

# X<sup>th</sup> INTERNATIONAL WORKSHOP NDT in Progress

Hotel Meritum, Prague, Czech Republic

October 7 – 9, 2019

## PRELIMINARY PROGRAM

**Monday, 7 October 2019**

<b>Monday, 7 October 2019</b>	
09.00 - 17.00	<i>Registration</i>
10:00 - 10:30	Workshop opening
10:30 - 12:30	<b>Session 1 – chair: Z. Prevorovsky</b>
10:30	<b>Jaroslav JOCH</b> USE OF STRUCTURAL HEALTH MONITORING IN NUCLEAR APPLICATIONS
11:00	<b>Zdenek PREVOROVSKY</b> CONTINUOUS AE SOURCE LOCATION IN PIPELINE USING TIME REVERSAL SIGNAL PROCESSING
11:30	<b>Milan CHLADA</b> CONTINUOUS ACOUSTIC EMISSION MONITORING BY DATA STREAMING OSCILLOSCOPES
12:00	<b>Karel HAJEK</b> INCREASED ACCURACY OF SPECTRAL ANALYSIS IN NDT
12:30 - 13:30	<i>Lunch, preparing posters</i>
13:30 - 16:00	<b>Session 2 – chair: A. Savin</b>
13:30	<b>Mirosław WITOS</b> MAGNETIC STATE OBSERVER IN NDT AND SHM STUDIES
14:00	<b>Takumi KOBARA</b> OPTIMIZATION OF APPLIED MAGNETIC FIELD METHODS FOR VARIOUS SHAPE DEFECTS IN EDDY CURRENT TESTING USING MAGNETO RESISTIVE SENSOR
14:30	<b>Yuto GODA</b> MAGNETIC NDE SYSTEM FOR DETECTION OF CRACK IN STEEL DECK WITH HIGH LIFT-OFF USING SECONDARY DIFFERENTIAL DETECTION COIL
15:00	<b>Shunki WAKABAYASHI</b> OPTIMIZATION IN THE DETECTION PERFORMANCE OF EXTREMELY LOW-FREQUENCY EDDY CURRENT TESTING FOR APPLICATION TO VARIOUS SHAPES OF CORROSION DEFECTS IN THE ACTUAL SOCIAL INFRASTRUCTURE
15:30	<b>Adriana SAVIN</b> ARCAN DEVICE EMPLOYED IN CFRP TESTING
16:00 - 16:30	<i>Coffee break</i>
16:30 - 17:40	<b>Session 3 – Posters – chair: M. Witos</b>
16:30	<b>Icaro V. M. MOREIRA</b> BERGEN HIGH - SPEED GAMMA - RAY TOMOGRAPHY VS. GEANT4 SIMULATED DATA: A COMPARISON STUDY
16:40	<b>Tristan JULIEN</b> DESIGN OF AN EXPERIMENTAL MOCKUP TO STUDY THE POSSIBILITIES OF ACOUSTIC MEASUREMENTS FOR NUCLEAR REACTOR FUEL ELEMENT TESTING
16:50	<b>Jan KOBER</b> VERIFICATION OF DIGITAL TWIN CONCEPT FOR TIME REVERSAL ANALYSIS
17:00	<b>Maximilian TRAPP</b> STRUCTURAL ANOMALY IMAGING IN ALUMINIUM AND CONCRETE SPECIMEN USING SEISMIC MEASUREMENTS
17:10	<b>Dagmar FAKTOROVA</b> IMPROVEMENT OF MICROWAVE SENSING OF WOODS USING METAMATERIALS STRUCTURES
17:20	<b>Josef STRYK</b> AN INITIAL INVESTIGATION ON THE POTENTIAL APPLICABILITY OF ULTRASONIC TESTING TO ASSESS EFFECTS OF CORROSION ON LINEAR AND NONLINEAR ELASTIC BEHAVIOUR OF PRE-STRESSING STEEL STRANDS
17:30	<b>Pawel MAZUREK</b> INFLUENCE OF PRE-MAGNETIZATION AND DEMAGNETIZATION OF A STEEL WIRE FOR ITS DIAGNOSTIC SIGNAL

## Tuesday, 8 October 2019

9:00 - 12:30	<i>Registration</i>
9:00 - 10:30	<b>Session 4 – chair: S. Hirsekorn</b>
09:00	<b>Sigrun HIRSEKORN</b> SIMULATION OF ULTRASONIC BACKSCATTERING SIGNALS IN POLYCRYSTALLINE MATERIALS
09:30	<b>Tomas GRABEC</b> MODELING OF GRAIN-BOUNDARY SCATTERING OF ULTRASONIC WAVES FOR CHARACTERIZATION OF GRAIN-SIZE DISTRIBUTION
10:00	<b>Pavel STANEK</b> EXPERIMENTAL SETUP FOR MPI SENSITIVITY MEASUREMENTS: FIRST RESULTS
10:30 - 11:00	<i>Coffee break</i>
11:00 - 13:00	<b>Session 5 – chair: P. Hora</b>
11:00	<b>Dalibor LUKAS</b> A UNIFORM PARALLEL FRAMEWORK TO LARGE-SCALE SIMULATIONS OF 3D WAVE-TYPE EQUATIONS
11:30	<b>Michal MRACKO</b> USING COMPUTATIONAL TIME REVERSAL METHOD FOR LOCALIZATION OF FORMING AND PROPAGATING CRACK
12:00	<b>Radovan ZEMAN</b> APPLICATION OF IMAGE SOURCE METHOD IN TIME REVERSAL OF ELASTIC WAVES
12:30	<b>Petr HORA</b> ACOUSTIC EMISSION SOURCES FROM FAST DISLOCATION MOTION
13:00 - 14:00	<i>Lunch</i>
14:00 - 16:00	<b>Session 6 – chair: J. Krofta</b>
14:00	<b>Michaela JANOVSKA</b> CHARACTERIZATION OF BONDING QUALITY OF COLD-SPRAYED DEPOSITS BY RESONANT ULTRASOUND SPECTROSCOPY
14:30	<b>Adriana SAVIN</b> INFLUENCE OF RARE EARTHS ON BIODEGRADABLE MAGNESIUM ALLOYS USED IN MEDICAL PROSTHESES
15:00	<b>Jan KOBER</b> DETECTING POROSITY OF 3D PRINTED Ti6Al4V BY NONLINEAR ELASTIC WAVE SPECTROSCOPY
15:30	<b>Josef KROFTA</b> NONDESTRUCTIVE CHARACTERIZATION OF FAULTS IN 3D PRINTED POLYMER SAMPLES
16:00 - 16:30	<i>Coffee break</i>
16:30 - 18:00	<b>Session 7 – chair: E. Leis-Holzinger</b>
16:30	<b>Elisabeth LEISS-HOLZINGER</b> EXPLORING CHALLENGES IN MULTIMODALITY EXEMPLIFIED BY OPTICAL COHERENCE TOMOGRAPHY
17:00	<b>Artem USTINOV</b> X-RAY INSPECTION SYSTEMS FOR ELECTRONIC PARTS
17:30	<b>Sreedhar UNNIKRISHNAKURUP</b> NONDESTRUCTIVE EVALUATION OF THERMAL BARRIER COATING THICKNESS DEGRADATION USING INFRARED THERMOGRAPHY AND TERAHERTZ-TDS IMAGING
19:30 - 22:00	<i>Social dinner</i>

## Wednesday, 9 October 2019

9:00 – 14:30	Tour to Dolni Brezany (20 km by bus) <b>EXCURSION to European laser center HiLASE &amp; ELI-Beams</b> <b>Lunch + WORKSHOP ENDING</b>
15:00 – 17:30	<b>SIGHTSEEING TOUR IN PRAGUE</b>