SESSIONE AM.1: ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

ID102, *AI-Powered Defect Recognition System for Magnetic Particle Inspection: Applications and Solutions in Automotive Component Testing*, Yang-Chieh Lin, Wei-Chia Cheng, Tsung-Chi Tang, Posheng Chiang

ID126, *Quantum k-Nearest Neighbors for Accelerated and Robust Damage Detection in Railway Bridge Structural Health Monitoring: A Case Study on KW51 Bridge*, Haniye Ghafouri Rouzbahani, Mohammad Omidi Mamaghani, Ferdinand Pospischil

ID211, *Modeling and Reconstruction of Air-Coupled Ultrasonic Signals via CNNs*, Héctor Calás

ID239, *Advancement of Eddy Current Testing for Ferromagnetic Heat Exchanger Tubes using a Multi-Coil Probe and AI*, Sakura Handa, Kazuaki Yoshie, Kazuki Karimai, Yoshihisa Maruyama

ID253, *Towards Fully Automated Interpretation of Ultrasonic NDE Data for Carbon Fibre Reinforced Polymers using Multi-Model Machine Learning Frameworks*, Ehsan Mohseni, Vedran Tunukovic, Shaun McKnight, Gareth Pierce, Gordon Dobie, Charles MacLeod, Randika K.W Vithanage, Sandy Cochran, Tom O'Hare

ID274, *Generative AI in NDE: Connecting Human Expertise and Data for Enhanced Inspection Support*, Marco Induti, Carlo Romito, Stefano Cipolla, Oliver von Trzebiatowski, P. Goyal

ID318, *Analyses of Advanced Bio-Composites using Acoustic Emission and Machine Learning*, Markku Tiitta, Valtteri Tiitta, Wen Jiang, Kirsi Immonen, Faisan Asad, Reijo Lappalainen, Laura Tomppo

ID388, *An Explainable and Standards-Aware AI Framework for Automated Ultrasonic Inspection using Volumetric Learning, Compliance Encoding, and RAG-Based Reporting*, Vishwesh Vishwesh, David Böttger

ID441, *Real-Time Stiffness Characterization of Complex-Shaped Metal Parts by Vibrational Testing and Machine Learning*, Adil Han Orta, Sylvain Chabanet, Mathias Kersemans

ID491, *Assisted Data Analysis for Nondestructive Evaluation*, Eric Lindgren

ID566, *Fostering Collaboration and Enabling Development in AI4NDE: Available Opportunities and Activities*, Thiago Seuaciuc Osorio

ID715, *YOLO-Based Detection of Small Inclusions in Radiographies of Composite Parts*, Ilyas El Younousi, Anne-Laure Mealier, Axel Lecoeuvre, Nicolas Griselin

ID753, *AI-Enhanced X-Ray Tomography for Quantitative Crack Characterization in Industrial Materials*, Sofiane Terzi, Duy Nguyen, Dajla Neffati, Awen Autret, Barbara Fayard

ID762, *Deep Learning-Based Spatial Coherence Estimation for Ultrasonic NDT*, Gabriel O. Vasconcellos, Matheus F. Dário, Tatiana de A. Prado, Daniel R. Pipa

ID768, *Machine Learning–Driven Flaw Detection for Ultrasonic Pipe Inspections with Acoustic Lens*, Thiago E. Kalid, André E. Lazzaretti, Tatiana de A. Prado, Gustavo P. Pires, Daniel R. Pipa, Thiago A. R. Passarin

ID867, *Edge AI Enabled In-Situ Multi-Modal NDE Framework using Computer Vision and Eddy Current Testing*, Lei Peng, Zhibo Zhang, Na Zhang, Yiming Deng

ID878, *Towards Training-Free Surface Detection and Characterization for Metal Addictive Manufacturing with Vision Foundation Model*, Chaoyu Dong, Hwee Ping Ng, Fang Cheng, Andrew Malcolm

ID889, *AI for Manual Ultrasonic Inspection*, Oskari Jessen-Juhler, Iikka Virkkunen, Thiago Seuaciuc-Osorio

SESSIONE AM.2

ID142, *Automated NDT Inspection for Spot Welds in Collaborative Mode and with AI Driven Software*, Christian Wagner, L. Baumgart, S. Klink

ID161, *Development of NDT Methods and Three-Dimensional Diagnostic Techniques with a Robotic Automation*, Paola Carlorosi

ID200, *Inline Ultrasonics Measurements of Pipes and Tubes: From an Inspection Machine to a Quality Tool*, Helmut Breidenbach, Stephan Falter, Renjith Cheruthazhathu Ravindran Nair, Thomas Würschig

ID204, *PAUT Testing System for Large, Seamlessly Rolled Rings*, Wolfram Deutsch, Jürgen Närmann, Jörn Bolten, Timur Sayfullaev, Marius Weiler

ID348, *Challenges for Automated Ultrasonic Testing of Forged Parts with Immersion Technique*, Thomas Rehfeldt, Alexander Köck, Andreas Weber, Sandra Motschiedler, Jeanne Bargsten

ID377, *Implementation of a Semi-Automated Phased-Array Mapping Solution for Flow Accelerated Corrosion Monitoring*, Eliot Chaize, Grégoire Benoist, Valentin Perret, Guillaume Neau

ID394, *Adaptive Laser-Induced Phased Arrays for Volumetric Imaging of Defects in 3D Curved Surfaces*, Rafael Fuentes-Dominguez, Martin Todd, Richard J. Smith, Matt Clark

ID460, *Climbing Robots: A New Era for NDT on Tall Structures*, Jack Cornes, Jean-Marie Henault

ID475, *Remote-Support Technology for Data Interpretation and Services in Automated UT: The Autosonic™ Use Case*, Erik Stara, Luca Scaccabarozzi, Oliver von Trzebiatowski, Marco Induti

ID499, *Developing an Adaptive Testbed for Robotic Inspection*, Liam Murray, Tyler Lesthaeghe, Matthew Cherry, Andrew Gillman, Sean Donegan, LoriAnne Groo

ID613, *Advanced Automated PAUT Systems Utilizing Special Immersion Testing Techniques*, Radek Salač

ID614, *Advanced Automated Ultrasonic Systems Utilizing Modern Technologies*, Radek Salač

ID636, *Robust Virtual Encoder: using Ultrasound Data for Compensation of Depth Variations in Camera-Based Odometry*, Matheus F. Dário, Fernando H. R. Caetano, Daniel Santin, Henrique M. Guerra, Huriel A. Dos Santos, Thiago E. Kalid, Tatiana de A. Prado, Gustavo P. Pires, Thiago A. R. Passarin

ID645, *A Hybrid Phased Array Ultrasonic Testing Methodology for A1106 High Manganese Steel using DMA Longitudinal and Creep Wave Techniques*, Sajeesh Kumar Babu, Thiruvenkadam Sugumaran

ID764, *Advances in Ultrasonic Corrosion Mapping Through Integrated Acquisition Architectures*, Federico Zottig, Cyril Thibault

ID775, *Performance Evaluation of Ultrasonic Sparse Array Networks – Implications for Robotic Inspection of Large Areas*, Bruce W. Drinkwater, Anthony J. Croxford, Xudong Niu, Michael Todd

ID861, *Development and Validation of an Eddy Current Instrumented Pipeline PIG for Fatigue Crack Detection in Girth Welds of Clad Pipes*, Lucas B. Campos, Rafael W. F. dos Santos, Lucas M. C. da Silva, Diogo B. C. Lima, Miguel A. Freitas, Cesar G. Camerini, Gabriela R. Pereira

ID930, *Multi-Robot Computed Tomography Platform for Adaptive Non-Destructive Evaluation*, Josef Uher, Jana Zálišová, Jakub Veselý, Michal Pech, Filip Dominec

SESSIONE AM.3

ID 272, *Accelerated Machine Learning-Based High Volume Data Interpretation for Ultrasonic Inline Pipe Inspections*, Hongyu You, Mehrab Zamanian, Chris Peyton, Alistair Lawley, Vedran Tunukovic, Nick Bettley, Ehsan Mohseni, Gordon Dobie

ID 321, *Unsupervised Defect Detection in Industrial Images with Conformal Anomaly Detection and VAEs*, Flora Estermann, Philippe Guy, Philippe Delachartre, Valérie Kaftandjian

ID 410, *Study and Modelling of Non-Linear Effects for Acoustic Quality Monitoring of an Ultrasonic Welding Process*, Timo Reindl, Phi-Long Chung, Christian Bonten, Marc Kreutzbruck

ID 449, *Optimizing Tank Integrity Management: Advanced Data-Driven Approaches for Inspection Interval Optimization*, Andrew Simpson, Matthew Boat

ID 451, *Multiphysics Monitoring and NDT of Wire Arc Additive Manufacturing*, Douglas Serrati, André Ramalho, Nuno Mendes, Miguel A. Machado, Pedro Vieira, Rodolfo Oliveira, João P. Oliveira, Telmo G. Santos

ID 665, *Real-Time Adaptive Imaging Applied from the Weld Bead*, Nans Laroche, Sylvain Deutsch

ID 666, *Adaptive Imaging and Double Profilometry for Thickness Measurement of Complex Components*, Nans Laroche, Sylvain Deutsch

ID 706, *Self Learning Anomaly Detection on a Multidimensional Feature Space*, Oguzhan Sanliturk, Kevin Schmitz

ID 760, *Suppression of Geometrical Artifacts from Acoustic Lenses through Low-Rank Approximation*, Vinicius L. Costa, Thiago E. Kalid, Matheus F. Dário, Tatiana de A. Prado, Gustavo P. Pires, Daniel R. Pipa, Thiago A. R. Passarin

ID 950, *Dual-Sensor Electromagnetic Non-Destructive Testing for Material State Assessment of Different Quenched and Tempered Steels in the Context of Circular Production*, Mehdi Khabou, Volker Schulze, Stefan Dietrich

SESSIONE AM.4

ID 106, *Optimizing the Use of Developer “a”, “b”, “c” and “d” in Fluorescent Penetrant Testing: Performance, Limits and Critical Issues in the Aeronautical Sector*, Massimo Capriolo, Joseph De Francesco, Gaetano Buonocore, Andrea Macchi, Davide Spinozzi, A. Girolami, Fulvio Radaelli

ID 122, *Parameters of the Magnetic Hysteresis Loop as Information Features for Non-Destructive Evaluation of the Mechanical Characteristics and Hydrogen Concentration of Ferrous Steels,* Valentyn Uchanin, Giuseppe Nardoni, Andriy Syrotyuk, Orest Ostash, Vitaliy Ovsyanykov

ID 170, *On the Use of OCLC Emats to Detect Notches and Cracks in Metal Plates*, Matthew Morrissey, Paddy Caskey, Pouyan Khalili, Frederic Cegla

ID 215, *Challenges in Ultrasonic NDT/NDE of Small-Scale Structural Defects in Metal Pipelines of the Energy Sector*, Renaldas Raišutis, Vykintas Samaitis, Audrius Stravinskas, Egidijus Žukauskas, Vaidotas Cicėnas

ID 236, *Suitability of Different Non-Destructive Techniques for Physical and Mechanical Characterization of the Wood used in Construction*, Narintsoa Ranaivomanana, Jean-Paul Balayssac, Bhanu Kumar Srirangarajuaplli

ID 256, *Electrical Resistance-Based Fatigue Damage Evaluation in Full Forward Rod Extruded 16mncrs5 Steel*, Lukas Maximilian Sauer, Lars Andree Lingnau, Frank Walther

ID 285, *Laser Ultrasound Combined with Image-Based Analysis for Simultaneous Evaluation of Sound Velocity and Thickness*, Hongjun Sun, Keita Ozaki

ID 300, *Ultrasonic Probes for Non-Destructive Testing Without Lead-Based Piezoceramics?*, Andreas Mück, Mark Achtenberg, Martin Fuchs

ID 334, *Spatially Resolved Acoustic Spectroscopy: from Hard to Soft Materials Elastic Characterisation*, Rafael Fuentes-Dominguez, Samuel Karet, Salvatore La Cavera III, Alan McIntyre, Richard J. Smith

ID 343, *Tomographic Reconstruction of the Subsurface Grain Structures in Polycrystalline Materials using Full-Waveform Inversion*, Fangyuan Wan, Jie Zhang, Anthony J. Mulholland

ID 345, *Application of NDT Magnetic Property (Coercivity) Measuring Method for Indicating Mechanical State of Steel after Induction Pipe Bending*, Roman Solomakha, Connor O'Shea, Hennadii Bezlyudko

ID 360, *Detecting α’-Martensite in 316L Austenitic Steels with Magnetic NDT Technologies*, Hélène Petitpré, Yves Armand Tene Deffo, Baptiste Vindolet, Daniella Guedes-Sales, Kerian Wegerhoff, Benjamin Ducharne, Thomas Hingant

ID 367, *CT-Based Investigation of Defect Evolution in Polymeric Components under Cyclic Mechanical and Hydrogen Pressure Loading*, Sarah Heupl, Julia Thalhammer, Bernice Mills, Menon Nalini, April Nissen, Johann Kastner

ID 383, *Effect of Plastic Strain and Reloading Stress on the Acoustic Birefringence of a Martensitic Steel*, Zakariae Maazaz, Fabien Lefevre

ID 389*, Non-Destructive Orientation and Elasticity Determination of the Gibeon Meteorite using Spatially Resolved Acoustic Spectroscopy*, Wenqi Li, Matt Clark, Richard J. Smith

ID 420, *Resonant Ultrasound Characterization of Materials in the ECOBALLIFE Project*, Florian Le Bourdais, Guillemette Ribay, Marie-Bénédicte Jacques

ID 446, *In-Situ Electromagnetic Monitoring of Annealing Behaviour in Interstitial-Free Steel using a High-Temperature Furnace Rig*, Lei (Frank) Zhou, Mohsen A. Jolfaei, John Wilson, Carl Slater, Claire Davis, Anthony Peyton

ID 488, *Characterization of Microstructured Steels: from Bulk Waves to Guided Waves Radiation*, Jordan Barras, Vincent Dorval, Nicolas Leymarie, Alexandre Imperiale, Edouard Demaldent

ID 501, *Analysis of Chemical Composition Effect on Electromagnetic Sensor Response during Steel Phase Transformation on the Run Out Table*, Esra Kaderli, Lei Zhou, Carl Slater, Ian Gibson, Claire Davis

ID 512, *High-Resolution 3D Ultrasonic Imaging of Defects with Various Shapes using Piezoelectric and Laser Ultrasonic System (PLUS)*, Yoshikazu Ohara, Yuto Fujikawa, Taiyo Sugi, Atsuhiro Hibi, Mitsuru Miyamoto, Takeyuki Okamura, Toshiyuki Suzuma

ID 524, *Simultaneous Estimation of Multiple Parameters of Metallic Samples via Eddy Current Testing*, Alessandro Sardellitti, Vincenzo Mottola, Filippo Milano, Luigi Ferrigno, Antonello Tamburrino, Marco Laracca

ID 544, *Ceramic Coil Design for High Temperature EM Measurements in a Differential Scanning Calorimeter*, John Wilson, Mohsen Jolfaei, Adam Fletcher, Lei Zhou, Carl Slater, Claire Davis, Anthony Peyton

ID 556, *Enhancing Commercial Differential Scanning Calorimetry (DSC) with Embedded Electromagnetic Sensing for In-Situ Monitoring of Tempering Martensite*, Mohsen A. Jolfaei, John W. Wilson, Adam D. Fletcher, Frank Zhou, Carl Slater, Claire Davis, Anthony J. Peyton

ID 655, *Ultrasonic Velocity–Based Non-Destructive Characterization of Heat-Treated Additively Manufactured 18Ni300 Maraging Steel*, Ibrahim Aydin, C. Hakan Gür

ID 781, *Understanding the Effects of Crystallographic Texture and Pore Morphology on Ultrasound Wave Propagation in Laser Powder Bed Fused 316L Stainless-Steel*, Antonio Brozicevic, Paul Hooper, Bo Lan

ID 801, *Magnetic Hysteresis Parameters as Non-Destructive Indicators of Microstructure in DP600 Steel after Controlled Thermal Cycles*, Ane Martinez-de-Guerenũ, Mikel Cuenca-Ariza, Iosu Aramendi, Amaia Iza-Mendia, Denis Jorge-Badiola

ID 819*, FPGA-Based Non-Destructive Measurement System for Fast and Accurate Estimation of Thickness and Electrical Conductivity of Metallic Plates*, Simone Palazzo, Vincenzo Mottola, Giovanni Canale Parola, Luigi Ferrigno, Alessandro Sardellitti, Antonello Tamburrino, Francesco Velardi, Annunziata Sanseverino

ID 860, *Acoustic Emission Monitoring of Hydration Processes in Cementitious Suspensions and Systems*, Eleni Korda, Dimitrios Aggelis, John L. Provis

ID 890*, Buried Corrosion Imaging in Magnetic Plates by Electrical Resistance Tomography*, Vincenzo Mottola, Joseph Corcoran, Luigi Ferrigno, Peter B. Nagy, Antonello Tamburrino

ID 922, *Monitoring and Control of Hydration Heat Development in Massive Concrete Pours*, Carol Li Calzi

ID 937, *Acoustic Emission Characteristics of Damage Mechanisms in Carbon Fiber Reinforced Polymer Materials*, Keuntae Park, Sangwoo Kim

SESSIONE AM.5

ID113, *AI-Based Signal Analysis and Flaw Detection for Eddy Current Testing of Heat Exchanger Tubes*, Ryohei Fujita, Misaki Sanokawa, Shota Yamabe

ID177, *Machine Learning-Based Classification of Reclaimed Structural Steel Using Non-Destructive Testing*, Shagea Alqawzai, Thi Qui Nguyen, Mingshan Zhao, Linyun Zhang

ID189, *Depth and Height Measurement of Subsurface Defects in Non-Ferromagnetic Metallic Materials with Eddy Current Testing Utilizing Machine Learning*, Maria Poulaki, Vyron Drosos, Nikolaos Poulakis, Apostolos Kotouzas

ID328, *Automated Borescope Inspection with AI Support for Visual Testing*, Marco Induti, Massimiliano Tinari, Manuel Yersin, Erik Stara, Luca Scaccabarozzi

ID447, *Non-Destructive Electromagnetic Sensor Array for Spatially Resolved Phase Transformation Monitoring in Steel Narrow Strip and Rod Processing*, Fanfu Wu, Lei Zhou, Shaun Hobson, Matthew Green, Claire Davis

ID541, *Democratising Advanced UT: A Workflow Centric Approach for NDT 4.0*, Paul Hillman, Dominic Giguere, Jerome Poirier

ID548, *Software Assisted Analysis for AUT Data of Pipeline Girth Welds*, Paul Hilmann, Daniel Richard, Johan Berlanger, Dominic Marois

ID695, *GPU-Accelerated Phased-Array Ultrasound Scanner for Integration of AI/ML Methods*, Marcin Lewandowski, Mateusz Walczak, Piotr Jarosik, Piotr Karwat

SESSIONE AM.6

ID201, *Numerical Evaluation of High-Resolution Ultrasonic Imaging Algorithms for NDT Applications*, Mario Certo

ID222, *Numerical Approach in the Design of Magnetic Particle Inspection Devices*, Michele La Bianca, Fontò Eleonora, Luca Giaccone, Fabio Freschi, Aldo Canova

ID288, *Efficient Local Finite Element Simulation of Ultrasonic NDE with Application to Inspection Qualification*, Paul D. Wilcox, Nachman Malkiel, Anthony J. Croxford

ID335, *Random Walk Modelling of Hydrogen-induced Defects for Ultrasonic Response Analysis*, Liuyu Chang, Bruce Drinkwater, Jie Zhang

ID398, *Modelling and Simulation Use in X-ray Computed Tomography for NDT*, Marius Costin, Victor Bussy, Julie Escoda, Hermine Lemaire, Jitendra Singh Rathore, Adrien Stolidi, Anthony Touron

ID429, *Modelling Study of Surface Treatment on Eddy Current Testing: Influence of Geometry*, Edouard Demaldent, Audrey Vigneron, Olivier Ghibaudo, Alexandre Corazza, Julien Banchet

ID476, *Ultrasonic Wave Propagation Analyses in Cast Stainless Steel using Solidification Grain Structure Models Predicted by Cellular Automaton Approach*, Masaki Nagai, Yukinobu Natsume, Shan Lin, Kazuyuki Nakahata

ID496, *Consolidating Reliability of Guided Wave SHM through Simulation: Application on a Bolted Panel with Static Load*, Edouard Demaldent, Alexandre Imperiale, Arnaud Recoquillay, Pierre Calmon, Aurélien Rautureau, Paul Swindell

ID618, *Optimising Synthetic Data for Machine Learning Applications to Surface-Breaking Thermal Fatigue Cracks*, James Gaffney, Thomas Beckingham, Daniel Colquitt, Will Daniels, Stewart Haslinger

ID637, *Benefits of New Finite Elements Models Available for Ultrasonic NDE Simulations*, Fabrice Fourcher, Jerome Dudous, Nicolas Leymarie, Edouard Demaldent, Stéphane Le Berre, Edward Ginzel

ID682, *Application of Full Waveform Inversion to Ultrasonic Data*, Alina Suchkova, Ernst Niederleithinger

ID733, *Complex Surfaces Profilometry by Splines Estimation*, Janice Estelle Ayisah, Nans Laroche, Clément Huneau, Sébastien Bourguignon, Jérôme Idier, Ewen Carcreff

ID763, *mini-auspex: a Python Library for Ultrasonic Data Import, Post-Processing and Imaging*, Giovanni A. Guarneri, Vinicius Pegorini, Daniel R. Pipa, Thiago E. Kalid, Tatiana de A. Prado, Gustavo P. Pires, Thiago A. R. Passarin

ID765, *Modeling and Removal of Electronic Crosstalk Effects in Ultrasound Signals via Deconvolution*, Fabio Z. Y. Wang, Tatiana de A. Prado, Thiago E. Kalid, Gustavo P. Pires, Glauber Brante, Daniel R. Pipa, Thiago A. R. Passarin

ID770, *Vibration Analysis of a Structure with Plan Irregularity Using the Frequency Domain Decomposition Method*, Kevin Ortiz, Manuel Aspilcueta, Licelly Costilla

ID782, *Computational Modeling Parameters to Consider when Reproducing GPR Data as it Applies to Bridge Decks*, Nicole Martino, Ken Maser, Ralf Birken, Camila Wendland

ID855, *Digital Twins of Common Ultrasonic NDT Inspections Verified by Photoelastic Visualizations*, Paul Holloway, Lars Gebraad, Chris Udell, Christian Boehm

ID899, *Near- and Far-Field Delamination Monitoring in Metal–Composites using Acoustic–Active Fiber-Optic Sensing: A Numerical Framework*, Saurabh Gupta, Lalita Udpa, Mahmood Haq, Yiming Deng

SESSIONE AM.7

ID125, *New Method for Steel Coupon Development May Lead to a Standard for Residual Stress Monitoring*, Evangelos Hristoforou

ID152, *Early Corrosion Detection in Jetty Pipelines using Automated Guided Wave Area Monitoring*, Keith Vine, Brian Pavlakovic, Thomas Vogt

ID169, *Rapid Defect Detection in Composite Laminates using One-Dimensional Guided Waves and Unsupervised Convolutional Autoencoders*, Shain Azadi, Yoji Okabe, Valter Carvelli

ID199, *Advancing External EMAT-Based Tank-Floor Inspection through SH Waves and Machine Learning Analytics*, Kaleeswaran Balasubramaniam, Conrad Kummeler, Álvaro Pallarés Bejarano

ID308, *Real-Time Subsea Cable Motion Monitoring via SSTDR*, Andrew Di Battista, Nathan Cartlidge, Tim Whitmore

ID392, *Distributed Acoustic Sensing (DAS) for the Monitoring of Infrastructure – Challenges and Limitations*, Bianca Weihnacht, Mario Kuehmstedt, Jörn Augustin, Mareike Stephan, Tobias Gaul, Lili Tautz, Robert Neubeck

ID425, *Dynamic Monitoring of Bridges and Viaducts*, Giorgio Sforza

ID479, *Damage Localization in a Rod by Utilization of Guided Wave Mode Separation*, Anjaly Jayakumar Pillai, Pawel Kudela, Maciej Radzienski, Rohan Soman, Tomasz Wandowski

ID528, *Integration of a Guided Wave-Based SHM System in a Full-Scale Structural Test*, Maria Moix-Bonet, Tim Behrens, Benjamin Eckstein, Daniel Schmidt, Peter Wierach

ID531, *Development of a MEMS Energy-Harvesting Sensor for Corrosion Monitoring in RC Infrastructure*, Nicharin Nithimethaporn, Katsufumi Hashimoto, Makoto Iwasaki, Riko IInuma, Hiroyuki Mitsuya

ID596, *Acoustic Emission Monitoring of Corrosion under Thermal Fluctuations*, Camilla Bahia Larocca, Denis Bogomolov, Mikhail Prokofyev, Armin Proyer, Alessandro Marzani, Luca De Marchi

ID678, *Crack Luminescence Process - Early Fatigue Crack Detection by Riluminati*, Roman Dörn

ID691, *Non-Destructive Determination of Crack Size and Crack Growth in Butt Welds of Wind Turbines: AE, PAUT and ET in Vibration Fatigue Tests*, Sebastian Barton, René Gansel, Lea Feld, Mareike Collmann, Hans Jürgen Maier

ID921, *Beyond Sensor Calibration: An Evolutionary Approach to Dynamic Structural Monitoring*, Giuseppe Mugnos, Elio Lo Giudice

ID924, *An Integrated Approach to the Structural Assessment of Steel Guyed Towers: The Case of the RAI Tower in Caltanissetta*, Elio Lo Giudice, Giuseppe Navarra, Giuseppe Mugnos, Giuseppe Catanzaro