

9th International Conference on Residual Stresses

Time	Room 'Richard Strauss'	Room 'Olympia'
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Saturday 6 October 2012 - Congress Centre Garmisch-Partenkirchen

5:00 PM	Registration
7:00 PM	Get together and fingerfood

Sunday 7 October 2012 - Congress Centre Garmisch-Partenkirchen

10:00 AM	Registration	
	Fingerfood	
1:15 PM	Opening	
1:30 PM	Plenary Talk: <i>Residual Stresses in Hard Coatings Characterized by Scanning X-ray Nano Beam Diffraction and Synchrotron High-Temperature X-ray Diffraction</i> , J. Keckes (Montanuniversität and Austrian Academy of Science, Leoben, Austria)	
	Session 1: Thin Films / Stress Gradients	Session 2: Mechanical Surface Treatment
2:00 PM	<i>Diffraction stress analysis of fiber textured Ti thin films undergoing hcp-fcc phase transformation</i> , J. Chakraborty (National Metallurgical Laboratory, Jamshedpur, India)	<i>Relaxation of Peening Residual Stress during Mechanical Loading</i> , K. Akita (Japan Atomic Energy Agency), K. Takeda, Y. Sano
2:20 PM	<i>Quantum confinement drives macroscopic stress oscillations at the initial stage of epitaxial film growth</i> , D. Flötotto (Max Planck Institute for Intelligent Systems, Stuttgart, Germany), Z.M.Wang, L .P.H. Jeurgens, E.J. Mittemeijer	<i>On the residual stress generation during deep rolling of cylindrical parts: experimental and numerical analysis</i> , S.M.H. Gangaraj (Politecnico di Milano, Italy), M. Guagliano, M. Carboni
2:40 PM	<i>Diffraction stress analysis of highly planar faulted, nanocrystalline Ni(W) thin films</i> , S.J.B. Kurz (Max Planck Institute for Intelligent Systems, Stuttgart, Germany), U. Welzel, E.J. Mittemeijer	<i>Residual stress depth distribution after Piezo Peening of quenched and tempered AISI 4140</i> , F. Lienert (Karlsruhe Institute of Technology, Germany), J. Hoffmeister, V. Schulze
3:00 PM	<i>A new approach to determine the effect of residual stresses on micromechanical properties of thin films by cantilever deflection method</i> , R. Daniel (Montanuniversität Leoben, Austria), A. Riedl, M. Stefanelli, J. Keckes, C. Mitterer	<i>Graphite Morphology's Influence on Shot Peening Results in Cast Iron</i> , M. Lundberg (Linköping University, Sweden), R. Lin Peng, M. Ahmad, T. Vuoristo, S. Johansson

3:20 PM	<i>The influence of bias voltage and manufacturing parameters on residual stresses in Ti/TiAlN multilayer systems, W. Tillmann (Technical University Dortmund, Germany), U. Selvadurai, G. Fischer, T. Sprute, F. Hoffmann</i>	<i>The evolution of residual stress and microstructure in shot peened S30432 steel at high temperatures, K. Zhan (Shanghai Jiaotong University, PR China), C.H. Jiang, H. Pan</i>
3:40 PM	Coffee Break	
4:10 PM	<i>Stress build-up and relaxation mechanisms in thin Sn and Sn-based alloy films; Sn whisker formation and its mitigation, J. Stein (Max Planck Institute for Intelligent Systems, Stuttgart, Germany), U. Welzel, W. Huegel, E.J. Mittemeijer</i>	<i>Mechanical surface treatment technologies for improving HCF strength and surface roughness of blisk-rotors, G.G. Feldmann (Rolls Royce Germany Ltd & Co KG), T. Haubold</i>
4:30 PM	<i>Characterisation of the residual stresses in HVOF WC-Co coatings and substrates, A.M. Venter (Necsa Limited and DST/NRF, South Africa), O.P. Oladijo, L.A. Cornish, N. Sacks</i>	<i>From process parameters to residual stress field: complete ultrasonic shot peening simulation, D. Gallitelli (Université de Technologie de Troyes, France), J. Badreddine, E. Rouhaud, M. Micoulaut, C. Labergère, M François</i>
	Session 3: Material Loading, Damage and Component Life	Session 4A: Manufacturing Processes I
4:50 PM	<i>Residual stress evolution in railway steels, A.C. Batista (University of Coimbra, Portugal), D.F.C. Peixoto, J.P. Nobre, L. Coelho, L.A.A. Ferreira, P.M.S.T. de Castro</i>	<i>In situ strain measurement in the chip formation zone during orthogonal cutting of steel C45E, K. Brömmelhoff (Technical University Berlin, Germany), R. Gerstenberger, S. Henze, T. Fischer, N. Schell, E.Uhlmann, W. Reimers</i>
5:10 PM	<i>Service loading analysis of wind turbine gearbox rolling bearings based on X-ray diffraction residual stress measurements, J. Gegner (SKF GmbH, Schweinfurt, University of Siegen, Germany), W. Nierlich</i>	<i>Prediction of the distortions caused by the redistribution of the residual stresses during machining using FEM, X. Cerrutti (Mines ParisTech, Sophia-Antipolis, France), K. Mocellin</i>
5:30 PM	<i>Residual Stresses in Rolling Bearing Elements, H. Vettters, H. Schlicht</i>	<i>Evolution of the residual stress state after surface mechanical attrition treatment and low temperature plasma nitriding, M. Chemkhi (University of Technology of Troyes, France), D. Retraint, A. Roos, C. Demangel, G. Montay, L. Waltz</i>
5:50 PM	<i>Impact of irradiation and temperature on deformation mechanisms in a zirconium alloy, M.R. Daymond (Queen's University, Kingston, Canada), F. Long, T.A. Sisneros, D.W. Brown</i>	<i>Sensitivity of Macro- and Micro-Residual Stress States to Thermal Influences of Steel Surfaces Caused by Grinding Burn and Laser Treatments, B. Eigenmann (X-Ray Laboratory Eigenmann, Schnaittach-Hormersdorf, Germany), A. Zösch, M. Seidel</i>

6:10 PM	<i>Lifing Approaches to Shot Peened Components Allowing for Consideration of Strain Hardening and Residual Stress Effects</i> , K.A. Soady (University of Southampton, UK), B.G. Mellor, A. Morris, P.A.S. Reed	<i>Non-destructive residual stress analysis of induction hardened components by neutron and X-ray diffraction</i> , J. Epp (Foundation Institute of Materials Science, Bremen, Germany), T. Pirling, T. Hirsch
	Dinner	
	Poster Session (see below)	

Monday 8 October 2012 - Congress Centre Garmisch-Partenkirchen		
8:30 AM	Plenary Talk: <i>Theoretical and Practical Issues in the Calibration of Diffraction Stress/Strain Instruments</i> , I.C. Noyan (Columbia University, New York, USA)	
	Session 5A: Microstructure, Local Stresses I	Session 4B: Manufacturing Processes II
9:00 AM	<i>Differential Method for Study of Stress Localization Using Neutron Diffraction</i> , A. Baczmański (Institute of Aviation, Warszawa, Poland), E. Gadalińska, S. Wroński, L. Le Joncour, B. Panicaud, M. Francois, C. Braham, A. Paradowska, V. Klosek	<i>Interpretation of Diffraction Data from In-situ Stress Measurements during bi-axial Sheet Metal Forming</i> , T. Gnäupel-Herold (University of Maryland, College Park, USA), M.A. Iadicola, A.A. Creuziger, T. Foecke, L. Hu
9:20 AM	<i>Coherency strains and stresses in a single crystal nickel based superalloy: constrained and unconstrained lattice misfit</i> , G. Brunetti (Université de Lorraine, Metz, France), A. Settefrati, E. Bouzy, S. Denis, A. Hazotte, J.-J. Fundenberger, A. Tidu	<i>The influence of chemical composition on residual stresses in NiCoMo alloy deposits on 12 Ni maraging steel</i> , Z. Bergant (University of Ljubljana, Slovenia), J. Grum
9:40 AM	<i>In situ structural evolution of steel-based MMC by high energy X-ray diffraction and comparison with micromechanical approach</i> , G. Geandier (Université de Nancy, France), M. Dehmas, M. Mourrot, E. Aeby-Gautier, S. Denis, O. Martin, N. Karnatak	<i>Evaluation of residual stress profiles in nitrided steels with transmission angle-dispersive synchrotron diffraction</i> , S. Jegou (Arts et Métiers ParisTech, MécaSurf Laboratory, Aix-en-Provence, France), L. Barrallier
10:00 AM	<i>Micro stresses within Cu bi-crystal and Al tri-crystal after plastic deformation observed by X-ray and neutron diffraction</i> , T. Hanabusa (The University of Tokushima, Japan), A. Shiro, M. Nishida, M. Refai, T. Okada	<i>In-situ residual stress analysis during laser surface hardening of steel</i> , V. Kostov (Karlsruhe Institute of Technology, Germany), J. Gibmeier, F. Wilde, P. Staron, R. Rössler, A. Wanner

10:20 AM	Coffee Break	
	Session 5B: Microstructure, Local Stresses II	Session 4C: Manufacturing Processes III
10:50 AM	<i>Local stress distributions studied at the single grain level, J. Oddershede</i> (Technical University of Denmark), S. Schmidt, B. Camin, W. Reimers	<i>Shaping of ceramics using residual stresses, W. Pfeiffer</i> (Fraunhofer Institute for Mechanics of Materials, Germany), H. Höpfel
11:10 AM	<i>Development of internal strains in textured Titanium alloy during uni-axial deformation: neutron diffraction and the elasto-plastic self-consistent model, G. Oum</i> (Université de Nantes, France), D. Gloaguen, J. Fajoui, V. Legrand, T. Pirling, J. Kelleher, W. Kockelmann	<i>In-situ XRD stress analysis during expansion of stents, W. Kowalski</i> (University of Rostock, Germany), M. Dammer, F. Backzewitz, O. Keßler
11:30 AM	<i>Microstrain evolution in cold drawing of fully pearlitic steel wires up to large strains, M. Seefeldt</i> (Catholic University of Leuven, Belgium), M. Kriška, J. Tacq, M. Klaus	<i>Residual Stresses and Microstructure of Japanese Sword, Y. Sakaida</i> (Shizuoka University, Japan), H. Yoshida, S. Yashiro, T. Murai
		Session 6: Instrumental Developments
11:50 AM	<i>Evolution of residual micro phase and orientation dependent stresses during cold wire drawing, M. Kriška</i> (Catholic University of Leuven, Belgium), J. Tacq, K. van Acker, M. Seefeldt	<i>XRD² stress measurement for samples with texture and large grains, B.B. He</i> (Bruker AXS Inc.)
12:10 PM	<i>Study on ductile damage progress of aluminium single crystal using synchrotron white X-ray, J. Shibano</i> (Kitami Institut of Technology, Japan), M. Kiso, K. Kajiware, T. Shobu, S. Miura, M. Kobayashi	<i>Alignment of a ¼-circle cradle for reliable residual stress measurements, A.C. Vermeulen</i> (PANalytical B.V., Almelo, The Netherlands)
12:30 PM	<i>Atomistic Simulation of Residual Stresses due to Nanoscale Precipitates, S. Schmauder</i> (University of Stuttgart, Germany), P. Binkele, A. Mora	<i>Development of Stress Measurement Method Using Two Dimensional Detector Scanning System, S. Zhang</i> (Quantum Beam Science Directorate, Japan Atomic Energy Agency), T. Shobu, A. Shiro
	Lunch	
	Excursion to 'Linderhof'	
	Conference Dinner	

Tuesday 9 October 2012 - Congress Centre Garmisch-Partenkirchen

8:30 AM	Plenary Talk: Numerical Simulation of Weld Residual Stress from Mega- to Micro-Structures , M. Mochizuki (Osaka University, Japan)	
	Session 7: Stress Analysis – Mechanical Methods	Session 8A: Welding and Joining I
9:00 AM	<i>An almost user-independent evaluation formalism to determine arbitrary residual stress depth distributions with the hole drilling method,</i> A. Nau (Kassel University, Germany), G.G. Feldmann, B. Scholtes, J.P. Nobre, W. Zinn	<i>Stress distribution around rivets. Comparison of results of strain gauges and X-ray stress measurements. The novel methodology presentation.</i> E. Gadalińska (NET Institute, Warszawa, Poland), J. Kaniowski, A. Baczmański, W. Wronicz
9:20 AM	<i>Influence of interfacial roughness on residual stress analysis of thick film systems by incremental hole-drilling,</i> E. Obelode (Karlsruhe Institute for Technology, Germany), J. Gibmeier	<i>Synchrotron X-ray diffraction analysis of complete 2D residual stress states in Linear Friction Welding of Al alloys,</i> M. Xie (University of Oxford, UK), T.-S. Jun, X. Song, A.M. Korsunsky
9:40 AM	<i>Hole-Drilling Method for Residual Stress Measurement – consideration of elastic-plastic material properties,</i> D. von Mirbach (University of Stuttgart, Germany)	<i>Residual Stress Tensor Distribution in a Micro-Area around Interface of Brazed Si_3N_4/Cu/Steel,</i> S.-I. Tanaka (Tohoku University, Sendai, Japan)
10:00 AM	<i>Measurement of residual stresses in the cold-rolled Fe-Ni-Cr/Invar thermo-bimetallic plate,</i> H. Lille (Estonian University of Life Sciences), J. Kõo, J. Valgur, A. Ryabchikov, R. Reitsnik, R. Veinthal	<i>Neutron diffraction investigation of residual stresses induced in niobium-steel bilayer pipe manufactured by explosive welding,</i> Y.V. Taran (Joint Institute for Nuclear Research, Dubna, Russian Federation), A. Balagurov, B. Sabirov, V. Davydov, A. Venter
10:20 AM	Coffee Break	
10:50 AM	Plenary Talk: Residual stress depth profiling by multiple diffraction line analysis: Basic aspects and applications , Ch. Genzel (Helmholtz-Zentrum Berlin für Materialien und Energie, Germany) D. Apel, M. Klaus, M. Genzel, D. Balzar	
	Session 9A: Stress Analysis – Diffraction Methods I	Session 8B: Welding and Joining II
11:20 AM	<i>Stress measurement of an austenitic stainless steel foil by $\cos^2 \chi$ method using polychromatic laboratory X-rays,</i> Y. Akiniwa (Yokohama National University, Japan), T. Hiramura	<i>Residual Stress Engineering in Fatigue Resistant Welds,</i> M. Farajian (University of Braunschweig, Germany), Z. Barsoum, A. Kromm
11:40 AM	<i>Residual stress analysis by energy-dispersive synchrotron diffraction: Concepts for high resolution depth profiling in real space,</i> T. Fuß (Helmholtz-Zentrum Berlin für Materialien und Energie, Germany), M. Klaus, Ch. Genzel	<i>Numerical analysis of the effect of phase transformation on residual stresses in an autogenous beam edge weld,</i> M. Joosten (TWI Ltd, Cambridge, UK)

12:00 PM	<i>Evaluation of composition-induced residual stress profiles in expanded austenite on single crystals with energy-dispersive diffraction, S. Jegou (Technical University of Denmark), T.L. Christiansen, M. Klaus, Ch. Genzel, M.A.J. Somers</i>	<i>Finite element simulation in welded T- joints using different welding sequences, C. Martín (Numerical Analysis Technologies, Gijón, Spain), E. Rodríguez, J. Guirao, J.L. Cortizo</i>
12:20 PM	<i>Determination of steep residual stress gradients by different angle-dispersive X-ray diffraction methods, A. Liehr (University of Kassel, Germany), T. Manns, K. Tolstikhin, B. Scholtes</i>	<i>Predicting residual stresses in friction stir welding of aluminum alloy 6061 using an integrated multiphysics model, M. Nourani (The University of British Columbia, Canada), A.S. Milani, S. Yannacopoulos, C. Yan</i>
12:40 PM	<i>High spatial resolution $\sin^2 \psi$-based residual stress gradient analysis by energy-dispersive diffraction, M. Meixner (Helmholtz-Zentrum Berlin für Materialien und Energie, Germany) M. Klaus, Ch. Genzel, W. Reimers</i>	<i>3D modelling of dissimilar metal weld considering recovery and recrystallization in weld metal and HAZ, D. Qiao (Oak Ridge National Laboratory, USA), Wei Zhang, Zhili Feng, Paul Crooker</i>
1:00 PM	Lunch	
	Session 9B: Stress Analysis – Diffraction Methods II	Session 8C: Welding and Joining III
2:30 PM	<i>Influence of shot-peening parameters on the sub-surface residual stress profiles in aluminum and steel components, D. Cecchin (University of Trento, Italy), C.L. Azanza Ricardo, M. D'Incau, M. Bandini , P. Scardi</i>	<i>Stress measurements using XRD and Synchrotron facility at ESRF to determine the effect of machining of the weld toe on residual stress developments as well as on fatigue life, H. Ahmed (ArcelorMittal Global R&D Industry Gent, Zelzate, Belgium), N. Bernier, J.L. Collet, V. Honkimäki</i>
2:50 PM	<i>Surface strain scanning in laser hardened steel SAE 4140 using neutron diffraction, J. Gibmeier (Karlsruhe Institute of Technology, Germany), V. Kostov, J. Rebelo Kornmeier, M. Hofmann, A. Wanner</i>	<i>Neutron diffraction in a validation of in-situ vibratory stress relief applied to welded steel plates, V. Davydov (Paul Scherrer Institute, Villigen, Switzerland), A. Wahlen, A. Matt, H. van Swygenhowen</i>
	Session 10: Stress Analysis – Other Methods	
3:10 PM	<i>Ultrasonic residual stress measurement on the surface of steel tubes - microstructure issue -, F. Belahcene (ULTRA RS, Rosières Près Troyes, France)</i>	<i>In-situ measurement of thermal residual stresses during fusion welding, Jana von der Heydt (Rheinisch-Westfälische Technische Hochschule Aachen, Germany), U. Reisgen, C. Geffers, R. Sharma</i>
3:30 PM	<i>Application of the Eigenstrain method to predict residual stresses at curved edges after Laser Shock Peening, S. Coratella (The Open University, Milton Keynes, UK), M.E. Fitzpatrick</i>	<i>Residual Stresses in Aluminium Welds, T. Nitschke-Pagel (Technische Universität Braunschweig, Germany), R. Wimpory</i>

3:50 PM	<i>Use of the eigenstrain concept for residual stress analysis, V. Luzin</i> (Australian Nuclear Science & Technology Organisation)	<i>An experimental comparison of weld-induced residual stresses using different stainless steel filler metals commonly used for hydraulic turbines manufacturing and repair, S. Godin</i> (Institut de Recherche d'Hydro, Québec, Canada), D. Thibault, J-B. Lévesque
4:10 PM	<i>Third Order Elastic Constants and Rayleigh Wave Dispersion of Shot Peened Aero-Engine Materials, M. Rjelka</i> (Fraunhofer Institut für zerstörungsfreie Prüfverfahren, Dresden, Germany), M. Barth, S. Reinert, B. Koehler, J. Bamberg, H.-U. Baron, R. Hessert	
4:30 PM	Closing	

Plenary talks, opening and closing will take place in the room 'Richard Strauss'.

Exhibitions take place all days.

Lunches and dinners will take place at the Congress Centre.

Poster Session

Topic 1: Thin Films / Stress Gradients	Topic 2: Mechanical Surface Treatment
Strain and composition depth profile in graded epitaxial thin films studied by high resolution reciprocal space mapping, A. Benediktovitch (Belarusian State University, Minsk, Belarus), A. Ulyanenko	3D model of shot dynamics for ultrasonic shot peening, J. Baddreddine (SONATS, Carquefou, Université de Technologie de Troyes, France), E. Rouhaud, M. Micoulaut, D. Retraint, V. Desfontaine, P. Renaud
Structure related stress gradients in thin nanocrystalline films revealed by X-ray nanodiffraction, R. Daniel (Montanuniversität Leoben, Austria), J. Keckes, C. Mitterer	Surface modification analysis after shot peening of AA 7075 in different states, S. Žagar (Faculty of Mechanical Engineering, Ljubljana, Slovenia), J. Grum
Thermally-Treated Hard Coatings Characterized by In-Situ X-ray Diffraction Coupled with Four-Point Bending, M. Stefanelli (Materials Center Leoben Forschung GmbH, Leoben, Austria), A. Riedl, R. Daniel, C. Mitterer, J. Keckes	Numerical evaluation of residual stress and strain from roller burnishing process, J. Mullins (Inspecta Technology, Stockholm, Sweden), E. Isaksson, J. Gunnars
	Residual stresses from laser shock peening: the role of component and peen spot geometry, K. Langer (Air Force Research Laboratory, Wright-Patterson Air Force Base, USA), M.E. Fitzpatrick, M.B. Toparli, T.J. Spradlin
	Influence of Shot Peening Parameters on Residual Stresses in Flake and Vermicular Cast Iron, M. Lundberg (Linköping University, Sweden), R. Lin Peng, M. Ahmad, T. Vouristo, S. Johansson
	The influence of shot peening process on the residual stress and microstructure in the deformed S30432 austenite steel surface layer, K. Zhan (Shanghai Jiaotong University, PR China), C.H.Jiang, H. Pan
	Characteristics of residual stress by water-jet peening, K. Suzuki (Niigata University, Japan), T. Shobu, A. Shiro
	Corrosion and Fatigue of Al-alloys AA359.0 and AA6060 in Different Surface Treatment States, K. Timmermann (University of Kassel, Germany), W. Zinn, B. Scholtes
	Generation and determination of compressive residual stresses of short penetration depths, R. Weingärtner (Karlsruhe Institute of Technology, Germany), J. Hoffmeister, V. Schulze

Topic 3: Material Loading, Damage and Component Life	Topic 4: Manufacturing Processes
<i>Finite element analysis of the rolling-sliding contact of vibrationally loaded bearings based on a micro friction model, J. Gegner (University of Siegen, Germany), A. Konrad, W. Nierlich</i>	<i>Modelling of Residual Stress Relief of Cold Working Process in Aluminium Blocks, R. Bilkhu (The Advanced Manufacturing Research Centre with Boeing, Sheffield, UK), S. Ayvar-Soberanis, J. Castle, M. Thomas, S. Turner</i>
<i>An experimental procedure to determine the interaction between applied loads and residual stresses, G. Horne (University of Bristol, UK), M.J. Peel, D.J. Smith</i>	<i>Residual stress development in laser machined PVD-coated carbide cutting tools, B. Denkena (Leibniz University Hannover, Germany) C. Gey, B. Breidenstein</i>
<i>Residual stresses in rail-ends from the in-service insulated rail joints using neutron diffraction, V. Luzin (Australian Nuclear Science & Technology Organisation), C. Rathod, D. Wexler, H. Li, M. Dhanaseker</i>	<i>Predictive Modeling for Tool Deflection and Part Distortion in Large Machined Components, S. Jayanti (Third Wave Systems, Minneapolis, USA), D. Ren, E. Erickson, S. Usui, T. Marusich, K. Marusich, H. Elangovan</i>
<i>Method for X-ray Residual Stress Analysis in Springs and Spring Steel, S. Mimura (Chuo Spring Co., Ltd., Japan), Y. Goto, S.-I. Ohya</i>	<i>Residual stress in the hot sprues of as-cast Mg-Zn alloys investigated by STRESS-SPEC neutron diffractometer, W. Gan (Helmholtz-Zentrum Geesthacht, Germany), Z. Wang, Y.D. Huang, N. Hort, M. Hofmann</i>
<i>Effect of proof test induced residual stress on limit load and thermal fatigue of a combustor end cap, S. Nakhodchi (MAPNA Turbine Engineering and Manufacturing Co., Karaj, Iran), P. Rasouli</i>	<i>Through-Thickness Stresses in Automotive Sheet Metal after Forming, T. Gnäupel-Herold (University of Maryland, College Park, USA), M.A. Iadicola, T. Foecke, D.E. Green</i>
<i>Residual stresses in thick aluminum impeller forgings using neutron diffraction, J. Repper (Paul Scherrer Institute, Villigen, Switzerland), N. Chobaut, P. Schloth, M. Hofmann, P. Sälzle, J.-M. Drezet, H. van Swygenhoven</i>	<i>Influence of X-ray elastic constant and X-ray spot parameter for residual stress evaluation induced by turning, H. Hamdi (University of Lyon, Saint-Étienne, France), S. Youssef</i>
<i>Impact of residual stresses on the fatigue behavior of a Nickel-based superalloy, A. Moraçais (ONERA – The French Aerospace Lab, Châtillon, France), M. Fèvre, M. François, P. Kanouté, S. Kruch</i>	<i>Simulation of roller straightening process with respect to residual stress and the curvature trend, R. Kaiser (University of Leoben, Austria), T. Hatzenbichler, B. Buchmayr, T. Antretter</i>
	<i>Relationship between residual stresses and quenching cracks after superficial heating..., A. Fleurentin (Technical Center for Mechanical Industry, Senlis, France), F. Lefebvre</i>
	<i>Residual stresses profiles of clad austenitic stainless steel evaluated by X-ray diffraction and by incremental hole drilling method, M.J. Marques (University of Coimbra, University of Porto, Portugal), A.C. Batista, L. Coelho, J.P. Nobre, A. Loureiro</i>

<i>The Influence of Dry Cutting and Tool Wear on the Residual Stresses in a High Speed Machined Nickel-Based Superalloy</i> , R.Lin Peng (Linköping University, Sweden), J.M. Zhou, S. Johansson, A. Billenius, V. Bushlya, J.E. Stahl
<i>Analysis of Residual Stresses in Aluminum Castings by Neutron Diffraction</i> , M. Reihle (Technische Universität München, Garching, Germany), M. Hofmann, U. Wasmuth, W. Volk
<i>Residual Stress Tensor in As-Cast Austenite Steel Measured by Two-Dimensional X-ray Diffraction Method</i> , Y. Saito (Tohoku University, Sendai, Nippon Yakin Kogyo Co. Ltd., Kawasaki, Japan), S.-I. Tanaka
<i>Process parameters and surface integrity prediction in transverse cylindrical grinding of hardened steel with CBN grinding wheel</i> , H. Sallem (University of Lyon, Saint-Etienne, France), H. Hamdi
<i>Comparative analysis of hand disc grinding residual stress evaluation using cut compliance and X-ray diffraction methods</i> , S. Youssef (University of Lyon, Saint-Etienne, France), H. Hamdi
<i>Effects of moulding conditions on residual stresses and tensile strength of injection moulded plastics</i> , S. Katmer (Yalova University, Turkey), C. Karatas

Topic 5: Microstructure, Local Stresses	Topic 6: Instrumental Developments
<i>Martensitic transformations, shape memory effect, crystallography and application on copper based beta-phase alloys</i> , O. Adiguzel (Firat University, Elazig, Turkey)	<i>New Developments in Laboratory Micro-focus X-ray Sources</i> , B. Hasse (Incoatec GmbH, Geesthacht, Germany), A. Kleine, J. Wiesmann, C. Michaelson
<i>Macroscopic and microscopic determinations of residual stresses in thin Oxide Dispersion Strengthened tubes</i> , P-E. Fosse (CEA/DEN/Service de Recherches Métallurgiques Appliquées, Gif-Sur-Yvette, France), L. Toulbi, S. Bosonnet, J-L Béchade, O. Castelnau, Y. de Carlan	<i>Standard Sample Package for Calibration of X-ray Stress Measurement</i> , S. Yasukawa (Tokyo City University, Japan), T. Miyoshi, M. Yamamoto, T. Yamamoto, S. Ohya
<i>Cementite dissolution in cold drawn pearlitic steel wires: Role of dislocations and residual stresses</i> , J. Chakraborty (National Metallurgical Laboratory, Jamshedpur, India), M. Ghosh, G. Das, S. Chandra	

Nanometric AlNi precipitation in a 84.68 wt.% Cu-11.25 wt.%Al- 4.07 wt.%Ni shape memory alloy, K. Hamouda (Université des Sciences et de la Technologie Houari Boumediene, Alger, Algérie), S.M. Chentouf, M.Bouabdallah, H.Cheniti, N. Amimer

Sub-micromechanical test of grain boundaries after intragranular reactive diffusion, J.A. Khokhlova (The E.O. Paton Electric Welding Institute of National Academy of Sciences of Ukraine), A.Ya.Ishchenko, M.A. Khokhlov

Evolution of stress distribution accompanied by transformation induced plastic deformation in Fe-0.2C-1.5Mn-1.5Si steel, T. Kikuchi (Tokyo City University, Japan), M. Imafuku, M. Kumagai, S. Ohya, E. P. Kwon, S. Suzuki, S. Sato

Thermal Stress Measurement of Tungsten Fiber Reinforced Titanium Composite by X-ray Diffraction, M. Nishida (Kobe City College of Technology, Japan), M. Haneoka, T. Matsue, T. Hanabusa

Quantitative XRD analysis: tools to investigate link between hydrous strain and CEC in the case of Me-exchanged Montmorillonite, W. Oueslati (Faculté des Sciences de Bizerte, Zarzouna, Tunisia), M. Ammar, H. Ben Rhaïem, A. Ben Haj Amara

Relationship between interlamellar space organization and elastic properties: case of stressed Na Rich-montmorillonite, W. Oueslati (Faculté des Sciences de Bizerte, Zarzouna, Tunisia), H. Ben Rhaïem, A. Ben Haj Amara

Hydration-dehydration performance of (Na⁺, Cs⁺) exchanged smectite: effect of the charge location and the cation nature, M. Ammar (Faculté des Sciences de Bizerte, Zarzouna, Tunisia), W. Oueslati, H. Ben Rhaïem, A. Ben Haj Amara

Effect of an applied strain caused by alkaline perturbation on the cationic exchange capacity of dioctahedral smectite: quantitative XRD investigation, R. Chalhaf (Faculté des Sciences de Bizerte, Zarzouna,

Lattice strain evolution of a stainless steel during Bauschinger complex loading, G. Oum (Université de Nantes, France), J. Fajoui, D. Gloaguen, V. Legrand, J. Kelleher, W. Kockelmann

<i>Distribution of residual stresses in 1070 single phase aluminium with grain size gradient formed by RBT treatment, Y. Enomoto (Hirosaki University, Japan), T. Nishimura, H. Sato, S.-I. Tanaka</i>
<i>Internal and Residual Stresses in High Temperature Deformation of Solid Solutions, H. Sato (Hirosaki University, Japan), Y. Enomoto, K. Omote, S.-I. Tanaka</i>
<i>Deformation induced coherency loss of Al₃ (Zr,Sc) precipitates in Al investigated by TEM imaging of type 3 micro stresses, M. Schöbel (Technical University Vienna, Austria), P. Pongratz, H.P. Degischer</i>
<i>Relationship between residual stress and recrystallization in aluminium single crystal, A. Shiro (The University of Tokushima, Japan), T. Okada, T. Shobu, T. Kawano, H. Bunya</i>
<i>Characteristic Residual Stress Evolved in Shape Memory Fe-Mn-Si-Cr Alloys, S. Suzuki (Tohoku University, Japan), E.P. Kwon, S.-I. Tanaka</i>
<i>Synchrotron diffraction study of cementite in cold drawn pearlitic wires, J. Tacz (Catholic University of Leuven, Belgium), M. Kriška, M. Seefeldt</i>
<i>Nano/Micro-Protrusion on Rolled Metals Induced by Residual Stress and Ar⁺ Irradiation, R. Abe (Tohoku University, Japan), S.-I. Tanaka</i>
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<i>Re-evaluation of the Hall Method, R. Yokoyama (Rigaku Corporation, Japan)</i>

Topic 7: Stress Analysis – Mechanical Methods	Topic 8: Welding and Joining
<i>Modelling and Measurement of Residual Stresses Along the Process Chain of Autofrettaged Components by using FEA and Hole-Drilling Method with ESPI, H. Brünnet (Saarland University, Saarbrücken, Germany), D. Bähre, D. Dapprich, F. Jerabek</i>	<i>Residual Stress Measurement of a Friction Stir Welded Stringer to Skin Lap Joint by Neutron Diffraction, M. Bach (Carleton University, Ottawa, Canada), A. Merati, R. Bell, X. Wang</i>

<i>Mapping Multiple Components of the Stress Tensor using the Contour Method</i> , F. Hosseinzadeh (The Open University, Milton Keynes, UK), P.J. Bouchard	<i>Stress mapping of a rotary friction weld of dissimilar metals (Al7020/316L steel)</i> , M. Hofmann (Technical University München, Garching, Germany), W.M. Gan, C. Randau, V. Ventzke, H.-G. Brokmeier
<i>Stress measurements in glass and plastic by optical hole-drilling</i> , M. Laakkonen (Stresstech Oy, Vaajakoski, Finland), T. Rickert, L. Suominen	<i>Evaluation of Residual Stresses in 12%-Cr Steel Friction Stir Welds by Eigenstrain Reconstruction Method</i> , T.-S. Jun (Welding & Joining Research Group, POSCO, Pohang, South Korea), A.M. Korsunsky
<i>Numerical and Experimental Study of the Plasticity Effect on Residual Stress Measurement using Slitting Method</i> , A.H. Mahmoudi (Bu-Ali Sina University, Hamedan, Iran), S. Heydarian, K. Behnam	<i>Residual stress characterization in friction stir welds of AA2024-T4 and AA6061-T6</i> , J. Zapata (National University of Colombia, Medellín, Colombia), D. López
<i>A Neural Networks Approach to Measure Residual Stresses Using Spherical Indentation</i> , A.H. Mahmoudi (Bu-Ali Sina University, Hamedan, Iran), S.H. Nourbakhsh, M. Ghanbari-Matloob	<i>Development of efficient 3D welding simulation approach for residual stress estimation in fillet welds</i> , A. A. Bhatti (KTH, Stockholm, Sweden), Z. Barsoum
<i>Non-uniform Residual Stresses Measuring Using the Ring-Core Method</i> , R. Moharrami (University of Zanjan, Iran), M. Sadri	<i>Automatic meshing method for Finite Element models of residual stresses in welds</i> , K. Decroos (Catholic University of Leuven, Belgium), C. Ohms, R. Petrov, M. Seefeldt, L. Kestens
<i>Evaluation of residual stresses induced by high-speed drilling in aluminium alloys</i> , J.P. Nobre (University of Coimbra, Portugal), R. Guimarães, A.C. Batista, M.J. Marques, L.M. Coelho, A. Nau, B. Scholtes	<i>Residual stress in steel fusion welds joined using low transformation temperature (LTT) filler material</i> , J. Gibmeier (Karlsruhe Institute of Technology, Germany), J. Altenkirch, E. Obelode, A. Kromm, Th. Kannengiesser
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<i>Measuring in-depth residual stress gradients: the challenge of induction hardened parts</i> , V. Savaria (École de technologie supérieure, Montreal, Canada), F. Bridier, P. Bocher	<i>Neutron diffraction study and EPSC modelling of multi-pass TIG weld</i> , S. Sharma (Amity University Haryana, Gurgaon, India), Mark Turski, M. Fitzpatrick

<i>Technology and equipment for determination of residual stresses in welded structures based on the application of electron speckle-interferometry, L. Lobanov (E.O.Paton Electric Welding Institute, Kyiv, Ukraine), V. Pivtorak, V. Savitsky, G. Tkachuk</i>	<i>Residual stress and microstructures characterization in welded Al-Si-12Cu alloy, Z. Boumerzoug (University of Biskra, Algeria), C. Bouremel, V. Ji</i>
<i>Measuring surface residual stresses via the contour method, M.B. Toparli (The Open University, Milton Keynes, UK), M.E. Fitzpatrick, S. Gungor</i>	<i>Welding Residual Stresses in Tubular Joints, M. Farajian (Technical University of Braunschweig, Germany), Th. Nitschke-Pagel, K. Dilger</i>
<i>Residual stress measurement in coated plates using layer growing/removing methods: some extensions of Stoney's and Stäblein's equations, J. Kõo (Estonian University of Life Sciences, Tartu, Estonia), J. Valgur</i>	<i>Effects of residual stresses on the fatigue performance of welded steels with longitudinal stiffeners, J. Hensel (Technical University of Braunschweig, Germany), Th. Nitschke-Pagel, K. Dilger, S. Schönborn</i>
	<i>Identification of load induced inhomogeneous plastic deformations in Aluminium welds by diffraction methods, T. Nitschke-Pagel (Technical University of Braunschweig, Germany), M. Workowski, K. Dilger</i>
	<i>Residual stress measurement of UIT (Ultrasonic Impact Treatment) treated cruciform welded joints by neutron diffraction method, T. Suzuki (Nippon Steel Corporation, Japan), T. Okawa, H. Shimakuki, T. Nose, N. Ohta, H. Suzuki, A. Moriai</i>
	<i>Neutron diffraction scanning of residual stresses and their effect on fatigue strength of high strength steels welds, Ľ. Mráz (Welding Research Institute – Industrial Institute SR, Bratislava, Slovakia), L. Karlsson, P. Mikula, M. Vrána</i>

Topic 9: Stress Analysis – Diffraction Methods	Topic 10: Stress Analysis – Other Methods
<i>Problem of X-ray diffraction constants used in grazing incidence method for stress measurement, M. Marciszko (AGH-University of Science and Technology, Kraków, Poland), A. Baczański, M. Wróbel, W. Seiler, C. Braham, K. Wierzbowski</i>	<i>Analysis of stress formation in material removal processes by high speed photoelasticity imaging, B. Denkena (Leibniz University Hannover, Germany), B. Breidenstein, P. Helmecke</i>

<i>Analysis of texture depth distribution by energy-dispersive diffraction</i>, R.S. Coelho (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany), M. Klaus, Ch. Genzel, W. Reimers	<i>Residual stresses in rail-ends from the in-service insulated rail joints using neutron diffraction</i>, V. Luzin (Australian Nuclear Science & Technology Organisation, Lucas Heights, Australia), C. Rathod, D. Wexler, H Li, M. Dhanaseker
<i>Accuracy of Diffraction Stress Measurements and Effects of Preferred Orientation</i>, T. Gnäupel-Herold (University of Maryland, College Park, NIST Center for Neutron Research, Gaithersburg, USA), M.A. Iadicola, A.A. Creuziger, T. Foecke	<i>An attempt to find the empirical model between Barkhausen noise and stress</i>, A. Sorsa (University of Oulu, Finland), M. Ruusunen, K. Leiviskä, S. Santa-aho, M. Vippola, T. Lepistö
<i>Extended generalized $\sin^2 \psi$ method – Simultaneous texture and stress measurements: a solution for x-ray stress analysis in textured materials!</i>, A. Haase (GE Sensing & Inspection Technologies GmbH, Hürth, Germany), M. Klatt, A. Schafmeister, R. Stabenow, B. Ortner	
<i>Neutron residual stress surface Experimental and M. C. simulations</i>, J.R. Kornmeier (Technical University München, Garching, Germany), J. Saroun, J. Gibmeier, M. Hofmann	
<i>Multi-axial in-situ mechanical testing at the neutron time-of-flight diffractometer POLDI@PSI</i>, J. Repper (Paul Scherrer Institute, Villigen, Switzerland), M. Niffenegger, V. Davydov, S. van Petegem, W. Wagner, H. van Swygenhoven	
<i>Depth-resolved residual stress analysis with high-energy synchrotron X-rays using a conical slit cell</i>, P. Staron (Helmholtz-Zentrum Geesthacht, Germany), T. Fischer, N. Schell, M. Müller, A. Schreyer	
<i>Problems in Neutron Strain Measurement with Large Gauge Volume</i>, K. Akita (Japan Atomic Energy Agency), H. Suzuki, V. Luzin	
<i>Combining Laue microdiffraction and digital image correlation for improved stress field measurements with micrometer spatial resolution</i>, F. Zhang (Arts & Métiers ParisTech, Paris, France), O. Castelnau, M. Bornert, J. Petit, O. Robach, J.S. Micha, F. Hofmann, A. Korsunsky	