bad Oldesloe, Germany*
17:00	**Tu.4.E.5** **ICNDT Guide and Recommendations for Qualification and Certification of Condition Monitoring Inspection Personnel** *P. Milligan, Australian Institute for NDT (AINDT), North Melbourne, Australia*	**Tu.4.F.5** **ENIQ-Qualified Visual Examinations by Means of a Remote-Controlled Submarine** *J. Heinsius, AREVA, Erlangen, Germany*	**Tu.4.G.5** **Quantitative Characterization of Microstructure Dynamics using Ultra-fast X-ray Tomographic Microscopy** *C. Schlepütz, Paul Scherrer Institut, Villigen, Switzerland*	**Tu.4.H.5** **Advanced visualization methods for tracking the evolution of features in 4D-XCT data** *A. Amirkhanov, FH Oberösterreich, Wels, Austria*	**Tu.4.I.5** 17:00 **Damage detection and localization in the composite aerospace components** *M. Stefaniuk, Air Force Institute of Technology, Warsaw, Poland*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	We.1.A *ENERGY GENERATION (NUCLEAR) – ULTRASONIC TESTING* *E. Doh, A. Schumm*	**We.1.B** *IMAGING – RECONSTRUCTION 1* *F. Honarvar, M. Schickert*	**We.1.C** *EDDY CURRENT TESTING* *J.A. Conte, G. Mook*	**We.1.D** *RELIABILITY – POD* *T.J. Eason, M. Pavlovic*
08:30	**We.1.A.1** **A Phased Array Ultrasonic Testing of a Manual Thick Austenitic Weld – Feedback** *D. Flotté, Institut de Soudure Industrie, Yutz, France*	**We.1.B.1** **Ultrasonic phased array three-dimensional imaging using TFM-based slice** *C. Sun, Harbin Institute of Technology, Harbin, China*	**We.1.C.1** **Numerically Enhanced Eddy Current Inspection of Corrosion Losses of Aircraft Structures** *J. Szlagowska-Spychalska, Warsaw University of Technology, Poland*	**We.1.D.1** **POD as a Tool Evaluating the Quality of Optical NDT Approaches** *M. Rauhut, Fraunhofer ITWM, Kaiserslautern, Germany*
08:50	**We.1.A.2** **Robot-based In-Process Examination of ITER Dome and First-Wall Panels based on Novel Ultrasonic Tomography Approach** *A. Bulavinov, I-Deal Technologies, Saarbrücken, Germany*	**We.1.B.2** **Multi-Modes Electromagnetic Ultrasonic Lamb Wave Tomography Imaging for Variable-depth Defects in Metal Plate** *Y. Zhang, Tsinghua University, Beijing, China*	**We.1.C.2** **Thickness Detection of Corroded Steel Plate by Low Frequency Eddy Current Testing** *Y. Haga, Okayama University, Japan*	**We.1.D.2** **Use of Technical Diagnostics at an Assessment of Risk of Failure** *V. Musatov, GIAP-DIST, Moscow, Russia*
09:10	**We.1.A.3** **Ultrasonic Testing of ITER Toroidal Field Coil Cases Closure Welds** *P.I. Resa López, Tecnatom, San Sebastian de los Reyes, Spain*	**We.1.B.3** **A Feasibility Study of the Guided Wave Tomography for Spot Weld Inspection** *S. Kitazawa, Hitachi, Hitachi-shi, Ibaraki, Japan*	**We.1.C.3** **Application of Slofec® and Laser Technology for Testing of Buried Pipes** *G. Scheer, TMT – Test Maschinen Technik, Schwarmstedt, Germany*	**We.1.D.3** **Reliability Aspects and Multi-Parameter POD Formulation for Guided Wave Based SHM Techniques** *A. Gianneo, Politecnico di Milano, Italy*
09:30	**We.1.A.4** **Study of ultrasonic propagation through Kelvin-Helmoltz instabilities for monitoring high-temperature fluid** *J. Moysan, Aix Marseille University, Aix-en-Provence, France*	**We.1.B.4** **Electronic reference images for flaw indications in welds and castings** *U. Zscherpel, BAM, Berlin, Germany*	**We.1.C.4** **Detection and Imaging of Internal Cracks by Tangential Magnetic Field Component Analysis using Low-Frequency Eddy Current Testing** *T. Yasugi, Okayama University, Japan*	**We.1.D.4** **Evaluating RT systems with a new POD approach** *D. Kanzler, Berlin, Germany*
09:50	**We.1.A.5** **Numerical simulation of ultrasonic wave propagation in a sodium cooling system in an inhomogeneous temperature field using the spectral-element method** *M. Nagaso, CEA, Saint-Paul-lès-Durance, France*	**We.1.B.5** **Imaging multilayered objects with complex geometry** *T. Stepinski, AGH University, Cracow, Poland*	**We.1.C.5** **NDT of Gas Storage Sphere Legs through 2" of fireproofing** *A. Vajpayee, Russell NDE Systems, Edmonton, Canada*	**We.1.D.5** **Analysis and Synthesis of NDT Reliability using the extended Modular Model** *C. Müller, BAM, Berlin, Germany*
10:10	Break			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	We.1.E *COMPOSITE MATERIALS – CHARACTERISATION* *Z. Fan, M. Kreutzbruck*	**We.1.F** *MAGNETIC AND PENETRANT TESTING* *H.W. Berg, M. Cevenini*	**We.1.G** *RAILWAY INFRASTRUCTURE* *A. Knam, C. Peng*	**We.1.H** *MODELLING AND DATA PROCESSING – EDDY CURRENT* *T. Sollier, T. Uchimoto*	**We.1.I** *CFRP AIRCRAFT STRUCTURES* *R. Henrich, S. Rolet*
08:30	**We.1.E.1** **Non-Destructive Assessment of Fiber Alignment in CFRP using Eddy Current Testing with Differential Type Probe** *H. Kosukegawa, Tohoku University, Sendai, Japan*	**We.1.F.1** **Technological Status of LED Techniques – Application in Non Destructive Testing with Special Emphasis on Magnetic Particle, Penetrant, Visual and Thermographic Inspection** *R. Link, Kerpen, Germany*	**We.1.G.1** **Railway Track Stress-Strain State Control – the Missing Link in the Railroad Traffic Safety** *A. Dubov, Energodiagnostika, Reutov, Moscow region, Russia*	**We.1.H.1** **Eddy Current Pulsed Thermography for Quantitatively Detecting Metal Subsurface Defect** *C. Xu, China University of Petroleum, Qingdao, China*	**We.1.I.1** 08:30 **µ-Computed Tomography as a Tool for Inner Structure and Defect Characterization of Materials** *R. Stößel, Airbus Group Innovations, Ottobrunn, Germany*
08:50	**We.1.E.2** **Inspection of Aeronautic Multi-Layered Composite Structures using 3D Terahertz Techniques** *J. Jonuscheit, Fraunhofer IPM, Kaiserslautern, Germany*	**We.1.F.2** **Minimization of Impacts on the User's Health and the Environment by PT and MT Consumables** *K. Alward, Pfinder, Böblingen, Germany*	**We.1.G.2** **A Study on the Influence of the RCF Crack Propagation Angle and the Crack Shape to the ACFM Signal** *J. Shen, University of Warwick, Coventry, UK*	**We.1.H.2** **Improved Modeling of the 3MA System's Incremental Permeability for on-Line Steel Strip Property Assessment** *P. Meilland, Arcelor Mittal, Maisières-lès-Metz, France*	**We.1.I.2** 08:50 **Major Step Forward in Sandwich Inspection: PAUT with Wheel Probe to Check Full Integrity of CFRP-Honeycomb Control Panels on Aircrafts** *W. Bisle, Airbus Operations, Bremen, Germany*
09:10	**We.1.E.3** **NDE of Carbon Fiber Based Materials and Polymers by the Application of High Frequency Eddy-Current Techniques** *M. Schulze, Fraunhofer IKTS, Dresden, Germany*	**We.1.F.3** **Micro-emulsion Technologies for the Cost Optimization of your Fluorescent Penetrant Inspection Processes** *J. Pielmeier, Chemetall, Frankfurt a. Main, Germany*	**We.1.G.3** **Monitoring of Rail Track Using Guided Wave Ultrasound** *P. Loveday, CSIR, Pretoria, South Africa*	**We.1.H.3** **Modeling approaches for eddy current NDT** *T. Theodoulidis, University of Western Macedonia, Kozani, Greece*	**We.1.I.3** 09:10 **Laminographic Inspection of Large Carbon Fibre Composite Aircraft-Structures at Airbus** *O. Bullinger, Airbus Operations, Stade, Germany*
09:30	**We.1.E.4** **Design and Manufacture of Reference and Natural Defect Artefacts for the Evaluation of NDE Techniques for Fibre Reinforced Plastic (FRP) Composites in Energy Applications** *M. Gower, National Physical Lab., Teddington, UK*	**We.1.F.4** **Applications of a new NDT technique based on bacterial cells** *T. Santos, UNIDEMI, Caparica, Portugal*	**We.1.G.4** **Detection and evaluation of rail defects with non-destructive testing methods** *A. Dey, DB Systemtechnik, Brandenburg-Kirchmöser, Germany*	**We.1.H.4** **Numerical Simulation in ACFM Inducer Design** *W. Zheng, China University of Petroleum, Beijing, China*	**We.1.I.4** 09:30 **Recurrence Quantification Analysis for Non-Destructive Evaluation with an Application in Aeronautic Industry** *C. Brandt, Airbus Operations, Bremen, Germany*
09:50	**We.1.E.5** **New approaches to air-coupled ultrasound testing of composite lightweight materials** *R. Steinhausen, Forschungszentrum Ultraschall, Halle (Saale), Germany*	**We.1.F.5** **New Developed AC/DC-Pulse Technology for MT-Testing and Demagnetization of Steel Components** *P. Hirsch, HPT Hirsch Prüftechnik, Zweibrücken, Germany*	**We.1.G.5** **ACFM® arrays bringing new benefits for detecting surface breaking flaws** *D. Parramore, TSC Inspection Systems, Milton Keynes, UK*	**We.1.H.5** **Toward the experimental validation of a 3D numerical model for modelling the electromagnetic inspection of ferromagnetic materials** *A. Tamburrino, University of Cassino and Lazio Meridionale, Cassino, Italy*	**We.1.I.5** 09:50 **Development and application of On-line ultrasonic inspection transducers to be applied into composite Full Scale Structural Tests** *C. Miguel, Airbus Operations, Getafe, Spain*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	We.2.A *SEMI-FINISHED PRODUCTS – ULTRASONIC TESTING* *F. Schlawne, F. van den Berg*	**We.2.B** *IMAGING – RECONSTRUCTION 2* *W.J. Westerveld, U. Zscherpel*	**We.2.C** *EDDY CURRENT ARRAY* *M. Mackert, M. Missous*	**We.2.D** *RELIABILITY – STATISTICS* *S. Bond, C. Müller*
10:40	**We.2.A.1** **Assessment and Modelling of Through Thickness Ultrasonic Velocities in X70 Pipeline Steel** *J.B. Wiskel, University of Alberta, Edmonton, Canada*	**We.2.B.1** **Optimization of the Inspection Duration for SAFT** *H. Mooshofer, Siemens, München, Germany*	**We.2.C.1** **High Resolution Eddy Current Array (ECA) Application on Complex Shaped Cupper-Profiles to Improve the Inspection Efficiency** *L. Lindecke, CNS, Schwielowsee, Germany*	**We.2.D.1** **Productivity & Reliability Study of Non Destructive testing techniques for Inspection of structural welds in Construction industry** *S.K. Babu, WENS Quality Assurance (S) Pte, Singapore*
11:00	**We.2.A.2** **Porosity determination of carbon fiber reinforced plastics (CFRP) in aviation applications using ultrasound without a back wall echo** *J.H. Kurz, DB Systemtechnik, Brandenburg-Kirchmöser, Germany*	**We.2.B.2** **Three Dimensional Characterization of Defects by Ultrasonic Time-Of-Flight Diffraction (TOFD) Technique** *F. Honarvar, K. N. Toosi University of Technology, Teheran, Iran*	**We.2.C.2** **Surface and Subsurface Material Characterisation using Eddy Current Arrays** *G. Mook, Otto-von-Guericke-Universität Magdeburg, Germany*	**We.2.D.2** **From In-Process Monitoring to In-Process Control** *H.-U. Baron, MTU Aero Engines, München, Germany*
11:20	**We.2.A.3** **Measurement of Wall Thickness and External Diameter in Parallel as well as Calculation of Tube´s Geometrical Cross Section Values with a ROWA USIP|xx Phased Array Ultrasonic Testing Machine** *S. Schmitz, GE Sensing & Inspection Technologies, Hürth, Germany*	**We.2.B.3** **Recent Applications of SAFT Including Beam Field Simulation for Curved Components** *H. Rieder, Fraunhofer IZFP, Saarbrücken, Germany*	**We.2.C.3** **Application of Eddy Current Array Technology from the Point of View of a Service Provider** *B. Heutling, GSI – SLV, Hannover, Germany*	**We.2.D.3** **A New Detectability Criterion for Conventional Radiography Simulation** *C. Vienne, CEA, Gif-sur-Yvette, France*
11:40	**We.2.A.4** **Quantifying Drilling Induced Delaminations in Carbon-Fibre-Reinforced Epoxy Laminates Using a fast, Manual and Mobile Ultrasonic-Based Procedure as Compared to Low-Magnification Microscopy** *S. Schuhmacher, Hochschule Aalen, Germany*	**We.2.B.4** **Requirements For a Small Size Ultrasonic Imaging System for Inspection of Concrete Elements** *K. Mayer, University Kassel, Germany*	**We.2.C.4** **Eddy Current Probes Based on Magnetoresistive Array Sensors as Receivers** *N. Sergeeva-Chollet, CEA, Gif-sur-Yvette, France*	**We.2.D.4** **'Out' with the Old and 'in' with the New – What is the Implication of Technical Advances within NDT Industry? Is There Still Place for the 'Old School' approach?** *E. Motukisi, SAIW, Johannesburg, South Africa*
12:00	**We.2.A.5** **Improvement of On-line Ultrasonic Detection for Internal Flaws in Steel Strip using Adaptive Signal Processing** *T. Ozeki, JFE Steel, Kawasaki, Japan*	**We.2.B.5** **A transmission-tomographic imaging setup combining elastic and electromagnetic wave functionality** *M. Schickert, MFPA, Weimar, Germany*	**We.2.C.5** **Advances in Carbon Steel Weld Inspection using Tangential Eddy Current Array** *A. Raude, Eddyfi, Saint-Vulbas, France*	**We.2.D.5** **Comparison of human visibility on film radiography and various detectability parameters computed on simulated radiographs – a statistical study** *V. Kaftandjian, INSA Lyon, Villeurbanne, France*
12:20	Lunch			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	We.2.E *ENERGY NUCLEAR 1* *K. Dressler, S. Dugan*	**We.2.F** *LEAK TESTING* *W. Große Bley, R. Konwitschny*	**We.2.G** *RAILWAY ROLLING STOCK – AXLES INSPECTION* *W.A.K. Deutsch, P. Loveday*	**We.2.H** *MODELLING AND DATA PROCESSING – ELECTROMAGNETIC INSPECTION* *T. Theodoulidis, G.Y. Tian*	**We.2.I** *COMPOSITE MATERIALS – THERMOGRAPHY* *M. Goldammer, A. Mandelis*
10:40	**We.2.E.1** **Selection Matrix for Non-destructive Testing of NPP Concrete Structures** *F. Al-Neshawy, Aalto University, Espoo, Finland*	**We.2.F.1** **Quantification of Internal Air Leakage in Ball Valve using Acoustic Emission Signals** *C. Xu, China University of Petroleum, Qingdao, China*	**We.2.G.1** **New Approach for a More Detailed Visualisation of Ultrasonic Testing Data of Railway Hollow Axles** *U. Völz, arXes-tolina, Dresden, Germany*	**We.2.H.1** **A Modeling Study of the SLOFEC Eddy Current System** *F. Foucher, EXTENDE, Massy, France*	**We.2.I.1** 10:40 **Online-Thermography: an efficient tool for optimization of laser ablation and repair of CFRP structures** *P. Menner, edevis, Stuttgart, Germany*
11:00	**We.2.E.2** **Use of Guided Wave Inspections to Monitor the Integrity of Nuclear Power Station Boilers** *P. Mudge, Plant Integrity, Cambridge, UK*	**We.2.F.2** **Leak Test of Encapsulated Systems with the Test Medium Compressed Air** *J. Lapsien, CETA Testsysteme, Hilden, Germany*	**We.2.G.2** **Research on Non-contacted Immersion Ultrasonic Testing Method for Hollow Axles** *Y. Zhang, Southwest Jiaotong University, Chengdu, China*	**We.2.H.2** **Simulation of Electromagnetic Inspection Techniques Using FEM Analysis** *Y. Gabi, Fraunhofer IZFP, Saarbrücken, Germany*	**We.2.I.2** 11:00 **Ultrasonic IR Thermography Detection of Defects in Multi-layered Aramide Composites** *W. Swiderski, Military Institute of Armament Technology, Zielonka, Poland*
11:20	**We.2.E.3** **Development of a robotic nozzle inspection with a flexible transducer array** *B. Dobigny, EDF, Saint-Denis, France*	**We.2.F.3** **Advantages of Carrier Gas Leak Detection using Novel Helium or Hydrogen Leak Detectors with Specific Sensor Types** *K. Herrmann, INFICON, Köln, Germany*	**We.2.G.3** **Study of a train axle inspection system for automatically detecting defects in hollow axles** *I. Gauna, Tecnitestest ingenieros, Madrid, Spain*	**We.2.H.3** **Modelling the IMPOC Response for Different Steel Strips** *C. Reboud, CEA, Gif-sur-Yvette, France*	**We.2.I.3** 11:20 **Experimental Investigation of Impact Damaging of Carbon Fibre Reinforced Composites** *C. Meola, University of Naples Federico II, Napoli, Italy*
11:40	**We.2.E.4** **Inspection of Inaccessible Areas: The Heysham Case** *M. Bolander, Westinghouse Electric Germany, Mannheim, Germany*	**We.2.F.4** **A New Leak Detection System with Innovative Sensor Technology for Integral Test of Hermetically Sealed Objects in Pharmaceutical Applications** *P. Bunod, adixen Vacuum Products – A Pfeiffer Vacuum Company, Annecy, France*	**We.2.G.4** **Investigations to Introduce the Probability of Detection Method for Ultrasonic Inspection of Hollow Axles at Deutsche Bahn** *A. Zoëga, DB Systemtechnik, Brandenburg-Kirchmöser, Germany*	**We.2.H.4** **Magnetic NDT for Steel Microstructure Characterisation – Modelling the Effect of Second Phase Distribution on Magnetic Relative Permeabilty** *L. Zhou, University of Warwick, Coventry, UK*	**We.2.I.4** 11:40 **Characterisation of Artificial and Natural Defects in Fibre Reinforced Plastics Designed for Energy Applications Using Active Thermography** *C. Maierhofer, BAM, Berlin, Germany*
12:00	**We.2.E.5** **Fatigue Damage Evaluation of Casting Austenitic Stainless Steel Based on EBSD Method** *Z. Luo, Dalian University of Technology, Dalian, China*	**We.2.F.5** **Acoustic methods for leak detection and tightness testing** *P. Holstein, SONOTEC, Halle (Saale), Germany*	**We.2.G.5** **Mobile mechanized ultrasonic testing on wheel set axles with longitudinal drill** *A. Weber, AREVA, Erlangen, Germany*	**We.2.H.5** **Numerical model of a real defect in Austenite Stainless Steel Heat Exchangers Tube Inspection** *J. Rebello, Federal University of Rio de Janeiro, Brazil*	**We.2.I.5** 12:00 **New Approaches in Nondestructive Characterisation of the Interface in Metal – CFRP Hybrid Structures** *H.-G. Herrmann, Saarland University/Fraunhofer IZFP, Saarbrücken, Germany*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	We.3.A *AVIATION – ULTRASONIC TESTING* *J. Bamberg, C. Miguel*	**We.3.B** *SYNCHROTRON APPLICATIONS* *M. Maisl, B.R. Müller*	**We.3.C** *QUALIFICATION AND CERTIFICATION – EDUCATION* *R. Alijah, M. Johannes*	**We.3.D** *RELIABILITY – PERFORMANCE DEMONSTRATION* *D. Kanzler, B. McGrath*
13:30	**We.3.A.1** **Ultrasonic-Endoscopic NDT solution inside a "ready to fly" helicopter gearbox. Practical example on H225 Helicopters.** *S. Bernier, Airbus Helicopters Aéroport International, Marignane, France*	**We.3.B.1** **Dark-Field Imaging on Micro- and Macro Focus Sources in Comparison with Normal Micro-CT for Building Materials** *R. Kaufmann, EMPA, Dübendorf, Switzerland*	**We.3.C.1** **New Concepts of Academic Education in the Field of NDT at a German Technical University** *C.U. Große, TU München, Germany*	**We.3.D.1** **Ultrasonic Response on Artificially Produced Fatigue Cracks in AISI 321 Austenitic Stainless Steel Weld** *A. Koskinen, VTT, Espoo, Finland*
13:50	**We.3.A.2** **High resolution crack detection on turbine blade roots by the use of eddy current and ultrasonic Rayleigh waves** *E. Rau, MTU Aero Engines, München, Germany*	**We.3.B.2** **Progress Survey of X-Ray Refraction Imaging Techniques** *A. Kupsch, BAM, Berlin, Germany*	**We.3.C.2** **Public organizations and communities of knowledge sources** *Z. Klyuev, RII MSIA SPECTRUM, Moscow, Russia*	**We.3.D.2** **NDE Research of Nuclear Power Plant Primary Circuit Components and Concrete Infrastructure in Finland** *T. Jäppinen, VTT, Espoo, Finland*
14:10	**We.3.A.3** **Non-Destructive Inspection of the Composite Laminated Structures using Ultrasonic Feature Guided Waves** *Z. Fan, Nanyang Technological University, Singapore*	**We.3.B.3** **Synchrotron multi-scale and time-resolved microtomography: a powerful imaging technique to study microstructures** *E. Boller, ESRF, Grenoble, France*	**We.3.C.3** **Training and Education Requirements for Occupational Radiation Protection in Industrial Radiography in Germany** *A. Steege, DGZfP, Berlin, Germany*	**We.3.D.3** **Method for Acoustic Characterization of Materials in Temperature** *C. Cadot, AREVA / INTERCONTROLE, Chalon Sur Saone, France*
14:30	**We.3.A.4** **New Highly Productive Phased Array Ultrasonic Testing Machine for Aluminium Plates for Aircraft Applications** *C. Henkel, AMAG rolling, Ranshofen, Austria*	**We.3.B.4** **Synchrotron radiation micro-tomography (SR-µCT): a unique complementary tool for NDT** *O. Guiraud, NOVITOM, Grenoble, France*	**We.3.C.4** **International Academic Education in NDT at Master Level** *C. Boller, Saarland University, Saarbrücken, Germany*	**We.3.D.4** **A Round Robin Test on Flash Thermography** *C. Maierhofer, BAM, Berlin, Germany*
14:50	**We.3.A.5** **High Contrast Radioscopy System for X-Ray High Energy Control** *E. Tosti, AVIO, Colleferro, Italy*		**We.3.C.5** **Malaysia National Occupational Skills Standard (NOSS) as Basis in Developing The Non-Destructive Testing (NDT) Instructional Training Materials** *S. Hussein, Ministry of Human Resources, Putrajaya, Malaysia*	**We.3.D.5** **X-Ray Tomographic In-Service-Testing of Circumferential Pipe Welds – The European Project TomoWELD –** *U. Ewert, BAM, Berlin, Germany*
15:10	Break			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	We.3.E *ENERGY NUCLEAR 2* *M. Bolander, B. Dobigny*	**We.3.F** *MATERIALS CHARACTERISATION – CERAMICS* *U. Netzelmann, T. Ullmann*	**We.3.G** *MODELLING AND DATA PROCESSING – DIGITAL RADIOGRAPHY* *T. Fuchs, D. Neumann*	**We.3.H** *MODELLING AND DATA PROCESSING – SIMULATIONS 1* *C. Poidevin, M.G.R. Sause*	**We.3.I** *MATERIALS CHARACTERISATION – COMPOSITES AND POLYMERS* *H. Kosukegawa, V. Trappe*
13:30	**We.3.E.1** **Nondestructive Characterization Techniques for Assuring the Integrity of Fuel Pins for Fast Reactors** *J. Panakkal, Raja Ramanna Fellow, New Mumbai, India*	**We.3.F.1** **Influence of Chemical Compositions and Thermal Treatments on the Structure and Mechanical Properties of Zirconia Based Thermal Coatings** *M.C. Ruch, Comisión Nacional de Energia Atomica, San Martin, Argentina*	**We.3.G.1** **First Validation of CIVA RT Module with a Linear Accelerator in a Nuclear Context** *C. Vienne, CEA, Gif-sur-Yvette, France*	**We.3.H.1** **Comparison of theoretical and experimental characteristics of the acoustic field phased array probe** *L. Voronkova, ROSATOM, Moscow, Russia*	**We.3.I.1** 13:30 **Terahertz time domain spectroscopy for the non-destructive testing of plastic parts** *S. Kremling, SKZ – Das Kunststoff-Zentrum, Würzburg, Germany*
13:50	**We.3.E.2** **Model of Eddy Current Based Pressure Tube to Calandria Tube Gap Measurement** *T. Krause, Royal Military College of Canada, Kingston, Canada*	**We.3.F.2** **Structural Integrity of Coatings of Zirconia Doped with Ceria on Stainless Steels** *M.C. Ruch, Comisión Nacional de Energia Atomica, San Martin, Argentina*	**We.3.G.2** **RT Modeling for NDT Recent and Future Developments in the CIVA RT/CT Module** *R. Fernandez, EXTENDE, Massy, France*	**We.3.H.2** **Modeling and Optimization of Transducers Implementing Technology Magnetic Flux Leakage (MFL)** *V. Syasko, Mining University, St. Petersburg, Russia*	**We.3.I.2** 13:50 **Optimisation of Ultrasonic Inspection for 3D Fibre-Tow Mapping in Composite Structures** *M. Mienczakowski, University of Bristol, UK*
14:10	**We.3.E.3** **Evaluation of Pipe Wall Thinning from Outside of Piping by Excitation Control Eddy Current Testing** *T. Uchimoto, Tohoku University, Sendai, Japan*	**We.3.F.3** **Testing of Ceramics by Ultrasound Microscopy and Vibration Analysis** *M. Barth, Fraunhofer IKTS, Dresden, Germany*	**We.3.G.3** **Modeling computed radiography with imaging plates** *A. Schumm, EDF R&D, Moret sur Loing, France*	**We.3.H.3** **Tailored Ultrasound Fields for Application in Ultrasonic testing** *S. Falter, GE Sensing & Inspection Technologies, Hürth, Germany*	**We.3.I.3** 14:10 **Innovative Technologies as Enabler for Sorting of Black Plastics** *D. Nüßler, Fraunhofer FHR, Wachtberg, Germany*
14:30	**We.3.E.4** **Detection of Corrosion in Triga Mark II Fuel Cladding Using Pulsed Eddy Current** *N.A. Ahmad Latif, National University of Malaysia Bangi, Kajang, Malaysia*	**We.3.F.4** **3D-SAR-Imaging and Thickness Determination of Zirconia Based Coatings on Non-Planar Metal Substrates in the Lower Terahertz Region** *D. Oppelt, FAU Erlangen-Nürnberg, Erlangen, Germany*	**We.3.G.4** **Quantitative Simulation of Back Scatter X-ray Imaging and Comparison to Experiments** *G.-R. Jaenisch, BAM, Berlin, Germany*	**We.3.H.4** **New Possibilities of Simulation Tools for NDT and Applications** *F. Foucher, EXTENDE, Massy, France*	**We.3.I.4** 14:30 **THz-ToF techniques for the detection of inherent discontinuities in dielectric materials based on a SAFT- and an Optical Layer reconstruction algorithm** *H. Spranger, BAM, Berlin, Germany*
14:50	**We.3.E.5** **Using AE Technique to Monitor the Fracture Behavior in Shaking Table Tests of a Scale-down Mockup of Nuclear RC Structure** *K.-C. Pei, Institute of Nuclear Energy Research, Taoyuan City, Taiwan*	**We.3.F.5** **Experimental Investigation on the Thermal Conductivity and Ultrasonic velocity of Propylene Glycol based TiO2 Nanofluids** *V. Bhalla, Amity University Uttar Pradesh, Noida, India*	**We.3.G.5** **NOV-XSIM: A new fast simulation tool for X-ray computed tomography testing** *B. Hesse, NOVITOM, Grenoble, France*	**We.3.H.5** **Research on Ultrasonic Attenuation of CFRP Based on 2D Real Morphology Void Model** *L. Lin, Dalian University of Technology, Dalian, China*	**We.3.I.5** 14:50 **Evaluation of a Testpiece for Porosity in Carbon Fibre Reinforced Polymers** *J. Kastner, FH Oberösterreich, Wels, Austria*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	We.4.A *CIVIL ENGINEERING – ULTRASONIC TESTING* *K. Mayer, C. Sodeikat*	**We.4.B** *COMPUTED TOMOGRAPHY – SPECIFIC APPLICATIONS* *M. Maisl, Y. Nagai*	**We.4.C** *QUALIFICATION AND CERTIFICATION 1* *N. Mahmutyazicioglu, A. Mullin*	**We.4.D** *ENERGY GENERATION (REGENERATIVE)* *F. Ahrens, G.Y. Tian*
15:40	**We.4.A.1** **Non-destructive identification of interlayer bond between concrete substrate and repairing coating with variable thickness using ANN** *L. Sadowski, Wroclaw University of Technology, Wroclaw, Poland*	**We.4.B.1** **Advanced Computed Laminography using a Priori Information** *C. Schorr, Fraunhofer IZFP, Saarbrücken, Germany*	**We.4.C.1** **Development of a Training and Practice Programme for Acessing to the Certification in Accordance with EN ISO 9712 in Blended Learning** *R. Rodríguez, AEND, Madrid, Spain*	**We.4.D.1** **Using High-Frequency-Impulse-Measurement (HFIM) for Detection of Lubrication driven WEC-formation** *S. Barteldes, QASS, Wetter, Germany*
16:00	**We.4.A.2** **Development of Phased Array Ultrasonic Testing Application for Detection and Sizing of Orthotropic Steel Bridge Cracking** *N. Yagi, Mitsubishi Hitachi Power Systems Insp. Technol., Yokohama Kanagawa, Japan*	**We.4.B.2** **Potentials of Full-Vehicle CT Scans Within the Automotive Industry** *G.A. Ciliberti, BMW, München, Germany*	**We.4.C.2** **Industrial Demand Versus the NDT Technicians Integrity** *A. Chiswo, SAIW, Johannesburg, South Africa*	**We.4.D.2** **Radar-based Structural Health Monitoring of Wind Turbine Blades** *J. Moll, Goethe Universität, Frankfurt am Main, Germany*
16:20	**We.4.A.3** **Study on the Long Distance Non-Contact Acoustic Inspection Method using a Strong Ultrasonic Sound Source** *T. Sugimoto, Toin University of Yokohama, Japan*	**We.4.B.3** **Assessment of Measurement Uncertainty due to Geometrical Misalignments of a CT System** *M. Ferrucci, National Physical Lab., Teddington, UK*	**We.4.C.3** **Implementation of NDT Performance Evaluation Methodology in the Analysis System INDEVA** *D. Algernon, SVTI, Wallisellen, Switzerland*	**We.4.D.3** **NDT-based Assessment of Shrinkages and Dross in Heavy Nodular Cast Iron Components of Wind Energy Turbines** *J.H. Kurz, DB Systemtechnik, Brandenburg-Kirchmöser, Germany*
16:40	**We.4.A.4** **Advances in ultrasonic testing – Research into the application of dry point contact transducers** *D. Corbett, Proceq, Schwerzenbach, Switzerland*	**We.4.B.4** **The Applications of Industrial CT NDT Technology in Geological Research** *Y. Xiao, Tsinghua University, Beijing, China*	**We.4.C.4** **ANDE-1 An ASME Nondestructive Examination and Quality Control Qualification and Certification National Standard** *M.L. Turnbow, ASME, Chattanooga, USA*	**We.4.D.4** **Thermographic Rotor Blade Inspection from Larger Distances – a Promising Tool for the Maintenance of Wind Turbines** *R. Krankenhagen, BAM, Berlin, Germany*
17:00	**We.4.A.5** **Rock Bolt Inspection by Means of RBT Instrument** *T. Stepinski, AGH University, Cracow, Poland*	**We.4.B.5** **Methodology for the evaluation of CT image quality in dimensional metrology** *A. Krämer, Karlsruhe Inst. of Technology, Karlsruhe, Germany*	**We.4.C.5** **ANDE-1 Personnel PQ&C Session A new ASME NDE/QC Personnel Qualification and Certification Standard** *M.L. Turnbow, ASME, Chattanooga, USA*	**We.4.D.5** **Characterization and Optimization of Ultrasonic Tests for Inspection of Fiber-Reinforced Plastic Composites in Energy Related Applications** *S.M.H. Hosseini, BAM, Berlin, Germany*

20:00 **Gala Dinner at Allianz Arena**

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	We.4.E *NUCLEAR STORAGE CASKS INSPECTION* *A. Erhard, E. Martin*	**We.4.F** *SEMI-FINISHED PRODUCTS – NON-CONTACT INSPECTION* *W. Hillger, R. Kazys*	**We.4.G** *COMPOSITE MATERIALS – VARIOUS METHODS* *D.G. Aggelis, C.U. Große*	**We.4.H** *MODELLING AND DATA PROCESSING – SIMULATIONS AND APPLICATIONS* *M. Lowe, K. Nakahata*	**We.4.I** *MATERIALS CHARACTERISATION – COMPOSITES* *G. Bruno, R. Steinhausen*
15:40	**We.4.E.1** **Thickness Measurement of Nickel Coatings on Walls of Nuclear Waste Storage Tanks** *V. Syasko, Constanta corp, St. Petersburg, Russia*	**We.4.F.1** **Development of Concave and Convex Roll Defect Inspection Technology for Steel Sheets by Magnetic Flux Leakage Testing Method** *Y. Matsufuji, JFE Steel Corporation, Fukuyama, Hiroshima, Japan*	**We.4.G.1** **Non-Destructive Testing of Plastics and Composites in the Chemical Processing Industry** *K. Jacobson, Swerea KIMAB, Kista, Sweden*	**We.4.H.1** **Real-Time methods for Eddy Current Tomography** *A. Tamburrino, University of Cassino and Lazio Meridionale, Cassino, Italy*	**We.4.I.1** 15:40 **Solid Woven Carbon Fiber Reinforced Plastic Characterization using Infrared Inspection Technologies** *D. Moore, Sandia National Laboratories, Albuquerque, USA*
16:00	**We.4.E.2** **NDE of the Spent Nuclear Fuel Disposal Canisters** *A. Koskinen, VTT, Espoo, Finland*	**We.4.F.2** **Thermographic Crack Detection in Hot Steel Surfaces** *P. Myrach, BAM, Berlin, Germany*	**We.4.G.2** **EU-project EVITA: Non-destructive inspection and testing of primary aeronautical composite structures using phase contrast X-ray radiography** *V. Revol, CSEM, Alpnach Dorf, Switzerland*	**We.4.H.2** **Guided Wave Monitoring of Pipes** *T.K. Vogt, Guided Ultrasonics, Brentford, UK*	**We.4.I.2** 16:00 **Fiber Waviness Detection by Electromagnetic Testing in Carbon Fiber Reinforced Plastics** *A. Tsuda, IHI Corporation, Yokohama, Japan*
16:20	**We.4.E.3** **Automated Ultrasonic Testing of Large Casted Casks using Phased Array Techniques** *T. Schmitte, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**We.4.F.3** **Investigations for Determining Surface Crack Depth with Inductive Thermography** *B. Oswald-Tranta, Montanuniversität Leoben, Austria*	**We.4.G.3** **Multi-Layered Composite Testing using Low Frequency Ultrasonic Pulse-Compression Techniques** *M.N. Mohamed, Warwick University, UK*	**We.4.H.3** **Simulation of NDT Inspection in 3D Elastic Waveguide Involving Arbitrary Defect** *K. Jezzine, CEA-LIST, Gif-sur-Yvette, France*	**We.4.I.3** 16:20 **Characterization of Multiphase Metal Matrix Composites by Means of CT and Neutron Diffraction** *S. Cabeza, BAM, Berlin, Germany*
16:40	**We.4.E.4** **Safe for 1 Million Years – NDT Matters!** *U. Ronneteg, SKB, Oskarshamn, Sweden*	**We.4.F.4** **Detection of Filament Misalignment in Carbon Fibre Production Using a Stereovision Line Scan Camera System** *A. Margraf, Fraunhofer-Institut für Chemische Technologie ICT, Augsburg, Germany*	**We.4.G.4** **Inspection of Glass Fiber-Reinforced Composite Materials – Comparison of Terahertz and Established NDT Techniques** *J. Jonuscheit, Fraunhofer IPM, Kaiserslautern, Germany*	**We.4.H.4** **Nonlinear Lamb Wave Mixing Technique for Micro-Crack Detection in Plates** *J. Jiao, Beijing University of Technology, Beijing, China*	**We.4.I.4** 16:40 **Infinite Life of CFRP Evaluated Nondestructively with X-Ray-Refraction Topography In-Situ Mechanical Loading** *V. Trappe, BAM, Berlin, Germany*
17:00	**We.4.E.5** **Reliability Analysis of the Phased-Array Ultrasonic System used for the Inspection of Friction Stir Welds of Copper Canisters** *M. Pavlovic, BAM, Berlin, Germany*	**We.4.F.5** **Non-Contact Inline Monitoring of Thermoplastic CFRP Tape Quality Using Air-Coupled Ultrasound** *P. Fey, Universität Stuttgart, Germany*	**We.4.G.5** **Definition of requirements for reference experiments to determine and evaluate various damage mechanisms in fibre composites by acoustic emission** *B. Frankenstein, Fraunhofer IKTS, Dresden, Germany*	**We.4.H.5** **Guided Wave Testing of Pipeline and Plate Structure** *S. Kim, Guided Wave Analysis, San Antonio, USA*	**We.4.I.5** 17:00 **Inverting X-ray CT data to determine material properties of carbon fibre reinforced composites** *C. Fraij, University of Bristol, UK*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Th.1.A *ENERGY GENERATION (NUCLEAR) – PRIMARY CIRCUIT* *E. Martin, B. Neundorf*	**Th.1.B** *PROCESS MONITORING 1* *H.-U. Baron*	**Th.1.C** *QUALIFICATION AND CERTIFICATION 2* *P. Merck, M.L. Turnbow*	**Th.1.D** *CORROSION DETECTION 1* *O. Roy, P. Tscheliesnig*
08:30	**Th.1.A.1** **UT TOFD Characterization of Steam Generator Divider Plates – Dealing with Un-favorable Component Configurations – Engineering and ISI Feedback** *Y. Forestier, EDF, Saint-Denis, France*	**Th.1.B.1** **In-Process Control of Selective Laser Melting by Quantitative Optical Tomography** *J. Bamberg, MTU Aero Engines, München, Germany*	**Th.1.C.1** **ICNDT WG1 on qualification and certification – efforts on global harmonization of the process of personnel certification** *A. Mullin, RTC Testing and Diagnostics, Moscow, Russia*	**Th.1.D.1** **Non-destructive Evaluation of Stress Corrosion Cracking under Micro Cell by Acoustic Emission and Video Microscope** *M. Shiwa, National Institute for Materials Science, Tsukuba, Japan*
09:00	**Th.1.A.2** **Reactor Vessel Inspections in Korean Nuclear Plants** *E. Doh, KEPCO Plant Service and Engineering, Busan, South Korea*	**Th.1.B.2** **The Use of Acoustic Emission for Process Monitoring in Steel Processing Lines** *A. Nilsson, Swerea MEFOS, Luleå, Sweden*	**Th.1.C.2** **How to Deal with the ISO 9712 in a Globally Acting Company?** *S. Frank, Siemens, Mülheim a. d. Ruhr, Germany*	**Th.1.D.2** **New Eddy Current Inspection Technology for Detection and Differentiation of Stress Corrosion Cracking (SCC) at and underneath Alloy 625 Cladding at Roughest Surfaces and the Measurement of the Thickness of Welded Claddings** *I. Becker, ec-works, Winsen (Aller), Germany*
09:20	**Th.1.A.3** **Higher Harmonic Imaging of Crack Surfaces of SCC in Dissimilar Metal Weld with Ni-based Alloy and Fatigue Crack in Cast Stainless Steel** *H. Ishida, Institute of Nuclear Safety System, Fukui, Japan*	**Th.1.B.3** **AkuProLas: Acoustic Inline Process Monitoring for Laser Welding Applications** *M. Bastuck, Fraunhofer IZFP, Saarbrücken, Germany*	**Th.1.C.3** **A proposal for a structured approach for the industrial experience component of the qualification for NDT personnel prior to certification – the South African experience** *M. Johannes, CSIR, Pretoria, South Africa*	**Th.1.D.3** **Detecting internal hot corrosion of in-service turbine blades using neutron tomography with Gd tagging** *C.M. Sim, Korea Atomic Energy Research Institute, Daejeon, South Korea*
09:40	**Th.1.A.4** **Pulsed Eddy Current Technology for Steam Generator Tube Support Structure Inspection** *T. Krause, Royal Military College of Canada, Kingston, Canada*	**Th.1.B.4** **Non-Destructive Online-Testing Method for Friction Stir Welding Using Infrared Thermography** *I. Kryukov, Universität Kassel, Germany*	**Th.1.C.4** **Responsibilities of the certificate holder and the employer - In light of ISO 9712:2012** *N. Mahmutyazicioglu, SECTOR Cert, Köln, Germany*	**Th.1.D.4** **True Advancements for Longitudinal Weld Pipe Inspection in PA** *J. Turcotte, Sonatest, Quebec City, Canada*
10:00	Break			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Th.1.E *STRUCTURAL HEALTH MONITORING – GUIDED WAVES* *F. Niese, T.K. Vogt*	**Th.1.F** *METAL MAGNETIC MEMORY TECHNIQUE 1* *A. Dubov, M. Kreutzbruck*	**Th.1.G** *CIVIL ENGINEERING – CONCRETE STRUCTURES* *D. Algernon, A. Taffe*	**Th.1.H** *SEMI-FINISHED PRODUCTS – EDDY CURRENT* *G. Dobmann, M.W. Seidel*	**Th.1.I** *MATERIALS CHARACTERISATION – METALS 1* *A. Peyton, M.C. Ruch*
08:30	**Th.1.E.1** **Practical Ultrasonic Damage Monitoring on Pipelines Using Component Analysis Methods** *P. Cawley, Imperial College, London, UK*	**Th.1.F.1** **Metal Magnetic Memory Technique – Prospects and Restrictions** *R. Stegemann, BAM, Berlin, Germany*	**Th.1.G.1** **Rapid and Comprehensive Detection and Characterization Using a Fully Autonomous Robotic NDE Platform RABIT** *N. Gucunski, Rutgers University, Piscataway, USA*	**Th.1.H.1** **Development of an Eddy Current based Inspection Technique for the Detection of Hard Spots on Heavy Plates** *G. Schneibel, Rohmann, Frankenthal, Germany*	**Th.1.I.1** 08:30 **Recent Advances in HH XRF based Alloy PMI/ Material Testing** *K. Smith, Olympus Scientific Solutions Americas, Waltham, USA*
09:00	**Th.1.E.2** **Feasibility of Passive SHM for Corrosion Detection by Guided Wave Tomography** *P. Calmon, CEA, Gif-sur-Yvette, France*	**Th.1.F.2** **Certification Scheme Based on the ISO 9712:2012 for NDT Personnel Certification by the Metal Magnetic Memory Method (ISO 24497:2007)** *S. Kolokolnikov, Energodiagnostika, Reutov, Moscow region, Russia*	**Th.1.G.2** **Application Limits of NDT Methods for Reinforced and Prestressed Concrete Members in Practice** *C. Sodeikat, Ingenieurbüro Schießl Gehlen Sodeikat, München, Germany*	**Th.1.H.2** **Real-time Filter Technique for Effective Denoising of High Frequency EC Signals** *T. Schmitte, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**Th.1.I.2** 09:00 **Only the Combination of Different NDT Methods of Material Characterization is the Key to Success** *L. Spieß, TU Ilmenau, Germany*
09:20	**Th.1.E.3** **Offshore foundation monitoring by guided waves – challenges and perspectives** *B. Weihnacht, Fraunhofer IKTS, Dresden, Germany*	**Th.1.F.3** **Magnetic Impedance based Spectral Tomography for Detection of Structural Inhomogeneity** *P. Trampus, College of Dunaujvaros, Hungary*	**Th.1.G.3** **Development of an Efficient Air-Coupled Impact-Echo Scanner for Concrete Pavements** *R. Groschup, TU München, Germany*	**Th.1.H.3** **Industrial Eddy Current Array Testing Solution for Cylindrical Products** *M. Mavadat, Olympus Scientific Solutions Americas, Quebec City, Canada*	**Th.1.I.3** 09:20 **Experimental Measurement of Nano-Deformation and in Situ Strain using Nanoindentation, Picoindentation and Digital Image Correlation** *C.-C. Ma, National Taiwan University, Taipei, Taiwan*
09:40	**Th.1.E.4** **Non-Invasive Monitoring Strategies for Engineering Structures using Guided Waves** *P. Jackson, Plant Integrity, Cambridge, UK*	**Th.1.F.4** **Research on Magnetic Memory Effect of the Ferromagnetic Materials during the Friction Process** *K. Zhao, China University of Petroleum, Beijing, China*	**Th.1.G.4** **Polarized ultrasonic shear waves to estimate stresses in structural concrete** *T. Schumacher, Portland State University, USA*	**Th.1.H.4** **Eddy Current Nondestructive Testing of Large Diameter Pipes Through Thick Protective Coatings** *A. Efimov, JSC RII „Spectrum“, Moscow, Russia*	**Th.1.I.4** 09:40 **Combined portable hardness testing solution to increase the efficiency of inspection & quality control processes** *A. Akhlaghi, Proceq, Schwerzenbach, Switzerland*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Th.2.A *ENERGY GENERATION* *G. Dobmann, R. Martínez-Oña López*	**Th.2.B** *PROCESS MONITORING 2* *A. Nilsson, B. Wolter*	**Th.2.C** *QUALIFICATION AND CERTIFICATION 3* *G. Batov, P. Milligan*	**Th.2.D** *CORROSION DETECTION 2* *A. Erhard, M.I. Haith*
10:30	**Th.2.A.1** **A New Nondestructive Testing Method for the Blade Roots of In-service Steam Turbines Based on Ultrasonic Distortion Wave** *L. Zhu, Xi'an Thermal Power Research Institute, China*	**Th.2.B.1** **High Speed Cone Beam CT for Production Process Control using Innovative Scatter Correcting Technology** *O. Brunke, GE Sensing & Inspection Technologies, Wunstorf, Germany*	**Th.2.C.1** **Training For Phased Array Ultrasonic Testing – An Innovative Approach** *N. Harrap, TWI, Cambridge, UK*	**Th.2.D.1** **Measurement of Corrosion Wall Loss at Contact Supports** *T. Pialucha, Guided Ultrasonics, Brentford, UK*
10:50	**Th.2.A.2** **Phased Array Ultrasonic Inspection of Nozzles** *C. Nageswaran, TWI, Cambridge, UK*	**Th.2.B.2** **Applications of Active Thermography for Full Inspection in Parts Manufacture** *D. Hou, China Jiliang University, Hangzhou, China*	**Th.2.C.2** **Need for certification of personnel on Phased Array, TOFD and Digital Radiography** *V. Sokovnin, RTC Testing and Diagnostics, Moscow, Russia*	**Th.2.D.2** **Corrosion detection under pipe supports using EMAT Medium Range Guided Waves** *C. Boyero, Innerspec Technologies Europe, Alcala de Henares, Spain*
11:10	**Th.2.A.3** **Assessment of Microstructural Changes in Grade 91 Power Station Steel through Magnetic Measurements** *J. Wilson, University of Manchester, UK*	**Th.2.B.3** **Design, Calibration and Validation of 24 GHz Resonators for Epoxy Resin Cure Monitoring Systems in the Fibre-Reinforced Plastics Fabrication** *J. Groh, FAU Erlangen-Nürnberg, Erlangen, Germany*	**Th.2.C.3** **Challenges on Harmonization of National Approaches to Administration of Practical Examination** *S.K. Babu, Non-Destructive Testing, Singapore, Singapore*	**Th.2.D.3** **High-Resolution Corrosion Monitoring for Reliable Assessment of Infrastructure** *A. Lamarre, Olympus Scientific Solutions Americas, Quebec City, Canada*
11:30	**Th.2.A.4** **Ultrasonic Inspection of Nickel Alloys and Nickel Alloy Welds for High-temperature Applications in Modern Coal-fired Power Plants** *S. Wagner, MPA Universität Stuttgart, Germany*	**Th.2.B.4** **Application of Infrared Thermography technique for the prediction of weld quality parameters during the Cold Metal Transfer (CMT) joining of aluminium to galvanized steel** *R.T. Kidangan, Indian Institute of Technology Madras, Chennai, India*	**Th.2.C.4** **Harmonized NDT Training, Qualification, Certification and Designation as implemented within the South African NDT Industry** *H. Jansen, SAIW, Johannesburg, South Africa*	**Th.2.D.4** **Pulsed Eddy Current: New Developments for Corrosion Under Insulation Examinations** *M. Grenier, Eddyfi, Québec, Canada*
11:50	**Th.2.A.5** **Evolution of the Ultrasonic Inspection over the Past Decades on the Example of Heavy Rotor Forgings** *J. Vrana, Siemens, München, Germany*	**Th.2.B.5** **Early inspection of drill string fatigue damage based on metal magnetic memory method** *Z. Hu, China University of Petroleum, Beijing, China*	**Th.2.C.5** **Qualification in NDT – Necessary Evil or Sensible Decision?** *R. Alijah, Kiwa International Cert, Hamburg, Germany*	**Th.2.D.5** **HOIS JIP experience of inspection of un-insulated external corrosion to determine the remaining wall thickness – a challenging NDT requirement** *S.F. Burch, ESR Technology, Abingdon, UK*
12:10	Lunch			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Th.2.E *STRUCTURAL HEALTH MONITORING 1* *C. Boller, J. Corcoran*	**Th.2.F** *METAL MAGNETIC MEMORY TECHNIQUE 2* *R. Stegemann, P. Trampus*	**Th.2.G** *CIVIL ENGINEERING – MATERIALS ASSESSMENT* *N. Gucunski, T. Schumacher*	**Th.2.H** *MODELLING AND DATA PROCESSING – SIMULATIONS AND ALGORITHMS* *S. Falter, M. Spies*	**Th.2.I** *MATERIALS CHARACTERISATION – METALS 2* *A. Martinez-de-Guerenu, L. Spieß*
10:30	**Th.2.E.1** **On- and Offline Ultrasonic Inspection of Additively Manufactured Components** *H. Rieder, Fraunhofer IZFP, Saarbrücken, Germany*	**Th.2.F.1** **Energy Diagnostics – is a Physical Basis of the Metal Magnetic Memory Method** *A. Dubov, Energodiagnostika, Reutov, Moscow region, Russia*	**Th.2.G.1** **Optimal mix design of glass reinforced cementitious specimens based on innovative ultrasonic wave features** *S. Iliopoulos, Vrije Universiteit Brussel, Belgium*	**Th.2.H.1** **A Fast General Spectrum Model for Quantitative Radiography Simulation** *C. Bellon, BAM, Berlin, Germany*	**Th.2.I.1** 10:30 **Ultrasonic Assessment of Metal Microstructures, Modelling and Validation** *A. Volker, TNO, Delft, Netherlands*
10:50	**Th.2.E.2** **Modelling of Condition Monitoring with Imperfect Inspections** *V. Ulansky, National Aviation University, Kiev, Ukraine*	**Th.2.F.2** **Non-Contact Magnetometric Diagnostics of Welded Joints of Main Gas Pipelines Susceptible to Sudden Failures** *S. Kolokolnikov, Energo-diagnostika, Reutov, Moscow region, Russia*	**Th.2.G.2** **Efficiency of self-healing agents for cementitious materials characterized by NDT** *F. Malm, TU München, Germany*	**Th.2.H.2** **A Tool for Insertion of Simulation on Real Acquisition Files** *S. Bannouf, EXTENDE, Massy, France*	**Th.2.I.2** 10:50 **Magnetic Susceptibility Imaging as a New Approach towards Characterization and Testing of Para- and Diamagnetic Materials** *K. Szielasko, Fraunhofer IZFP, Saarbrücken, Germany*
11:10	**Th.2.E.3** **Novel NDT Technique for Detection of Delamination Type Defects in Structural Health Monitoring of Composites** *V. Samaitis, Kaunas University of Technology, Kaunas, Lithuania*	**Th.2.F.3** **Surface Inspection and Remanence Imaging with Magnetic Field Distortion Measurement** *S. Youssef, Fraunhofer IZFP, Saarbrücken, Germany*	**Th.2.G.3** **Detecting the Damage Depth of Concrete Structures after Exposure to High Temperatures by Using the Impact Echo Method** *H. Yang, National Center for Research on Earthquake Eng.,Taipei, Taiwan*	**Th.2.H.3** **New Way to handle Ultrasonic Complex Examinations** *J.M. Puybouffat, ROTEK Engineering, Cleveland, South Africa*	**Th.2.I.3** 11:10 **A Comparison between ASTM E588 and SEP 1927 Relating Resolution Limits at Determination of the Purity Grade** *D. Kotschate, BAM, Berlin, Germany*
11:30	**Th.2.E.4** **Condition Recognition of Valve Internal Leakage based on Infrared Thermography** *C. Xu, China University of Petroleum, Qingdao, China*	**Th.2.F.4** **About a New Classification of NDT Methods Based on Risks and Component Service Life** *A. Dubov, Energodiagnostika, Reutov, Moscow region, Russia*	**Th.2.G.4** **Research on Radiographic Testing of Steel Wire Ropes in Suspension Bridges** *P.-C. Peng, Dragon Steel, Taichung, Taiwan*	**Th.2.H.4** **Simulation of Ultrasonic Inspection of Complex Components Using a 3D-FDTD-Approach** *A. Pandala, Indian Institute of Technology Madras, Chennai, India*	**Th.2.I.4** 11:30 **The Application of Electromagnetic Measurements for the Assessment of Skin Passed Steel Samples** *A. Peyton, University of Manchester, UK*
11:50	**Th.2.E.5** **Prototypic Simulation Platform for Structural Health Monitoring Ultrasonic Transducer Networks** *R. Sridaran Venkat, Universität des Saarlandes, Saarbrücken, Germany*	**Th.2.F.5** **Study on Stress Concentration Testing and Integrity Assessment of Offshore Oil and Gas Wells Casing** *X. Zhang, China University of Petroleum, Beijing, China*	**Th.2.G.5** **NDT in Building – Examination of a Mounting Plate Made of Concrete and the Subsoil as Part of a Failed Lifting Operation** *A. Hasenstab, Ingenieurbüro Dr. Hasenstab, Augsburg, Germany*	**Th.2.H.5** **A numerical approach for the simulation of impact echo measurements** *F. Krome, BAM, Berlin, Germany*	**Th.2.I.5** 11:50 **Nondestructive Determination of Textural Features in Steel Sheet** *M. Stolzenberg, Salzgitter Mannesmann Forschung, Salzgitter, Germany*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Th.3.A *ULTRASONIC – TOTAL FOCUSSING METHOD 2* *J. Büchler, M. Mienczakowski*	**Th.3.B** *NDT OF ADHESIVE BONDING 1* *D. Moore, J. Moysan*	**Th.3.C** *RESONANCE TECHNOLOGY* *M. Kreutzbruck*	**Th.3.D** *CORROSION DETECTION 3* *S.F. Burch, M. Grenier*
13:30	**Th.3.A.1** **Adaptive Ultrasonic Imaging with a Phased-array Probe Equipped with a Water-filled Conformable Wedge** *F. Cartier, CEA-LIST, Gif-sur-Yvette, France*	**Th.3.B.1** **Development of an industrialized inspection method to monitor the wetting behavior of CFRP parts prior bonding or coating** *C. Cherrier, Automation W+R, München, Germany*	**Th.3.C.1** **Resonant Defects: A New Approach to Highly-sensitive Ultrasound-activated NDT Techniques** *I. Solodov, Universität Stuttgart, Germany*	**Th.3.D.1** **Corrosion Detection and Measurement Improvement Using Advanced Ultrasonic Tools** *L. Le Ber, M2M-NDT, Les Ulis, France*
13:50	**Th.3.A.2** **Practical Application of Total Focusing for Sizing of Imperfections in Welded Joints** *M. Berke, Köln, Germany*	**Th.3.B.2** **Discrimination of Different Levels of Adhesion in a Bi Layer Aluminum/Epoxy Structure Using Lamb Waves** *C. Gauthier, Université Le Havre, France*	**Th.3.C.2** **Detection of pipe wall-thinning based on change of natural frequencies of shell vibration modes** *S. Han, Korea Atomic Energy Research Institute, Daejeon, South Korea*	**Th.3.D.2** **Corrosion Detection by Means of Acoustic Emission (AE) Monitoring** *P. Tscheliesnig, TÜV AUSTRIA SERVICES, Wien, Austria*
14:10	**Th.3.A.3** **Application of a FMC/ TFM Ultrasonic System to Inspection of Austenitic Welds** *R. ten Grotenhuis, Ontario Power Generation, Toronto, Canada*	**Th.3.B.3** **Adhesive Thickness Measurement on Composite Aerospace Structures using Guided Waves** *L. Taupin, CEA-LIST, Gif-sur-Yvette, France*	**Th.3.C.3** **Local Defect Resonance-based shearography to increase the selectivity of defects** *N. Gulnizkij, Universität Stuttgart, Germany*	**Th.3.D.3** **Ultrasonic Inspection for Stress Corrosion Cracking in Weld Overlay Cladding** *C. Nageswaran, TWI, Cambridge, UK*
14:30	**Th.3.A.4** **Advantages and Complementarity of Phased-Array Technology and Total Focusing Method** *F. Reverdy, M2M-NDT, Les Ulis, France*	**Th.3.B.4** **Crack Growth Monitoring at CFRP Adhesive Bondings** *W. Adebahr, Universität Stuttgart, Germany*	**Th.3.C.4** **Identification of Flawed CFRC Samples Using Local Acoustic Resonance Spectroscopy (LARS)** *P. Jatzlau, TU München, Germany*	**Th.3.D.4** **Measurement of Residual Thickness in Case of Corrosion Close to the Welds with an Adaptive Total Focusing Method** *O. Roy, M2M-NDT, Les Ulis, France*
14:50	**Th.3.A.5** **Application of the Total Focusing Method for Improved Defect Characterization in the Production of Steel Tubes, Pipes and Plates** *T. Schmitte, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**Th.3.B.5** **Development and optimization of the laser shock wave adhesion test for composite bonding quality assessment** *R. Ecault, Airbus Group Innovations, Toulouse, France*	**Th.3.C.5** **Possibilities and Limits of Acoustic Resonance Technology (ART) for Material Structure Testing** *J. Ritter, RTE Akustik + Prüftechnik, Pfinztal, Germany*	**Th.3.D.5** **Modelling Based Optimization of Digital Radiography for Subsea Pipelines** *M.I. Haith, Imperial College London, UK*
15:10	Break			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Th.3.E *STRUCTURAL HEALTH MONITORING 2* *A. Gianneo, R. Lyon*	**Th.3.F** *LASER ULTRASONICS* *U. Rabe, H. Wang*	**Th.3.G** *SURFACE METHODS – ELECTROMAGNETIC INSPECTION* *E. Rau, L. Zhou*	**Th.3.H** *MODELLING AND DATA PROCESSING – ULTRASONIC METHODS 2* *B. Gao, A. Volker*	**Th.3.I** *MATERIALS CHARACTERISATION – METALS – EDDY CURRENT* *T. Heckel, J. Maier*
13:30	**Th.3.E.1** **Vibration Signal Modeling for a Planetary Gear Set** *M. J. Zuo, University of Alberta, Edmonton, Canada*	**Th.3.F.1** **Detection of Casting Defects in Aluminum Slabs by Laser Ultrasonic Measurements** *J. Roither, Recendt, Linz, Austria*	**Th.3.G.1** **Capability of modern tank floor scanning with Magnetic Flux Leakage** *J. Costain, Silverwing, Swansea, UK*	**Th.3.H.1** **Mode-converted Diffuse Ultrasonic Scattering from Elongated Grains** *J. Turner, University of Nebraska-Lincoln, USA*	**Th.3.I.1** 13:30 **Supervision on the Hardening Process of Roller Bearings by using Eddy Current Testing Methods** *M.W. Seidel, imq, Crimmitschau, Germany*
13:50	**Th.3.E.2** **The interpretation of on-load data for power station creep life monitoring** *J. Corcoran, Imperial College, London, UK*	**Th.3.F.2** **Laser Ultrasonic Characterisation of Rolled Steel Strip: Wave Propagation in Inhomogeneous Thin Sheets** *D. Krix, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**Th.3.G.2** **Automated Material Identification Using Magneto Inductive Eddy Current Technique in Combination with Self-Learning Algorithms** *A. Bergmann, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**Th.3.H.2** **Characterisation of the Reflection Behavior of Lap-Type Defects in Steel Tubes with Photoelastic Effect and UT Simulation** *T. Orth, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**Th.3.I.2** 13:50 **Detection of near Surface Damages in Crank Shafts by using Eddy Current Testing** *A. Zösch, imq, Crimmitschau, Germany*
14:10	**Th.3.E.3** **Wireless Power Transfer to Low Frequency (LF) RFID Sensor System for Structural Health Monitoring (SHM) at High Temperature Environment** *A. Imam, Newcastle University, UK*	**Th.3.F.3** **Defect Detection Using High-Frequency, Non-Contact Ultrasound Under a Practical Point of View** *B. Köhler, Fraunhofer IKTS, Dresden, Germany*	**Th.3.G.3** **Flexible PCB Eddy Current Array Probes for the Surface Inspection of Welds and Pipes** *A. Lamarre, Olympus Scientific Solutions Americas, Quebec City, Canada*	**Th.3.H.3** **Modelling Ultrasonic Attenuation Due to Scattering in Complex Microstructures** *D. Neumann, University of Birmingham, UK*	**Th.3.I.3** 14:10 **Characterization of Cold Rolling-Induced Martensite in Austenitic Stainless Steels** *M.C. Ruch, Comisión Nacional de Energía Atomica, San Martin, Argentina*
14:30	**Th.3.E.4** **Structural Health Monitoring of Compressor Blades with the use of Variable Reluctance Sensor and Impedance Method** *M. Witos, Air Force Institute of Technology, Warsaw, Poland*	**Th.3.F.4** **Laser Ultrasonics Inspections of Aeronautical Components by Means of Robotic Systems** *E. Cuevas Aguado, Tecnatom, San Sebastian de los Reyes, Spain*	**Th.3.G.4** **Thickness measurement of steel plate using magnetic principle** *Z.S. Lim, RIST, Pohang, South Korea*	**Th.3.H.4** **Simulation of Ultrasonic Materials Evaluation Experiments in Complex Media** *D. Dobrovolskij, Fraunhofer IZFP, Saarbrücken, Germany*	**Th.3.I.4** 14:30 **In-Situ Monitoring of the Microstructure Formation Using Eddy Current Technology** *O. Bruchwald, Leibniz Universität Hannover, Garbsen, Germany*
14:50	**Th.3.E.5** **Development of the Fabrication Process and Characterization of Piezoelectric BaTiO3/ Epoxy Composite to the Used for Coated Ultrasonic Transducer Patterns in Structural Health Monitoring** *O. Bareiro Ferreira, Universität des Saarlandes, Saarbrücken, Germany*	**Th.3.F.5** **Fast Non-contact Defect Imaging with Scanning Laser Source Technique** *T. Hayashi, Kyoto University, Japan*	**Th.3.G.5** **Chill Marks Effects Detection Algorithm for Plant IMPOC Data** *T. Kebe, ThyssenKrupp Steel Europe, Duisburg, Germany*	**Th.3.H.5** **Image-Based Finite Element Simulation of Ultrasonic Wave in Polycrystalline Metal using Phase-Field Modeling** *K. Nakahata, Ehime University, Matsuyama, Japan*	**Th.3.I.5** 14:50 **Material Characterization of Thin Coatings Using High Frequency Eddy Current Technology** *O. Bruchwald, Leibniz Universität Hannover, Garbsen, Germany*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Th.4.A *ULTRASONIC TESTING* *A. Bulavinov, H. Rieder*	**Th.4.B** *NDT OF ADHESIVE BONDING 2* *W. Adebahr, S. Dos Santos*	**Th.4.C** *MATERIALS CHARACTERISATION – COMPOSITES – MODELLING* *S. Schuhmacher, J. Welter*	**Th.4.D** *INFRARED AND OPTICAL* *C. Maierhofer, P. Menner*
15:40	**Th.4.A.1** **The Use of Ultrasonic Inspections at Elevated Temperature** *F. Gabriëls, TÜV Rheinland Sonovation, Oosterhout, Netherlands*	**Th.4.B.1** **Bondline Boundary Assessment of Cohesive Bonded Solid Woven Carbon Fiber Composites Using Advanced Diagnostic Methods** *D. Moore, Sandia National Laboratories, Albuquerque, USA*	**Th.4.C.1** **Progress in Modelling the Mechanical Performance of Composites with Winkles and Waviness Based on NDT Data** *N. Xie, University of Bristol, UK*	**Th.4.D.1** **Laser Speckle Photometry (LSP) – Optical Sensor System for Monitoring of Material Condition and Processing** *U. Cikalova, Fraunhofer IKTS, Dresden, Germany*
16:00	**Th.4.A.2** **Ultrasonic and Magnetic Particle Testing of New Railway Wheels** *W.A.K. Deutsch, KARL DEUTSCH Prüf- und Messgerätebau, Wuppertal, Germany*	**Th.4.B.2** **In-situ Ultrasonic Testing of Polymeric Adhesive Bonds Exposed to Complex Mechanical and Environmental Loads** *U. Rabe, Fraunhofer IZFP, Saarbrücken, Germany*	**Th.4.C.2** **Inductive Thermal Nondestructive Evaluation: Multi-dimension Pattern Interpretation and Separation** *B. Gao, Univ. of Electronic Science and Technology of China, Chengdu, China*	**Th.4.D.2** **Shearography as Non-Destructive Testing Method in the Application of Adhesive Tapes** *I. Kryukov, Universität Kassel, Germany*
16:20	**Th.4.A.3** **Experience with Advanced NDT Methods in Turbine Field Service** *H. Rauschenbach, Siemens, Mülheim a. d. Ruhr, Germany*	**Th.4.B.3** **Characterization of Cohesive and Adhesive Properties of Adhesive Bonds Using Transmitted Ultrasonic Waves** *A. Meziane, Université Bordeaux, Talence, France*	**Th.4.C.3** **Experimental Validation of Analytical and Numerical Modelling for Carbon-Fibre Reinforced Polymers Including Porosity** *R. Tayong Boumda, University of Bristol, UK*	**Th.4.D.3** **Smaller Than the Eye Can See: Vibration Analysis with Video Cameras** *J. Chen, Massachusetts Institute of Technology, Cambridge, USA*
16:40	**Th.4.A.4** **Ultrasound tomography on hyper velocity impact targets** *C.U. Große, TU München, Germany*	**Th.4.B.4** **Innovating for Structural Adhesive Bonding Evaluation and Analysis with Ultrasounds** *J. Moysan, Aix Marseille University, Aix-en-Provence, France*	**Th.4.C.4** **Quantitative Defect Reconstruction in Active Thermography for Fiber-Reinforced Composites** *S. Götschel, Zuse-Institut Berlin (ZIB), Germany*	**Th.4.D.4** **Photothermal Coherence Tomographies – Principles and Non-Destructive Imaging Applications** *A. Mandelis, University of Toronto, Canada*
17:00	**Th.4.A.5** **Application of pseudo-stochastic excitation in ultrasonic echo experiments for improved time-resolution at low frequencies** *P. Holstein, SONOTEC, Halle (Saale), Germany*	**Th.4.B.5** **A Finite Element Simulation and Verification of Ultrasound Propagating through the Interface of Diffusion Bonded Dissimilar Nickel-Based Superalloys** *Z. Sha, AVIC Beijing institute of aeronautical materials, Beijing, China*	**Th.4.C.5** **Monitoring Fatigue Damage in CFRP Using Ultrasonic Birefringence** *P. Fey, Universität Stuttgart, Germany*	**Th.4.D.5** **Non-destructive testing of green sanitary ceramics by an active thermographic technique** *U. Netzelmann, Fraunhofer IZFP, Saarbrücken, Germany*

20:00 **Bavarian Evening at restaurant „Löwenbräukeller“**

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Th.4.E *STRUCTURAL HEALTH MONITORING – ACOUSTIC* *J. Ritter, B. Weihnacht*	**Th.4.F** *LASER ULTRASONICS AND NEW METHODS* *E. Cuevas Aguado, J. Roither*	**Th.4.G** *CIVIL ENGINEERING – ACOUSTIC EMISSION* *T. Jäppinen, H. Vallen*	**Th.4.H** *MODELLING AND DATA PROCESSING* *L. Le Ber, J. Turner*	**Th.4.I** *THERMOGRAPHY* *B. Oswald-Tranta, M. Rahammer*
15:40	**Th.4.E.1** **Optimized ATEX Acoustic Emission Measuring Chains for Particle Size Monitoring in Industrial Plants** *T. Urbank, Kistler Instrument, Amherst, USA*	**Th.4.F.1** **Flexible Ultrasonic Transducer for Laser Ultrasound Imaging of Defects in Curved Structures** *T.C. Wu, National Taipei University of Technology, Taiwan*	**Th.4.G.1** **Influence of the Water and Aggregate-to-Cement Ratio on the AE Activity of Fresh Concrete** *S. Iliopoulos, Vrije Universiteit Brussel, Belgium*	**Th.4.H.1** **Bandwidth of MFL in steel plate inspection** *N. Pearson, Silverwing, Swansea, UK*	**Th.4.I.1** 15:40 **Theory and Practice of Thermographic Signal reconstruction** *S.M. Shepard, Thermal Wave Imaging, Ferndale, USA*
16:00	**Th.4.E.2** **Research on the Signal Propagation Characteristics of Acoustic Emission and Localization of the Gas Pipe Network Leak** *C. Xu, China University of Petroleum, Qingdao, China*	**Th.4.F.2** **A New Concept for the Non-Destructive Testing of Fiber-Reinforced Plastics via Laser Generated Ultrasonic Guided Waves** *B. Kelkel, Institut für Verbundwerkstoffe, Kaiserslautern, Germany*	**Th.4.G.2** **Acoustic Emission Monitoring of Reinforcing Bars Pull-out from Concrete Matrix** *D.G. Aggelis, Vrije Universiteit Brussel, Belgium*	**Th.4.H.2** **Inspection Configuration Design for Automated Ultrasonic Testing of Large Casted Cask Bodies using Phased Array Techniques** *T. Orth, Salzgitter Mannesmann Forschung, Duisburg, Germany*	**Th.4.I.2** 16:00 **Laser Projected Photothermal Thermography for Characterizing Hidden Defects** *E. Thiel, BAM, Berlin, Germany*
16:20	**Th.4.E.3** **Psychoacoustic-motivated advancement of the tap test for wind turbine rotor blades** *G. Andreisek, TU München, Germany*	**Th.4.F.3** **Fast Inversion Calculation for Full-field Measurement of Material Properties with Quantitative Laser Ultrasound Visualization System** *S.-P. Tseng, National Taipei University of Technology, Taiwan*	**Th.4.G.3** **Pullout experiments on bonded anchors monitored via acoustic emission techniques** *M. Botz, TU München, Germany*	**Th.4.H.3** **Validation of Ultrasonic Wave Propagation in Austenitic Welds** *C. Nageswaran, TWI, Cambridge, UK*	**Th.4.I.3** 16:20 **Induction Excited Thermography in Industrial Applications** *C. Srajbr, edevis, Stuttgart, Germany*
16:40	**Th.4.E.4** **Structural Health Monitoring and Non Destructive Testing of fatigue crack growth in bonded CFRP-CFRP Lap Joints** *A. Gianneo, Politecnico di Milano, Italy*	**Th.4.F.4** **Evaluation of Friction Stir Welding Process by Laser Ultrasonic Method with Synthetic Aperture Focusing Technique** *Z. Zhou, Beihang University, Beijing, China*	**Th.4.G.4** **Bridge Testing and Monitoring of Steel Components with Acoustic Emission** *M. Löhr, GMA-Werkstoffprüfung, Hamburg, Germany*	**Th.4.H.4** **Modelling the ECT of U-Bend Steam Generator Tubes by the Boundary Element Method** *C. Reboud, CEA, Gif-sur-Yvette, France*	**Th.4.I.4** 16:40 **Data Processing Procedures for Defects Evaluation in Compsite Materials by Means of Stimulated Thermography** *U. Galietti, Politecnico di Bari, Italy*
17:00	**Th.4.E.5** **Smelting Furnace Non Destructive Testing (NDT) and Monitoring** *A. Sadri, Hatch, Mississauga, Canada*	**Th.4.F.5** **Through-lifecycle Product Quality in Additive Manufacturing** *K. Milne, The Manufacturing Technology Centre, Coventry, UK*	**Th.4.G.5** **Monitoring of the Structural Behaviour of Hybrid Concrete Beams by Means of Acoustic Emission and Digital Image Correlation** *D.G. Aggelis, Vrije Universiteit Brussel, Belgium*	**Th.4.H.5** **Overview of the finite elements modeling of the ultrasonic propagation in complex media at EDF R&D** *P.-E. Lhuillier, EDF R&D, Moret sur Loing, France*	**Th.4.I.5** 17:00 **Numerical and Experimental Investigation of Eddy Current Thermography Technique on Metallic Samples** *I.M. Zainal Abidin, Malaysian Nuclear Agency, Kajang, Malaysia*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Fr.1.A *WELDING – ULTRASONIC METHODS* *F. Jenson, C. Köhler*	**Fr.1.B** *AUTOMOTIVE SPOT WELDS* *G.A. Ciliberti, P. Myrach*	**Fr.1.C** *STANDARDISATION* *E. Motukisi, M. Sengebusch*	**Fr.1.D** *PROJECT MAIZFP – COMPOSITES* *H.-G. Herrmann, M. Kreutzbruck*
08:30	**Fr.1.A.1** **Accuracy in Sizing Discontinuities with Phased Array Ultrasonic Technique** *G. Nardoni, I&T Nardoni Institute, Brescia, Italy*	**Fr.1.B.1** **Optimization of Spot Welding Processes in Low Carbon hot Rolled Sheets** *A. Butt, Experts, Islamabad, Pakistan*	**Fr.1.C.1** **Technical and Practical Requirements, New Possibilities, Actual and Upcoming Standardization of UV-LED Lamps for Fluorescent Magnetic-Particle-(MPI) and Penetrant Inspection (FPI)** *M. Breit, RIL-CHEMIE/Secu-CHEK, Kleinblittersdorf, Germany*	**Fr.1.D.1** **MAIzfp – A Joint Research Effort on NDT of Fiber Reinforced Composites within the Leading Edge Cluster MAI Carbon** *M.G.R. Sause, Universität Augsburg, Germany*
08:50	**Fr.1.A.2** **Improved Inspection of CRA-Clad Pipe Welds with Accessible Advanced Ultrasonic Phased-Array Technology** *A. Lamarre, Olympus Scientific Solutions Americas, Quebec City, Canada*	**Fr.1.B.2** **PHAsis-one – Phased Array Spotweld Inspection System** *E. Roddewig, VOGT Ultrasonics, Burgwedel, Germany*	**Fr.1.C.2** **Monitoring of Penetration System Performance due to ISO 3452-1 by using Test Panels due to ISO 3452-3** *A. Kinzel, MPA Hannover, Garbsen, Germany*	**Fr.1.D.2** **Comparison of NDT Techniques to Evaluate CFRC – Results Obtained in a MAIzfp Round Robin Test** *C.U. Große, TU München, Germany*
09:10	**Fr.1.A.3** **Phase Array Ultrasonic Testing (PAUT) & Time of Flight Diffraction (TOFD) of DSS Piping of very high thickness (70 mm)** *A. Khare, Larsen & Toubro, Mumbai, India*	**Fr.1.B.3** **Remanent Magnetization for Non-Destructive Testing of Spot Welds** *C. Mathiszik, TU Dresden, Germany*	**Fr.1.C.3** **The Implementation of the New Standard EN ISO 18563 for Ultrasonic Phased-Array Systems at the Manufacturer** *J. Büchler, GE Sensing & Inspection Technologies, Hürth, Germany*	**Fr.1.D.3** **Numerical Modeling of Ultrasonic Inspection in Fiber Reinforced Materials with Explicit Microstructure** *A.-M. Zelenyak, Universität Augsburg, Germany*
09:30	**Fr.1.A.4** **Investigation of Ultrasonic Techniques for Inspection of Dissimilar Joints** *E. Jasiuniene, Kaunas University of Technology, Kaunas, Lithuania*	**Fr.1.B.4** **Imaging Ultrasonic Testing of Resistance Spot Welds – Manual and Automated Testing Procedure** *M. Huppmann, AUDI, Neckarsulm, Germany*	**Fr.1.C.4** **Porosity – 'The good, the Bad and the Ugly' of Radiographic Testing** *H. Vaughan, SAIW, Johannesburg, South Africa*	**Fr.1.D.4** **Ultrasonic Imaging of Carbon Fiber-Reinforced Plastics Using the Full Matrix Capture Data Acquisition Technique** *J.-C. Grager, Siemens, München, Germany*
09:50	**Fr.1.A.5** **Use of Sectorial Scanning for Anisotropic Weld Inspection** *B. Dupont, CETIM, Senlis, France*	**Fr.1.B.5** **Development of an automated ultrasonic inspection device for quality control of spot welds** *R. Delgado de Molina, Tecnitestest ingenieros, Madrid, Spain*	**Fr.1.C.5** **A New Characterization Procedure for Computed Radiography Performance Levels Based on EPS, SNR and Basic Spatial Resolution Measurements** *U. Ewert, BAM, Berlin, Germany*	**Fr.1.D.5** **Combined Acoustic Emission and Thermographic Testing of Fiber Composites** *M. Goldammer, Siemens, München, Germany*
10:10	Break			

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Fr.1.E *STRUCTURAL HEALTH MONITORING – ULTRASONIC TESTING* *P. Mudge, M. Witos*	**Fr.1.F** *SENSOR CONCEPTS 2* *M. Gaal, M. Missous*	**Fr.1.G** *PIPELINE IN-SERVICE INSPECTION* *J. Fan, R. Koch*	**Fr.1.H** *MODELLING AND DATA PROCESSING – SIMULATIONS 2* *Y. Gabi, F. Schubert*	**Fr.1.I** *MATERIALS CHARACTERISATION – POLYMERS* *S. Kremling, D. Treppmann*
08:30	**Fr.1.E.1** **Damage Detection and Healing Performance Monitoring using Embedded Piezoelectric Transducers in Large-scale Concrete Structures** *E. Tsangouri, Vrije Universiteit Brussel, Belgium*	**Fr.1.F.1** **Vertical Eddy Current Method for Nondestructive Testing of CFRP** *Z. Zeng, Xiamen University, Xiamen, China*	**Fr.1.G.1** **Improvement of the Quality of Large Size ERW Pipes and their Nondestructive Testing to Use in High Pressure Oil and Gas Pipelines** *M. Ghaemi, IRNDT, Tehran, Iran*	**Fr.1.H.1** **Combining Analytical and Monte Carlo Modelling for Industrial Radiology** *C. Bellon, BAM, Berlin, Germany*	**Fr.1.I.1** 08:30 **Ultrasonic Phased Array Evaluation of the Integrity of Polyethylene Piping Systems** *F. Angelini, Institut de Soudure, Villepinte, France*
08:50	**Fr.1.E.2** **Lamb Wave Interactions in CFRP Plates** *G. Mook, Otto-von-Guericke-Universität Magdeburg, Germany*	**Fr.1.F.2** **Forced Magnetic Field Leakage (FMFL) – A new Approach to Non-Destructive Detection of Embedded Ferromagnetic Materials in Non-Magnetic Hosts** *E. Ahmad, University of Manchester, UK*	**Fr.1.G.2** **Internal Inspection of Flow Coating Pipelines** *Z. Klyuev, RII MSIA SPECTRUM, Moscow, Russia*	**Fr.1.H.2** **Transducer-to-Transducer Communication in Guided Wave Based Structural Health Monitoring** *J. Moll, Goethe Universität, Frankfurt am Main, Germany*	**Fr.1.I.2** 08:50 **Nonlinear Ultrasonic Response of TATB-Based Polymer Bonded Explosive Under Compression Fatigue Loading** *Z.-f. Yang, China Academy of Engineering Physics, Mianyang, China*
09:10	**Fr.1.E.3** **A Novel Piezoelectric Fibre Patch Transducer for Shear Horizontal Wave Modes** *B. Köhler, Fraunhofer IKTS, Dresden, Germany*	**Fr.1.F.3** **Recent Advancements in Lorentz Force Eddy Current Testing** *H. Brauer, Technische Universität Ilmenau, Germany*	**Fr.1.G.3** **A Novel Non Destructive Technology for Pipe Grade Determination and MAOP/Design Pressure Validation of Operating Pipelines** *T. Eiken, ROSEN Technology, Lingen, Germany*	**Fr.1.H.3** **Study of PA-TOFD Inspection based on Numerical Simulation** *S. Zhang, China Nuclear Industry 23 Construction, Beijing, China*	**Fr.1.I.3** 09:10 **Weld Line Characterisation Using Various Contact and Non-Contact Ultrasound Techniques** *P. Fey, Universität Stuttgart, Germany*
09:30	**Fr.1.E.4** **Guided Wave Structural Health Monitoring of Porous Composite Sandwich Structures** *C.-C. Yin, National Chiao Tung University, Hsinchu, Taiwan*	**Fr.1.F.4** **A New Pattern of Acoustic Delay-Line Based on Wedge Wave** *P.-H. Tung, National Taipei University of Technology, Taiwan*	**Fr.1.G.4** **Innovation in 3D scanning technology and software is pushing the limits of complex corrosion and mechanical damage assessment on pipelines.** *C. Piron, AMETEK, Fontaine, France*	**Fr.1.H.4** **Ray Tracing Boundary Value Problems: Simulation and SAFT Reconstruction for Ultrasonic Testing** *S. Götschel, Zuse-Institut Berlin (ZIB), Germany*	**Fr.1.I.4** 09:30 **Characterization of polymer-based materials using fluorescence method and fractal analysis** *J. Opitz, Fraunhofer IKTS, Dresden, Germany*
09:50	**Fr.1.E.5** **Statistical Recognition of Structural Health in Composites through Ultrasonic Testing** *V. Memmolo, University of Naples Federico II, Napoli, Italy*	**Fr.1.F.5** **Wood Adhesives for Non-Destructive Structural Monitoring** *C. Winkler, HNE Eberswalde, Germany*	**Fr.1.G.5** **Application of Combined EMAT, MFL and EC ILI to Assess Complex Corrosion in Gas Pipeline Systems** *S. Klein, NDT Global, Stutensee, Germany*	**Fr.1.H.5** **Simulation of ultrasonic inspections of composite structures in the CIVA software platform** *K. Jezzine, CEA-LIST, Gif-sur-Yvette, France*	**Fr.1.I.5** 09:50 **Talbot-Lau grating interferometry CT for the quantitative characterization of damage in polymers after impact and static tensile testing** *J. Kastner, University of Applied Sciences Upper Austria, Wels, Austria*

GROUND FLOOR

	Saal 1 (Auditorium)	Saal 2	Saal 3	Saal 4
	Fr.2.A *WELDING – VARIOUS METHODS* *L. Hörchens, E. Jasiuniene*	**Fr.2.B** *MARINE* *E. Bayer, A. Erhard*	**Fr.2.C** *CULTURAL HERITAGE 2* *G. Dobmann, D. Foppoli*	**Fr.2.D** *PROCESS MONITORING 3* *T. Fuchs, B. Illerhaus*
10:40	**Fr.2.A.1** **Defect recognition and strength evaluation of dissimilar diffusion bonding based on support vector machine** *Y. Luan, Heilongjiang University of Science and Technology, Harbin, China*	**Fr.2.B.1** **Australian Innovations in Structural Health Monitoring for Aeronautical and Maritime Applications** *C.M. Scala, Christine Scala Management, Glen Iris, Australia*	**Fr.2.C.1** **THz Pulsed Time Domain Imaging Applied to Museum Objects and its Comparison with other Frequency Regions** *K. Fukunaga, National Institute of ICT, Tokyo, Japan*	**Fr.2.D.1** **Non Contact High Precision Distance Measurement Using Single Probe Ultrasonic Transducer** *S. Prasanna Sudhakaran, Centre for Development of Advanced Computing, Thiruvananthapuram, India*
11:00	**Fr.2.A.2** **Field Deployable Digital X-Ray for Weld Inspection in Oil & Gas** *S. Wissels, GE Sensing & Inspection Technologies, Berchem, Belgium*	**Fr.2.B.2** **Development of In-situ Ultrasonic Inspection of Offshore Mooring Chains** *C. Nageswaran, TWI, Cambridge, UK*	**Fr.2.C.2** **NDT at Historic Churches and Castles with Radar, Drilling-Resistance and Ultrasonic Echo Technique** *A. Hasenstab, Ingenieurbüro Dr. Hasenstab, Augsburg, Germany*	**Fr.2.D.2** **Inline Production Monitoring by Cascading Radiographic and Computed Tomography Techniques** *T. Stocker, Fraunhofer EZRT, Fürth, Germany*
11:20	**Fr.2.A.3** **Maximized Reliability of Testing Results of Mixed Materials Weld, Through the Combination of Eddy Current Testing with Phased Array Ultrasonic Testing in the Confined Environment of Power Station Header Nipples** *T. Hartman, SGS Germany, Herne, Germany*	**Fr.2.B.3** **Practical System for Monitoring Current Stress and Accumulated Fatigue of Vessel Hull using Nondestructive Method, by Measuring Magnetic Properties of the Metal, the Coercive Force** *R. Solomakha, Special Scientific Engineering, Kharkiv, Ukraine*	**Fr.2.C.3** **Fatigue Crack Detection on Unique Church Bells by Modal Analysis** *A. Rupp, Hochschule Kempten, Germany*	**Fr.2.D.3** **Physical and Technical Boundary Conditions for an Automated Industrial 3D-CT Inspection Dealing with Typical Production Cycle Times** *S. Gondrom-Linke, Volume Graphics, Heidelberg, Germany*
11:40	**Fr.2.A.4** **Automated inspection of welds with limited access by use of active thermography with laser line excitation** *A. García de la Yedra, IK4-LORTEK, Ordizia, Spain*	**Fr.2.B.4** **Surface, Near-Surface and Volume Inspection of Cast Components Using Complementary NDT Approaches** *M. Spies, Fraunhofer IZFP, Saarbrücken, Germany*	**Fr.2.C.4** **An XXL-CT-scan of an XXL Tyrannosaurus rex skull** *N. Reims, Fraunhofer EZRT, Fürth, Germany*	**Fr.2.D.4** **In-Situ observation of bubble formation in neat resin during curing process by means of X-Ray computed tomography** *B. Plank, University of Applied Sciences Upper Austria, Wels, Austria*

12:30 **Closing Ceremony – Saal 1 (Auditorium)**

FIRST FLOOR

	Saal 5	Saal 11	Saal 13 A	Saal 13 B	Saal 14 C
	Fr.2.E *UNDERGROUND INFRASTRUCTURE 2* *M. Lowe, M. Manavipour*	**Fr.2.F** *PUBLIC SECURITY AND HUMANITARIAN SAFETY* *G. Aufricht, V. Krstelj*	**Fr.2.G** *MICROWAVES AND TERAHERTZ 2* *S. Becker, J. Jonuscheit*	**Fr.2.H** *DIGITAL RADIOLOGY AND RADIOGRAPHY 2* *M.I. Haith, B. Redmer*	**Fr.2.I** *GUIDED WAVES – STRUCTURAL ENGINEERING* *J. Moll, R. Roberts*
10:40	**Fr.2.E.1** **Applying Acoustic Pulse Reflectometry in Local Gas Distribution Networks** *K. Groves, University of Manchester, UK*	**Fr.2.F.1** **T-Sense - the New Generation of Non-contact Transmission Imaging with Non-ionizing Radiation** *D. Nüßler, Fraunhofer FHR, Wachtberg, Germany*	**Fr.2.G.1** **Real-time NDT of Automobile Bumpers with Millimeter-Wave Imaging Technology** *S. Ahmed, Rohde & Schwarz, München, Germany*	**Fr.2.H.1** **Choice of LDA vs. TDI (Time Delayed Integration) as DR Device for High Energy X-ray NDT** *L. Yang, X-Scan Imaging Corporation, San Jose, USA*	**Fr.2.I.1** 10:40 **A signal enhancement method for magnetostrictive guided wave testing of pipeline based on mechanical attachments** *M. Cong, Huazhong University of Science and Technology, Wuhan, China*
11:00	**Fr.2.E.2** **Soil Saturation Detection from in Pipe Ultrasound Measurements** *R. Collins, University of Sheffield, UK*	**Fr.2.F.2** **Advances in Scanning X-ray Beam Imaging** *M. Rommel, American Science and Engineering, Billerica, USA*	**Fr.2.G.2** **Contact-free Control of Composites and their Manufacturing Processes by Ultrafast Pulsed THz Sensing** *U. Schmidhammer, Université Paris Sud – CNRS, Orsay, France*	**Fr.2.H.2** **Influence of X-Ray Focal Spot Orientation and High-Voltage on DR and CT Results** *A. Lessmann, YXLON International, Hamburg, Germany*	**Fr.2.I.2** 11:00 **Guided Wave Testing (GWT) on High Temperature Piping** *J. Fong, Guided Ultrasonics, Brentford, UK*
11:20	**Fr.2.E.3** **Remote Sensing of Free-Surface Flows with Arrays of Ultrasonic Sensors in Air** *K. Horoshenkov, University of Sheffield, UK*	**Fr.2.F.3** **Digital Radiography for Cargo Inspection – Data Acquisition and Evaluation** *T. Lüthi, EMPA, Dübendorf, Switzerland*	**Fr.2.G.3** **Fast terahertz volume inspection for industrial process control** *F. Friederich, Fraunhofer IPM, Kaiserslautern, Germany*	**Fr.2.H.3** **Practical Considerations and Effects of Metallic Screen Fluorescence and Backscatter Control in Gamma Computed Radiography** *S. Mango, Carestream NDT, Rochester, USA*	**Fr.2.I.3** 11:20 **Corrosion and Defect Inspection of Inaccessible Components and Construction Parts with Long Range EMAT Technique** *F. Niese, Fraunhofer IZFP, Saarbrücken, Germany*
11:40	**Fr.2.E.4** **Robot Mapping and Localisation in Feature Sparse Water Pipes** *R. Collins, University of Sheffield, UK*	**Fr.2.F.4** **Electromagnetic Radiation of Terahertz Band** *A. Efimov, JSC RII „Spectrum“, Moscow, Russia*	**Fr.2.G.4** **Non-Contact Thickness Measurements with Terahertz Pulses** *A. Deninger, TOPTICA Photonics, Gräfelfing, Germany*	**Fr.2.H.4** **Influence of Scattered Radiation on the Efficiency of Dual-High Energy X-Ray Imaging for Material Characterization** *S. Kolkoori, BAM, Berlin, Germany*	**Fr.2.I.4** 11:40 **Application of the Ultrasonic Guided Wave for the Inspection of the Fuel Tank** *A. Jankauskas, Kaunas University of Technology, Kaunas, Lithuania*

Acoustic Methods

P1 **Reconstruction Algorithms for Enhanced Imaging and Interpretation of Impact-Echo Data**
D. Algernon, SVTI, Wallisellen, Switzerland

P2* **The Use of Acoustic Emission Method for Diagnosis of Damage of Pneumatic Valves**
P. Mazal, Brno University of Technology, Czech Republic

P3* **Heat Treatment and Tension Curves in Contemporary Steel Materials Monitored by Acoustic Emission**
G. Por, College of Dunáujváros, Hungary

P4* **Acoustic Emission Measurement During Low-Cycle Fatigue Test of Reactor Pressure Vessel Steels**
G. Por, College of Dunaujvaros, Hungary

P5 **Monitoring of the Reactive Air Brazing by Acoustic Emission Analysis**
R. Zielke, TU Dortmund, Germany

P6* **The Detection of Different Stages of the Delaminating in the Pressure Vessels Shells by the Ultrasonic and Acoustic Emission Technique**
K. Zotov, PANATEST, Moscow, Russia

Infrared and Optical

P7 **Traceable characterization of thermographic cameras and emissivity measurements for active thermography**
A. Adibekyan, PTB, Berlin, Germany

P8* **UV Testing Personnel Training and Certification**
G. Batov, SEC „Kachestvo“, Moscow, Russia

P9* **A robot inspection system allows the detection of defects in adhesive bonds between CFRP components by using active thermography, leading to reduces cycle times**
M. Busch, ZeMA – Zentrum für Mechatronik und Automatisierungstechnik, Saarbrücken, Germany

P10 **The Study on Thermal Characteristics According to the Liquid present Inside the Micro-Cracks of the Metal Specimen by using the Ultrasound infrared Thermography**
M.Y. Choi, Korea Research Inst. of Standards and Science, Daejeon, South Korea

P11 **Using the Correlation of Speckle Images to Monitor the Process of Crack Origination and Propagation under High-cycle Fatigue**
E. Gorkunov, Institute of Engineering Science, Ekaterinburg, Russia

P12 **Development of an infrared confocal microscope for axial location of hot spots in a multi-wafer stacked semiconductor structure**
H. Hur, KBSI, Daejeon, South Korea

P13* **Database Structure for Thermographic Inspection of CFRP Metal Hybrid Components**
M. Jelinek, Institute for Machine Tools and Industrial Management - Application Center Augsburg, Germany

P14* **Thermal characteristic and failure analysis of fully packaged devices using Lock-in Thermography**
S. Kim, KBSI, Daejeon, South Korea

P15* **Learning More on Thermoplastic Composites with Infrared Thermography**
C. Meola, University of Naples Federico II, Napoli, Italy

P16* **Active thermography for crack testing of railway wheels and rails**
U. Netzelmann, Fraunhofer IZFP, Saarbrücken, Germany

P17* **Application of Object Recognition in Locomotive Components Monitoring**
J. Peng, Southwest Jiaotong University, Chengdu, China

P18 **Active Thermographic Testing of CFRP with Ultrasonic and Flash Light Activation**
J. Pohl, Hochschule Anhalt, Köthen, Germany

P19* **Automated Non-destructive Testing of Hybrid Structures**
M. Schäfer, TU Braunschweig, Germany

* Posters with Short Presentation, see page 20 – 25

P20* **Measuring Strand Orientation in Carbon Fiber Reinforced Plastics (CFRP) with Polarization**
M. Schöberl, Fraunhofer IIS, Erlangen, Germany

P21* **Time is Money and Image is Everything – The Changing Face of the RVI Market**
T. Williams, Karl Storz Endoscopy, Chesterfield - Derbyshire, UK

Material Properties

P22* **Combination of Ultrasonic and Eddy Current Testing with Imaging for Characterization of Rolling Contact Fatigue**
R. Ahlbrink, Eurailscout Inspection & Analysis, Berlin, Germany

P23* **Tightening control by ultrasound**
F. Belahcene, ULTRA RS, Breviandes, France

P24* **Characterization of the states of aging of HP austenitic stainless steels through spectral analysis of ultrasonic signals**
N. Chaves de Siqueira, Federal University of Rio de Janeiro, Brazil

P25 **Study of the Phase Contrast for the Characterization of the Surface of the Laser Megajoule Microshell**
A. Choux, CEA DAM Bourgogne, Is sur Tille, France

P26 **Last Improvements on Characterization for the LMJ Targets Fabrication**
A. Choux, CEA DAM Bourgogne, Is sur Tille, France

P27 **Some NDT Approaches on Industrial Bonding Trying to Quantify its Quality**
M. Ducousso, SAFRAN, Itteville, France

P28* **Capability of Stress Wave Acoustic Tomography Technique for Predicting Internal Defects on Living Trees**
T. Dündar, Istanbul University, Bahçeköy, Turkey

P29 **Effect of Initial Stress-strain States on the Magnetic Behavior of Pipe Steels under Elastic Deformation**
E. Gorkunov, Institute of Engineering Science, Ekaterinburg, Russia

P30 **Magnetic Methods as Applied to Testing a Current State of Welded Joints**
E. Gorkunov, Institute of Engineering Science, Ekaterinburg, Russia

P31 **Detection of Sensitization for 600 Alloy and Austenitic Stainless Steel by Magnetic Field Sensor**
H. Kikuchi, Iwate University,
Morioka, Japan

P32 **Development of Simultaneous Nondestructive Evaluation using Magnetic Method for Material Characterization and Micro Defect**
H. Kikuchi, Iwate University,
Morioka, Japan

P33 **Reference Block Design for High Resolution Ultrasound Immersion Tank Testing**
D. Kotschate, BAM, Berlin, Germany

P34* **Quality control of induction hardened layer and of the grinding process in aerospace ball screws by magnetic Barkhausen noise analysis**
A. Martinez-de-Guerenu, CEIT, San Sebastián, Spain

P35* **Qness – Hardness Testing**
V. Meyer, Hahn-Kolb, Ludwigsburg, Germany

P36* **Nondestructive Testing of Material Properties and Defects in Hot Stamped Parts**
T. Müller, Fraunhofer IZFP, Saarbrücken, Germany

P37* **Monitoring with AE the Material Behaviour under Stress with Increasing Size of Planar Defects From Stability to Instability**
G. Nardoni, I&T Nardoni Institute, Brescia, Italy

* Posters with Short Presentation, see page 20 – 25

P38* **Time Efficient Nondestructive Characterization of Customized Magneto-optical Thin Layers for Industrial Use**
M. Rabung, Fraunhofer IZFP, Saarbrücken, Germany

P39 **Capabilities and Limitations of using the Residual Magnetic Field in NDT**
M. Roskosz, Silesian University of Technolgy, Gliwice, Poland

P40 **Using Barkhausen Noise to Develop a Method of Hardness Measurement**
M. Roskosz, Silesian University of Technolgy, Gliwice, Poland

P41 **Calculation and Analysis the Magnetic Parameters of the Minors Hysteresis Loop for Steels from the Basic Magnetic Parameters**
S. Sandomirski, National Academy of Sciences of Belarus, Minsk, Belarus

P42 **Analysis of the Structural Sensitivity of the Permeability Steels**
S. Sandomirski, National Academy of Sciences of Belarus, Minsk, Belarus

P43 **Detection of Sigma Phase Duplex Stainless Steel for Non-Destructive Testing Magnetic Barkhausen Noise**
É. Santos, University of São Paulo, Brazil

P44 **Evaluation of Traction and Compression Residual Stresses by Non-Destructive Ultrasound and Magnetic Barkhausen Noise Testing Methods**
É. Santos, University of São Paulo, Brazil

P45* **Relation Among the Ultrasonic Result and Defect form and Material Property in Laser Rapid Forming Titanium Alloy**
Y. Shi, AVIC Beijing institute of aeronautical materials, Beijing, China

P46 **Coercimetric Technological and Acceptance Testing of Welded Joints to Ensure their Useful Life as Exemplified By Butt Welding of Rail Joints, including Subsequent Operational Diagnostics**
R. Solomakha, Special Scientific Engineering, Kharkiv, Ukraine

P47* **Monitoring of Low Cycle Fatigue Damage with Eddy Current**
W. Thale, ROSEN Technology, Lingen, Germany

P48* **Distortion Analysis of Magnetic Excitation (DAME) – A Novel NDE Method for Evaluation of Properties of Ferromagnetic Materials**
M. Vaidhianathasamy, Newcastle University, UK

Radiography/ Computed Tomography

P49* **Supercomputing the Cascade Processes of Radiation Transport**
C. Bellon, BAM, Berlin, Germany

P50* **Contemporary Witnesses for the Forensic Analysis of the 14th and 15th Century Fingerprints on Town Seals Examined by Latest Micro-CT Technology. Sphragistics in Combination with NDT**
K.U. Berg, BMB, Heilbronn, Germany

P51* **Advances in High Energy X-ray Digital Detector Arrays**
C. Bueno, GE Global Research Center, Niskayuna, USA

P52* **The design and performance test of the first high energy industrial FPD of China**
H. Chen, China Academy of Engineering Physics, Mianyang, China

P53* **Transfer of Technology as a Panacea to Indigenous Technological Development**
H. Chimezie, National Centre for NDT, Effurun, Nigeria

P54* **Inner Stress and Strain Analysis of Granular Material by Compression Molding Using Micro-tomography**
B. Dai, China Academy of Engineering Physics, Mianyang, China

P55 **Relationship between Image Plates Physical Structure and Quality of Digital Radiographic Images in Weld Inspections**
D. Ferreira de Oliveira, Federal University of Rio de Janeiro, Brazil

P56 **Research on Defect Depth Measurement Algorithm In Digital Radiography Testing**
W. Guo, Beijing University of Posts and Telecommunications, China

P57* **Nondestructive extraction of fiber orientation in composites from CT-scan: a comparative study**
O. Guiraud, NOVITOM, Grenoble, France

P58* **Static and Dynamic In-situ-computed-tomography for Dimensional Metrology Applications**
P. Hornberger, Fraunhofer IIS, Deggendorf, Germany

P59* **Fast X-ray Digital Radiography Equipment for In-line Production Control**
M. Iovea, Accent Pro 2000, Bucharest, Romania

P60 **Novel Radiographic Testing to Analyze the Porosity and Water Absorption of Bricks**
A. Jayatilaka, Atomic Energy Board, Colombo, Sri Lanka

P61 **Gamma-Radiography: State of the Art or Unjustified Activity?**
C. Kaps, DGZfP, Berlin, Germany

P62 **Fully Automatic Optical Surface Determination in Computed Tomography**
B. Kratz, YXLON International, Hamburg, Germany

P63* **Statistical methods of an assessment of coherence of experts opinions in interpretation of radiogram**
N. Krysko, Welding and Testing, MSTU n.a. Bauman, Moscow, Russia

P64 **The Relationship Study between Penetration Thickness Ratio and the an Imaging Length in Digital Radiography**
L. Liang, China Special Equipment Insp. a. Res. Inst., Beijing, China

P65 **Dimensional Measurement of Nuclear Fuel Pellets using High Energy X-ray CT**
Y. Ohtake, The University of Tokyo, Japan

P66 **Highly-Sensitive digital Fluoroscopy systems for non-destructive testing**
V. Troitskiy, The E.O. Paton Electric Welding Institute, Kiev, Ukraine

P67 **Experience of Tangential Radiographic Inspection Application for Nuclear Power Facilities**
V. Troitskiy, The E.O. Paton Electric Welding Institute, Kiev, Ukraine

P68 **Perspectives of Development of Radiation Testing of Welded Joints**
V. Troitskiy, The E.O. Paton Electric Welding Institute, Kiev, Ukraine

P69 **Good Practice Guide to Dark Room Operations**
H. Vaughan, SAIW, Johannesburg, South Africa

P70 **Development of a Tangential Neutron Radiography System for Monitoring the Fatigue Cracks in Hydrogen Fuel Tanks**
M. Vieyra, TWI Technology Centre, Port Talbot, UK

P71 **The Application of 3D Printing and ICT Technology in Structure Research**
Y. Xiao, Tsinghua University, Beijing, China

P72 **Study of High Energy X-ray Tomography Experiment Method for Explosive Inner Defect and Density Distribution Testing**
C.f. Yang, Institute of Chemical Materials, CAEP, Mianyang, China

P73 **Study on Recognition and Measurement of Small Defects in ICT Testing**
G. Zhimin, Ordnance Science Institute of China, Ning bo, China

Surface Methods

P74 **A Comparative Study of Eddy Current Test Signals from EDM Notches and Fatigue Cracks in TiAl4V Plates**
B. Ahn, Korea Research Inst. of Standards and Science, Daejeon, South Korea

P75* **Safety and Productivity Innovations in Liquid Penetrants and Magnetic Particles Testing**
M. Cevenini, NDT Italiana, Concorezzo, Italy

P76* **Inspection of Clad Materials Using Massive Multi-Frequency Eddy Current Method**
T. Chady, West Pomeranian University, Szczecin, Poland

* Posters with Short Presentation, see page 20 – 25

P77 **Development of a system to corrosion detection using Pulsed Eddy Current**
C.B. Fagundes Do Carmo, IFBA, Salvador, Brazil

P78* **Well Integrity and Corrosion inspection of surface casings and conductors of offshore wells with the D-PEC inspection technology**
F. Gabriëls, TÜV Rheinland Sonovation, Oosterhout, Netherlands

P79 **Investigation on Features of Alternating Electromagnetic Field for Perpendicular and Parallel Cracks Detection**
J. Ge, China University of Petroleum, Qingdao, China

P80* **Motion-induced Eddy Current Testing of Composite Materials**
S. Gorges, Technische Universität Ilmenau, Germany

P81 **Investigation of Suspended Sediment Properties based on Scholte wave**
Q. Han, Ho Hai University, Chang Zhou, China

P82* **Various Approaches to Obtain an Eddy Current Signal in Case of Overheating**
K. Härtel, imq, Crimmitschau, Germany

P83* **About the Performance of Non-Multiplication Magnetization Method in a Magnetic Particle Testing**
M. Hori, Nihon Denji Sokki Co, Tachikawa-city, Tokyo, Japan

P84 **Eddy Current Array and Liquid Penetrant Testing Contrast testing on Austenite Stainless Steel Piping**
B. Hu, China Special Equipment Insp. a. Res. Inst., Beijing, China

P85 **Measurements of the Extension of the Magnetite Piles on Steam Generator Tubing with Eddy Current Techniques**
T. Jäppinen, VTT, Espoo, Finland

P86* **Demagnetization of Thick Walled Pipes**
M. Kaack, Salzgitter Mannesmann Forschung, Duisburg, Germany

P87* **Water tightness from a leak detection point of view**
R. Konwitschny, Pfeiffer Vacuum, Aßlar, Germany

P88 **Identification of the fatigue cracking of the aluminide layers on the nickel alloy with the application of the optical method ESPI and eddy current method**
D. Kukla, Polish Academy of Sciences, Warsaw, Poland

P89 **Magnetic Particle Testing using Cross- and Additional Orthogonal Magnetic Coils – Application in Components of Large Dimensions**
R. Link, Kerpen, Germany

P90 **Imaging of Local Defects of Pipes Based on Deconvolution Technology**
Q. Luo, Univ. of Electronic Science and Technology of China, Chengdu, China

P91 **Improvement of the eddy current method of nondestructive testing with pulsed mode excitation**
I. Lysenko, National Technical University of Ukraine, Kyiv, Ukraine

P92 **B-H Curves Approximations for Modelling Outputs of Non-Destructive Electromagnetic Instruments**
P. Meilland, Arcelor Mittal, Maisières-lès-Metz, France

P93* **A Pedestrian and Vehicle-Mounted System for Detecting RCF in Rail using Eddy Currents**
S. Saunders, Sperry Rail, Derby, UK

P94 **Non-destructive Research of the Friction Surface of the Brake Discs in the Aspect of Evaluation of the Braking Process**
W. Sawczuk, Poznan University of Technology, Poznan, Poland

P95 **Vacuum Tests of a very large Component: The Final Test Cryostat System for the ITER Central Solenoid Modules**
H. Scheller, Babcock Noell, Würzburg, Germany

P96 **Automated Monitoring System for Big Diameter Ropes**
D. Slesarev, INTRON PLUS, Moscow, Russia

P97 **Scanning Magnetization Devices**
V. Troitskiy, The E.O. Paton Electric Welding Institute, Kiev, Ukraine

P98 **Eddy Current Multi-Channel Module for In-line High-speed Inspection of Railroad Rails**
V. Uchanin, PROMPRYLAD, Kiev, Ukraine

P99 **PROMPRYLAD Family of Eddy Current Flaw Detectors – From Simple to more Complicated**
V. Uchanin, PROMPRYLAD, Kiev, Ukraine

P100* **Nondestructive Testing Systems with Magnetic Flux Leakage (MFL)**
S. Youssef, Fraunhofer IZFP, Saarbrücken, Germany

Terahertz/ Microwaves

P101* **Handheld Terahertz Inspection and Thickness Measurements**
S. Becker, Becker Photonik, Porta Westfalica, Germany

P102* **Multi-source inspection of fiber-reinforced materials and plastics**
T. Chady, West Pomeranian University, Szczecin, Poland

P103 **Nondestructive Testing to Accurately Measure Multilayer Coating Thickness using Time Domain Terahertz Technology**
B. Foos, First Principles, Woodbridge, USA

P104* **Terahertz Technology Approaches the Markets: Survey about the Current Developments**
S. Kremling, SKZ – Das Kunststoff-Zentrum, Würzburg, Germany

P105* **Monitoring of Drying of Cement Screed with the Help of Ultra-wideband Microwaves and Air-coupled Antennas**
M. Manavipour, Fraunhofer IZFP, Saarbrücken, Germany

Ultrasonic Applications

P106* **Interpretation of Ultrasonic Based Stave Thickness Measurement Technique for Blast Furnaces**
S. Balamurugan, Tata Steel, Jamshedpur, India

P107 **Elastic Moduli Measurements at Elevated Temperatures using Ultrasonic Waveguide Embodiments**
K. Balasubramaniam, Indian Institute of Technology Madras, Chennai, India

P108 **Development system to adjust defined stress and strain in bolts up to M36 with ultrasonic stress evaluation**
M. Becker, Fraunhofer IZFP, Saarbrücken, Germany

P109 **Local Evaluation of Stress States in Complex Geometries using Ultrasonic Runtime Measurement**
M. Becker, Fraunhofer IZFP, Saarbrücken, Germany

P110 **Ultrasonic Testing of Dissimilar Metal Joints Present in Divertor Plasma Facing Components**
K.S. Bhope, Institute for Plasma Research, Gandhinagar, India

P111 **Development, Characterization and NDT Use of Air-Coupled Capacitive Ultrasonic Transducers**
C. Biateau, Université Bordeaux, Talence, France

P112* **Innovative Technologies for Ultrasonic Phased Array Instrumentation**
J. Büchler, GE Sensing & Inspection Technologies, Hürth, Germany

P113 **Advanced and Fast Reconstruction Methods for Ultrasonic Imaging**
E. Carcreff, The Phased Array Company, West Chester, USA

P114 **Research on Ultrasonic Inspection of the Narrow gap welds of the Main Coolant Line (MCL) in Chinese Evolutionary Pressurized Reactor (CEPR) Nuclear Power Plant**
H. Chen, CGNPC Inspection Technology, Suzhou, China

P115 **An improve denosing method for Defect Detection in TOFD collected data**
D. Chi, Harbin Institute of Technology, Harbin, China

* Posters with Short Presentation, see page 20 – 25

P116 **A Development of an Array Ultrasonic Guided Wave Inspection System and Focusing Technique for CUI Inspection of Long Range Pipe**
H. Cho, ISAQ, Uiwang-si, South Korea

P117 **Support Vector Machines Applied to the Identification of Carburized HP Steels Using Ultrasonic Non-Destructive Testing**
C.B. Fagundes Do Carmo, IFBA, Salvador, Brazil

P118 **Turnkey Solution with multi-modal UT-Techniques for inspection of cladded pipes with longitudinal welds**
P. Halbritter, Olympus Deutschland, Hamburg, Germany

P119 **Ultrasonic Phased Array System with 128 Full Parallel Channels (128:128) for Fast and Modular Automated Testing**
S. Heilmann, Fraunhofer IKTS, Dresden, Germany

P120* **High Frequency Ultrasonic Systems with Frequency Ranges of 35 to 200 MHz**
W. Hillger, Ingenieurbüro Dr. Hillger, Braunschweig, Germany

P121* **Study on Sectorial Scan Angle Range for Phased Array Ultrasonic Testing in standard setting**
X. Jiang, Ho Hai University, Chang Zhou, China

P122 **Determination of Crack Tip Location by using Tip Diffraction and Geometric Calculation**
Y.-G. Kim, Korea Research Inst. of Standards and Science, Daejeon, South Korea

P123* **EMAT in Car and Space Industry: Modern Achievements and Specifics of Application**
A. Kirikov, Nordinkraft, Heimsheim, Germany

P124* **Inspection of Hidden and Curved Regions in Composite Structures using Non-contact Guided Ultrasonic Waves**
D. Koodalil, Indian Institute of Technology Madras, Chennai, India

P125* **Customized Ultrasonic Inspection Solutions for various Industrial Products**
M. Krüger, VOGT Ultrasonics, Burgwedel, Germany

P126 **UT Camera for Rapid Quantitative Inspection Performing Multi-Modal Compression and Shear Wave Imaging**
B. Lasser, Imperium, Beltsville, USA

P127 **A Study on the Focusing Charateristics of Ultrasonic Guided Waves using Finite Element Analysis**
D.H. Lee, KGS, Eumseong-gun, South Africa

P128* **Ultrasonic inspection of small pores within electron beam welded titanium alloys and their influence on the fatigue properties**
J. Liang, AVIC Beijing institute of aeronautical materials, Beijing, China

P129 **Ultrasonic Method for Determining the Thickness of TBC Deposited on Metal**
L. Lin, Dalian University of Technology, Dalian, China

P130 **COBRI – a rolling ultrasonic 3D scanner for NDT of concrete**
T. Melandso, Elop, Hamar, Norway

P131 **Application of Ultrasonic Testing of Construction and Service of Pipelines**
M. Mihovski, Institute of Mechanics, Sofia, Bulgaria

P132 **Ultrasonic Testing for General Corrosion of Metals and Alloys**
Y. Mirchev, BGSNDT, Sofia, Bulgaria

P133 **The Nondestructive Evaluation and Experimental Research on Bolt Stress by Ultrasonic Wave**
Q. Pan, Beijing Institute of Technology, Beijing, China

P134 **Ultrasound Phased Array Imaging on Curved Surface for Weld Inspection of Elbow Pipe as a Replacement for Radiographic Inspection**
C.-s. Park, Korea Research Inst. of Standards and Science, Daejeon, South Korea

P135 **Ultrasound degassing and computed tomography quality control**
T. Petkov, Österr. Gießerei-Institut, Leoben, Austria

P136* **A New Balanced TWM Laser Ultrasound Detector, the Principle and its Applications in NDT**
B. Reitinger, Recendt, Linz, Austria

P137* **Development and Validation of an Iterative Time Reversal Technique for the Inspection of Composite Structures**
D. Richard, Zetec, Quebec, Canada

P138 **Evaluation of adhesion of concrete screed to mine shaft wall by means of nondestructive acoustic methods**
L. Sadowski, Wroclaw University of Technology, Wroclaw, Poland

P139 **On Determination of Focal Laws for Linear Phased Array Probes as to the Active and Passive Element Size**
F. Schubert, Fraunhofer IKTS, Dresden, Germany

P140 **Operation and Sound Field of an Ultrasonic Biplanar-Array**
F. Schubert, Fraunhofer IKTS, Dresden, Germany

P141* **Laser ultrasound investigations on composites with optical generation from visible to infrared**
R. Seyrkammer, Recendt, Linz, Austria

P142 **The Simulation-Assisted Designing of Focal Laws for Annular Phased Array Multi-zoned Inspection of Disks**
Z. Sha, AVIC Beijing institute of aeronautical materials, Beijing, China

P143 **The Progressive Statistical Analysis Results of Performance Demonstration for Piping Welds**
H.-F. Shyu, Institute of Nuclear Energy Research, Taoyuan, Taiwan

P144 **Studies of Metal-Rubber Suspension Components of a Motor Vehicle by Ultrasonic Method**
D. Ulbrich, Poznan University of Technology, Poznan, Poland

P145 **CIVA Inspection Planning Tools for the Definition of Complex Components Proper Inspection Parameters**
A. Vanhoye, CEA, Gif-sur-Yvette, France

P146* **PROline – ready for the next Industrial Revolution (Industry 4.0) and SCADA**
G. Vogt, VOGT Ultrasonics, Burgwedel, Germany

P147* **Improved Inspection Quality and Efficiency Due to Advancements in Conventional Ultrasonic Instrument Development**
G. Von Zuben, Olympus Scientific Solutions Americas, Waltham, USA

P148 **New Possibilities in Ultrasound Phased Array Testing by the use of Biplanar Array Technology**
S. Walter, Fraunhofer IKTS, Dresden, Germany

P149 **A wave propagation model for simultaneous determination of thickness and sound velocity of layered structures**
M. Wolf, TU Dresden, Germany

P150 **PoD Analysis of Phased Array and Conventional Ultrasonic Techniques**
H.I. Yelbay, Middle East Technical University, Ankara, Turkey

P151* **An Innovative Scanning Solution for Corrosion Mapping**
F. Zottig, Zetec, Quebec, Canada

Other Applications

P152 **Organizational Negligence and How to Avoid it**
R. Alijah, Kiwa International Cert, Hamburg, Germany

P153 **How to Assure Compliance of Health, Safety and Environmental Issues to Customers?**
R. Alijah, Kiwa International Cert, Hamburg, Germany

P154 **Scanning From Heating: 3D Digitization and NDT**
M. Belkacemi, Laboratoire d'Electronique et d'Informatique de l'Image, Le Creusot, France

P155 **Determination of Biomass in Biotechnological Processes by Laser-Speckle-Photometry**
B. Bendjus, Fraunhofer IKTS, Dresden, Germany

P156* **Ultra Sniffer – New Leak Detection Method**
R. Brockmann, Greifswald, Germany

* Posters with Short Presentation, see page 20 – 25

P157 **Manufacturing of Reference Defects for NDT Using Low-Energy EDM**
R. Casperson, BAM, Berlin, Germany

P158 **Comparison of Non-Destructive and Destructive Examinations in Today´s Inspection Practices**
H. Chimezie, National Centre for NDT, Effurun, Nigeria

P159* **A Reliable and Tracer Gas Independent Leak Detector for Food Packages**
S. Decker, INFICON, Köln, Germany

P160 **What Makes a Good NDT Online Exhibition**
R. Diederichs, NDT.net, Bad Breisig, Germany

P161 **Technical Diagnostics – The Basis of Safety of Industrial Installations**
A. Efimov, JSC RII „Spectrum", Moscow, Russia

P162 **Novel Spectral Kurtosis Technology for Adaptive Vibration Condition Monitoring of Multi Stage Gearboxes**
L. Gelman, Cranfield University, UK

P163* **Balancing Productivity and Product Quality in Welding, Revealing Interacting Organisational Cornerstones**
P. Hammersberg, Chalmers Univ. of Technology, Göteborg, Sweden

P164 **Future of Nondestructive Testing**
N. Jain, Frost & Sullivan, India

P165* **NDT Practical Examinations / Assessments / Evaluations**
H. Jansen, SAIW, Johannesburg, South Africa

P166 **Evaluation of POD Effect by Steam Generator Chemical Cleaning**
K. Joo, Central Research Institute, Korea Hydro & Nuclear Power, Daejeon, South Korea

P167 **Non-destructive Testing of Galvanic Coatings on Parts of Liquid Rocket Engines**
V. Kaloshin, NPO Energomash, Khimky, Russia

P168 **The modular concept of training, advanced training and certification personnel NDT for rail transport Russia**
V. Konshina, Petersburg State Transport University, St. Petersburg, Russia

P169 **Using Adaptive Filtration in digital magnetodynamic signal processing**
D. Kosobokov, Petersburg State Transport University, St. Petersburg, Russia

P170* **CURe MODERN – French-German Infrastructure Inspection, Urban and Regional Planning**
J.H. Kurz, DB Systemtechnik, Brandenburg-Kirchmöser, Germany

P171* **Leak Test of Test Parts with Pressure Compensation Elements using the Test Medium Compressed Air**
J. Lapsien, CETA Testsysteme, Hilden, Germany

P172 **Using Hilbert transform for signal processing in Mechanical impedance analysis**
I. Lysenko, National Technical University of Ukraine, Kyiv, Ukraine

P173 **The Real-Time Quantitative and Display Method for Incomplete Defect MFL Signals**
L. Peng, Tsinghua University, Beijing, China

P174 **Non-destructive tests for damage analysis**
R. Schaar, Allianz Risk Consulting, München, Germany

P175 **Helium Leak Testing of Dangerous Goods Packagings**
O. Seidler, BAM, Berlin, Germany

P176 **The Use of Non-Destructive Methods for Evaluation of Agricultural Machinery in Under Field Conditions**
J. Selech, Poznan University, Poznan, Poland

P177 **NDT Application in Nuclear Fuel Industry**
J.C. Shin, KEPCO, Daejeon, South Korea

P178 **Current based Normalized Tripple Covariance as a beraings diagnostic feature in induction motor**
L. Swedrowski, Gdansk University of Technology, Gdansk, Poland

POSTERS

P179 **Improvement of Quality of NDT Personnel Training: Opinion of Ukrainian Society for NDT**
V. Troitskiy, The E.O. Paton Electric Welding Institute, Kiev, Ukraine

P180 **To what Extent may we Accept Manufacturing-related Microscopic Defects in Cast Steel?**
I. Veile, Fraunhofer IZFP, Saarbrücken, Germany

P181 **Applications of Wireless Remote Collaboration for Nondestructive Testing**
T. Ward, General Electric, Skaneateles, USA

P182 **Quantitative Analysis of Moisture in Composites using an Ultrashort Echotime Sequence on a 3-Tesla Whole-Body MRI System**
A.A.E. Zimmermann, University Hospital Tübingen, Germany

INTERACTIVE PRESENTATIONS

The interactive presentations will be presented during the poster and exhibition evening on Monday, 13 June 2016, 18:30 h – 21:00 h.

IP1 **Interactive Education in Eddy Currents**
G. Mook, Otto-von-Guericke-Universität Magdeburg, Germany

IP2 **Software Assisted Design and Evaluation of Complex UT-testing Configurations, Suiting the Requirements of International Standards for Single Probe, PAUT and TOFD Techniques**
M. Maass, testsinn, Jesteburg, Germany