

## Thursday, November 25 - Virtual

7:50 - 8:00	<b>Lukáš, P.:</b> Opening Ceremony
8:00 - 8:55 Plenary lecture	<b>Paradowska, A.:</b> Industrial applications of neutron diffraction
9:00 - 9:20	<b>Yescas, M.:</b> Neutron diffraction residual stress measurements of a nuclear power plant valve with hardfacing material
9:20 - 9:40	<b>Tomota, Y.:</b> Neutron Bragg-edge transmission imaging for FSSW-joined Mg alloy plates
9:40 - 10:00	<b>Marais, D.:</b> Residual stress in a thick Al 7050 T7451 plate
10:00 - 10:20	<b>Tsumura, Y.:</b> Investigation of residual stress and mechanical properties of steelwork after laser cleaning
10:20 - 10:40	<b>Glaser, D.:</b> The use of Bragg edge neutron transmission for evaluation of strains produced by laser shock peening for low pressure steam turbine blade applications
10:40 - 11:00	<b>Naeem, M.:</b> Temperature-dependent hardening contributions in CrFeCoNi high-entropy alloy
11:00 - 11:20	<b>Gong, W.:</b> In-situ neutron diffraction study of deformation behavior of AZ31 alloy at 21K
11:20 - 11:40	<b>Mao, W.Q.:</b> Strain hardening behavior of metastable austenitic steel with TRIP effect: Insights from stress and strain partitioning
11:40 - 12:00	<b>Hayashi, Y.:</b> Type III stress measurement using scanning 3DXRD
12:00 - 12:20	<b>Kot, P.:</b> Direct diffraction measurement of critical resolved shear stresses and grain stresses in magnesium alloy
<b>Lunch Break</b>	
14:00 - 14:20	<b>Yang, D.:</b> Annealing of focused ion beam damage in gold microcrystals: an in situ Bragg coherent X-ray diffraction imaging study
14:20 - 14:40	<b>Tapar, O.B.:</b> In-situ monitoring of microstructure evolution and stress generation during low pressure carburizing and quenching
14:40 - 15:00	<b>Wronski, S.:</b> The second order plastic incompatibility stresses in hexagonal polycrystalline materials
15:00 - 15:20	<b>Epp, J.:</b> Fast in-situ analysis of temperature and stress fields during grinding of steel by high-energy X-ray diffraction
15:20 - 15:40	<b>Charni, D.:</b> In-situ analysis of strain fields during rotary swaging of steel using synchrotron X-ray radiation
15:40 - 16:00	<b>Buxton, O.G.:</b> Investigating lattice strains and phase transformation in hydrogen charged Zirconium
16:00 - 16:55 Plenary lecture	<b>Yu, Z.:</b> In-situ and ex-situ diffraction studies of material behavior during welding
17:00 - 17:30 Invited lecture	<b>Balogh, L.:</b> Irradiation defects in Zr alloys: a comparison between transmission electron microscopy and diffraction line profile analysis
17:30 - 18:00 Invited lecture	<b>Noyan, I.C.:</b> Investigation of precision, resolution, accuracy and trueness of time-of-flight neutron diffraction strain measurements
18:00 - 18:20	<b>Marais, D.:</b> Minimization of texture influences in diffraction assessments of solid samples
18:20 - 18:40	<b>Klaus, M.:</b> Reassessment of evaluation methods for the analysis of near-surface residual stress fields using energy-dispersive diffraction
18:40 - 19:00	<b>Simon, N.:</b> On the oscillating course of $2\theta$ - $\sin^2\psi$ plots for plastically deformed, cold rolled duplex stainless steel
19:00 - 19:20	<b>Otte, A.L.:</b> Diffraction analysis of phase transformation behavior and stress development in short-term heat treatment of Ti-6246
19:20 - 19:40	<b>Pulvermacher, S.:</b> Load partitioning and micro residual stress development of two duplex steels with different phase contents
19:40 - 20:00	<b>Burca, G.:</b> Recent developments on the IMAT diffraction project
20:00 - 20:20	<b>Pirling, T.:</b> New approaches for in-situ measurements at the SALSA strain scanner

## Friday, November 26 - Virtual

<b>8:00 - 8:55</b> Plenary lecture	<b>Harjo, S.:</b> In situ neutron diffraction for monitoring of internal stresses, deformation & transformation behavior of engineering materials
<b>9:00 - 9:30</b> Invited lecture	<b>Polatidis, E.:</b> Studying the TRIP effect under multiaxial loading using neutron diffraction
<b>9:30 - 9:50</b>	<b>Woo, W.:</b> Through-thickness variations of residual stresses in functionally graded steel-stainless steel structures additively manufactured by direct energy deposition
<b>9:50 - 10:10</b>	<b>Chae, H.:</b> Tailoring mechanical properties of metallic materials via additive manufacturing followed by heat treatment
<b>10:10 - 10:30</b>	<b>Kim, Y.S.:</b> Multiple deformation scheme in direct energy deposited CoCrNi medium entropy alloy at 210K
<b>10:30 - 10:50</b>	<b>Ostergaard, H.E. :</b> Microstructure and residual stress interactions in metal additive manufacturing: post-build assessment and new in-situ methods
<b>10:50 - 11:10</b>	<b>Evans, A.:</b> Residual stresses in additive manufacturing determined by diffraction techniques
<b>11:10 - 11:30</b>	<b>Serrano-Munoz, I.:</b> Influence of the scanning strategy on the RS state of a LPBF IN718 material
<b>11:30 - 11:50</b>	<b>Moztarzadeh, H.:</b> Residual stress in plasma transferred arc (PTA) cladding for hybrid additive manufacturing (AM)
<b>11:50 - 12:10</b>	<b>Yong, C.K.:</b> Synchrotron XRD Evaluation of Residual Stress Distribution for Additive Manufactured Inconel 718 for High Temperature Applications
<b>12:10 - 12:30</b>	<b>Abreu Faria, G.:</b> P61A, a new white beam beamline optimized for residual stress analysis
<b>Lunch Break</b>	
<b>14:00 - 14:55</b> Plenary lecture	<b>Wang, X.-L.:</b> Low-temperature deformation in high-entropy alloys
<b>15:00 - 15:30</b> Invited lecture	<b>Samothrakitis, S.:</b> Microstructural characterization through grain orientation mapping with Laue three-dimensional neutron diffraction tomography
<b>15:30 - 15:50</b>	<b>Larsen, C.B.:</b> Grain-resolved strain analysis with Laue three-dimensional neutron diffraction tomography
<b>15:50 - 16:10</b>	<b>Rouquette, S.:</b> Validation of plane stress assumption on SS316L specimen with one layer
<b>16:10 - 16:30</b>	<b>Silveira, A.C. de F.:</b> Microstructure and stress development during laser metal deposition analyzed by synchrotron X-ray diffraction
<b>16:30 - 16:50</b>	<b>Degener, S.:</b> Material science with a new high energy white beam station – Prospects and challenges
<b>16:50 - 17:10</b>	<b>Landesberger, M.:</b> High accuracy neutron diffraction measurement and positioning with an industrial robot system at the STRESS-SPEC instrument
<b>17:10 - 17:30</b>	<b>Genzel, Ch.:</b> A concept for residual stress gradient analysis in cubic materials with mosaic structure
<b>17:30 - 17:50</b>	<b>Ramadhan, R.S.:</b> Quantitative analysis and benchmarking of positional accuracies of neutron strain scanners
<b>17:50 - 18:10</b>	<b>Apel, D.:</b> The potential of high-flux liquid anode X-ray sources for microstructure and stress analysis
<b>18:10 - 18:30</b>	<b>Cui W.:</b> Ferritic benchmark specimens for cross-comparison of diffraction and destructive residual stress measurement techniques
<b>18:30 - 18:50</b>	<b>Wimpory, R.C.:</b> Strain Scanning on E3 at BERII at the HZB, a retrospective
<b>18:50 - 19:10</b>	<b>Venter, A.M.:</b> Residual stress in sintered WC-VC-Co disks
<b>19:10 - 19:30</b>	<b>Lavanya, S.:</b> Effect of tensile strain on martensite formation and its influence on residual stress distribution in type 304 austenitic stainless steel
<b>19:30 - 19:50</b>	<b>Nielsen, M.-A.:</b> Residual stresses in additively manufactured aluminum alloys and 316L-steel
<b>19:50 - 20:10</b>	<b>Brown, D.:</b> In-situ heat treatment of additively manufactured Ti-6Al-4V
<b>20:10 - 20:40</b> Invited lecture	<b>Brügger, A.:</b> Protecting Suspension Bridges against Fire with Neutron Diffraction

## Saturday, November 27 - On-site & Online broadcasting

<b>8:30 - 9:25</b> Plenary lecture	<b>Borbély, A.:</b> Microstrain distribution in crystals
<b>9:30 - 10:00</b> Invited lecture	<b>Thiry, M.:</b> When industry meets large facilities
<b>10:00 - 10:30</b> Invited lecture	<b>Marciszko-Wiąckowska, M.:</b> In-depth evolution of residual stresses and effect of free surface on stress relaxation determined using X-ray diffraction Laplace methods
<b>10:30 - 10:50</b>	<i>Coffee break</i>
<b>10:50 - 11:10</b>	<b>Sobotková, N.</b> Delivery of neutron optics system for the BEER diffractometer in ESS
<b>11:10 - 11:30</b>	<b>Donath, T.:</b> EIGER2 CdTe detectors for hard X-ray research
<b>11:30 - 11:50</b>	<b>Šittner, P.:</b> Oriented internal stress in plastically deformed NiTi shape memory alloys
<b>11:50 - 12:10</b>	<b>Henningsson, A.:</b> A framework for equilibrium constrained strain estimation and tomography
<b>12:10 - 12:30</b>	<b>Wierzbowski K.:</b> Modification of mechanical properties and microstructure of titanium grade 2 processed by hydrostatic extrusion
<b>12:40 - 13:00</b>	<b>Ozcan, B.:</b> In-situ neutron strain imaging during direct metal deposition of Ni-based Inconel 718 alloy
<b>Lunch Break</b>	
<b>14:00 - 14:30</b> Invited lecture	<b>Beran, P.:</b> The material engineering diffractometer BEER at ESS
<b>14:30 - 15:00</b> Invited lecture	<b>Farkas, G.:</b> Line profile analysis and rocking curve evaluation in individual grains of $\beta$ -Ti polycrystal
<b>15:00 - 15:20</b>	<b>Canelo-Yubero, D.:</b> Residual stresses in Al-Cu clad composites processed by rotary swaging
<b>15:20 - 15:40</b>	<b>Čapek, J.:</b> Optimisation of post-built annealing of Ni Alloy718 processed by powder bed fusion
<b>15:40 - 16:00</b>	<b>Németh, G.:</b> Residual stresses in Titanium prepared by CONFORM ECAP
<b>16:00 - 16:20</b>	<i>Coffee break</i>
<b>16:20 - 16:40</b>	<b>Heller, L.:</b> Prediction of martensite textures in NiTi wires
<b>16:40 - 17:00</b>	<b>Bian, X.:</b> In-situ synchrotron x-ray diffraction texture analysis of tensile deformation of nanocrystalline NiTi wire in martensite state
<b>17:00 - 17:20</b>	<b>Kehres, J.:</b> Utilization of laboratory energy dispersive X-ray diffraction for stress determination in polymers as a supplement to synchrotron experiments
<b>17:20 - 17:40</b>	<b>James, A.:</b> Tomography driven diffraction capabilities of the new DIAD beamline

## Posters

**Drozdenko, M.:** Configuration of deformation rig developed for beamline at European Spallation Source

**Olsen, U.L.:** Depth resolving stress in amorphous polymers

**Leemreize, H.:** Multiscale residual stress analysis using x-ray and neutron dark-field microscopy

**Leemreize, H.:** Harmonisation and standardization of industrial residual stress measurement using neutrons and synchrotron x-rays

**Nguyen T.D.:** Microscopic stress-strain evaluation of age-hardened AA7075 during repeated stress relaxation at elevated temperature

**Baczmański, A.:** New analysis method of multireflection grazing incidence X-ray diffraction

**Oponowicz, A.:** Saccharine effect on the microstructure and stress state in nickel electrodeposited on copper substrate

**Setoyama, D.:** Diffraction measurement condition suitable for stress analysis of Polyphenylenesulfide component

**Setoyama, D.:** Non-destructive analysis of lead-free solder degradation in power electronic module by neutron diffraction

**Kendall, O.:** Influence of heat treatment on the residual stress in laser clad hypereutectoid rail components using neutron diffraction

**Chae, H.:** The effect of carbon content on deformation mechanisms of high Mn steels at elevated temperature

**Su, Y.H.:** Strain and microstructure distributions around a fatigue crack tip studied by neutron diffraction