**BSSM 16th International Conference on Advances in Experimental Mechanics**

**Ruth Deech Building, St Anne’s College, University of Oxford**

**Programme**

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| **08:00** | **Tuesday 6th September 2022**  **Registration – Ruth Deech Building - Foyer** | | |
| **09:20** | **Introduction & Welcome**  **Tsuzuki Lecture Theatre**  **Conference Chair: Prof. James Marrow, University of Oxford** | | |
|  | **Tsuzuki Lecture Theatre** | **Seminar Room 7** | **Seminar Room 8** |
|  | **Session 1.1a Chair: Dr Mateusz Kopec** | **Session 1.1b Chair : Prof Ben Xu** | **Session 1.1c Chair: Prof Janice Dullieu-Barton** |
|  | **Metals & Microstructure I** | **Soft Matter & Textiles** | **Testing of Composite Materials I** |
| **09:40** | **Automated Pixel-wise Quantification of Slip System Activity Fields from DIC, Applied to Nanoscale Diffuse Slip**  J Hoefnagels, T Vermeij, JAC Verstijnen, RHJ Peerlings & MGD Geers  Eindhoven University of Technology, The Netherlands | **A Structural Gel Composite Sensor Enabled Underwater Mechano-Sensing with High Sensitivity**  Z Wang, H Zhou, D Liu, X Chen, F Chen & B Bin Xu  Northumbria University, UK | **Investigation of the Strength of Adhesively Bonded Composite Joints Using a Modified Arcan Fixture**  DJ Brearley, OT Thomsen, JM Dullieu-Barton & M Lakrimi  University of Bristol, UK |
| **10:00** | **Monitoring Intrinsic Heat Dissipation in Metals by Measuring the Second-Harmonic Phase of Temperature**  R Cappello, G Meneghetti, M Ricotta & G Pitarresi  University of Palermo, Italy | **Electrospun Fiber Based Non-Woven Textile for Extreme Thermal Management**  Z Qin, C Markwell, J Li & H Torun  Northumbria University, UK | **Damage Characterisation in Open Hole Composites using Finite Element and Complementary NDE Techniques**  N Chandarana  University of Bristol, UK |
| **10:20** | **A Comparison of Ductility Measurement Approaches for Ti Alloy Sheet**  W Heatman, J Fonseca & P Shanthraj  University of Manchester, UK | **Stretchable Conductive Fibres of Ultrahigh Tensile Strain and Stable Conductance Enabled by a Worm-Shaped Graphene Microlayer**  X Sun, F Sun, M Tian, L Qu & X Liu  University of Manchester, UK | **Analysis of Electronic Fringe Patterns for Identifying in-plane Fibre Waviness in Composite Laminates**  XN Li, PC Sung, EA Patterson, WC Wang & WJR Christian  University of Liverpool, UK |
| **10:40** | **Pure Shear Deformation and Failure of Ti6Al4V Alloy under Quasi-static, Medium and High Strain Rate Torsional Loading**  L H Zhang & D Townsend  University of Oxford, UK | **Design and Development of Soft Gel Based Sensor**  B Bin Xu, H Zhou & F Chen  Northumbria University, UK | **Strain-based Monitoring of Damage Creation during the Impact of Composite Materials**  YH Chai, WC Wang & WJR Christian  University of Liverpool, UK |
| **11:00** | **Refreshments – Ruth Deech Building - Foyer** | | |
|  | **Session 1.2a Chair: Prof Fabrice Pierron** | **Session 1.2b Chair : Dr Hari Arora** | **Session 1.2c Chair: Dr Yevgen Gorash** |
|  | **Materials Testing 2.0** | **Biomaterials & Biomechanics** | **Fatigue and Fracture I** |
| **11:30** | **A Thermomechanical MT2.0 test for PMMA**  Q. Marcot, T Fourest, B Langrand & F Pierron  ONERA, France | **Spatially Distributed Circumferential Strain Measurement in an Artificial Annulus Fibrosus using Fibre Bragg Gratings**  M. Godfrey, S Jantzen, A Dickinson, C. Holmes, A Taylor & M Browne  University of Southampton, UK | **Multiaxial Crack Growth Prediction**  B Sheen  Imperial College London, UK |
| **11:50** | **A Novel Material Testing 2.0 Test for Bone**  P. Tavianatou, L Fletcher & F Pierron  University of Southampton, UK | **An Ultra-High-Speed Imaging Study of Cell Deformation and Mechanobiology from Ultrasonic Stimulation**  M. Ballard, A Marek & F. Pierron  University of Southampton, UK | **On the Correlation Between the Second-Harmonic of Temperature and Crack-Closure**  G. Pitarresi & R. Cappello  University of Palermo, Italy |
| **12:10** | **Methodology for the Automated Spatial Mapping of Heterogeneous Elastoplastic Properties of Welded Joints**  R. Hamill, A Marek, A Harte & F Pierron  University of Southampton, UK | **Experimental Mechanical Modelling of the Mitral Valve**  S. Javadpour, F O’Brien & C Conway  Royal College of Surgeons in Ireland, Ireland | **Photomechanical Experimental Methods to Characterize the Dynamic Crack Speed in Brittle Materials**  P Forquin, M Sapay & Y Duplan  Université Grenoble Alpes, France |
| **12:30** | **A Methodology to Compare the Performance of Material Models in the Framework of Material Testing 2.0**  A Peshave, F Pierron, P Lava, D Moens, and D Vandepitte  KU Leuven, Belgium | **Measuring Microneedle Penetration into Skin using DIC and Micro-CT**  R Joyce, S Evans, K Rankin, M Potts, S Coulman, J Birchall & R Pullin  Cardiff University, UK | **Thermal Emissions-Based Structural Health Monitoring System for Crack Detection**  K Amjad, P Lambert, CA Middleton, RJ Greene & EA Patterson  University of Liverpool & UK Atomic Energy Authority, UK |
| **12:50** | **Lunch – St Anne’s Dining Hall** | | |
| **13:50** | **Plenary Session – Tsuzuki Lecture Theatre Chair: Dr Daniel Mulvihill**  **Multi-Beam Laboratory for Engineering Microscopy**  Prof. Alexander Korsunsky, University of Oxford, UK | | |
| **14:50** | **Refreshments – Ruth Deech Building - Foyer** | | |
|  | **Session 1.3a Chair: Prof Pascal Forquin** | **Session 1.3b Chair: Dr Catrin Davies** | **Session 1.3c Chair: Dr Daniel Mulvihill** |
|  | **Impact, Blast and High Strain Rate** | **Techniques for Additive Manufactured Materials** | **Novel Experimental Techniques I** |
| **15:20** | **Explosively Driven Ball Bearings: Flight Behaviour and Ball Bearing Damage**  G S Langdon, R Qi, TJ Cloete, S. Chung Kim Yuen  University of Sheffield, UK | **Residual Stress Distributions in Laser Powder Bed Fusion Steels Considering Displacive Phase Transformation**  D Yang, Y Chen, FSHB Freeman, MJ Roy, I Todd & PJ Withers  University of Manchester, UK | **Non-destructive Ultrasonic Measurement of Longitudinal Stress in Railway Tracks**  G Nicholas, J Hill, A Gower, R Lewis & RS Dwyer-Joyce  University of Sheffield, UK |
| **15:40** | **Strain Rate Dependent Micro-plasticity of Metal-Organic Framework Glasses**  RN Widmer, AM Bumstead, M Jain, TD Bennett & J Michler  Alemnis AG & Empa Switzerland, Switzerland | **Understanding the Compressive Behaviour of Additively Manufactured Lattices**  M Stagno Navarra, C Burson-Thomas, AR Hamilton & M Browne  University of Southampton, UK | **Measurement of the Whole Strain Tensor by a 6-axis Embedded Sensor**  MLM François & Y Lecieux  University of Nantes & CNRS, France |
| **16:00** | **Material Parameters Identification Based on Dynamic Tests and Synthetic Images**  Y Amani, T Fourest, P Almeida & B. Langrand  DMAS/ONERA, France | **Microstructure, Mechanical Testing, and Modeling of Wire Arc Additively Manufactured Stainless Steel**  JPM Hoefnagels, L Palmeira Belotti, T van Nuland, JAW van Dommelen & MRD Geers  Eindhoven University of Technology, The Netherlands | **Verification of Mirror Assisted Full-Field Imaging for Large Scale Structure Testing**  HL Leung, JM Dulieu-Barton & OT Thomsen  University of Bristol, UK |
| **16:20** | **Investigating High-speed Liquid Impingement with Full-field Measurements**  CB Burson-Thomas, L Fletcher, R Wellman, TJ Harvey, RJK Wood & F Pierron  University of Southampton, UK | **Fabrication of Copper-aluminium FGMs Through Wire and Arc Additive Manufacturing**  FG Cunha, VR Duarte, TG Santos, J Xavier & F Pierron  NOVA University Lisbon, Portugal |  |
| **17:30** | **Welcome Drinks Reception – Ruth Deech Building – Foyer, St. Anne’s College, Oxford** | | |

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|  | **Wednesday 7th September 2022** |  |  |
|  | **Tsuzuki Lecture Theatre** | **Seminar Room 7** | **Seminar Room 8** |
|  | **Session 2.1a Chair: Dr Neha Chandarana** | **Session 2.1b Chair: Dr Daniel Mulvihill** | **Session 2.1c Chair: Dr Ceri Middleton** |
|  | **Testing of Composite Materials II** | **Tribology and Contact** | **Data Driven Mechanics for Prediction & Validation** |
| **09:00** | **An Experimental Investigation of Residual Stress in Rapidly Cured Composites**  B Seers, RA Tomlinson & P Fairclough  University of Sheffield, UK | **Linking Material Strain and Friction to Triboelectric Charge Transfer**  JL Armitage, A Ghanbarzadeh, MG Bryant, A Neville  University of Leeds, UK | **Assessing the Quality of Sparse Datasets for use in Validation**  C McElvaney, EA Patterson & K Dvurecenska  University of Liverpool, UK |
| **09:20** | **The Effect of the Impact Site on Repaired Carbon-Fibre Reinforced Polymer Panels**  ZEC Hall, J Liu, R Brooks, Y Ding, AM Joesbury, LT Harper, H Liu, BRK Blackman, AJ Kinloch & JP Dear  Imperial College, London, UK | **Systematic Contact Mechanics Investigation of Micro-patterned Triboelectric Nanogenerator**  C Kumar, J Perris, G Min, N Gadegaard, Y Xu, R Dahiya, DM Mulvihill  University of Glasgow, UK | **Experimental Validation of the EUCLID approach for Unsupervised Discovery of Hyperelastic Constitutive Laws**  M Ricci, P Carrara, M Flaschel, S Kumar, S Marfia & L De Lorenzis  Roma Tre University, Italy |
| **09:40** | **Effect of Fibre Microstructure on Kinking in Unidirectional Fibre Reinforced Composites Imaged in Real Time under Axial Compression**  K Nelms, Y Wang, Y. Chen, A Rack, S Rawson, E Maire & PJ Withers  University of Manchester, UK | **The Static Friction Peak in Frictional Hysteresis Loops**  SB Jaber, Y Xu, ME Kartal, N Gadegaard & DM Mulvihill  University of Glasgow, UK | **One-shot Characterization of Material Rate-Sensitivity from HS Images**  R Seghir, A Vinei, J Rethore, J Berthe & G Portemont  GeM, Centrale Nantes, France |
| **10:00** | **Progress in Hybrid Testing of Composite Structures**  T Laux, OT Thomsen, JM Dullieu-Barton  University of Bristol, UK | **Measuring the Compressive Modulus of Soft Thin Films Using the Elastic Foundation Model**  CB Burson-Thomas, M Godfrey & M Browne  University of Southampton, UK | **Validation of Damage Models using Full-Field Data of Open-Hole Composite Specimens**  RC Bullock, T Laux, OT Thomsen, JM Dullieu-Barton  University of Bristol, UK |
| **10:20** | **Exhibitor Introductions Chair: Dr Hari Arora** | | |
| **10:40** | **Refreshments and EMex22 Exhibition – Ruth Deech Building – Foyer B**  **Exhibitors:**  **Alemnis AG, Correlated Solutions, GOM, Hottinger Bruel & Kjaer UK, Instron, iX-Cameras, LaVision UK, MatchID, Photonlines, Photo-Sonics International, Photron, Quantum Design UK and Ireland, Shimadzu, Specialised Imaging & Techni Measure** | | |
|  | **Session 2.2a Chair: Dr Ceri Middleton** | **Session 2.2b Chair: Prof Giuseppe Pitarresi** | **Session 2.2c Chair: Dr Geir Olafsson** |
|  | **Smarter Testing of Aerospace Structures** | **Fatigue and Fracture II** | **Novel Experimental Techniques II** |
| **11:10** | **Challenges to overcome for relying on virtual testing in aerospace**  CA Middleton & EA Patterson  University of Liverpool, UK | **Technical Challenges in Accelerated Very High Cycle Fatigue Testing of Structural Steels and Welds**  Y Gorash, T Comlekci, G Styger, J Kelly, F Brownlie & L Milne  University of Strathclyde, UK | **Probing the Stability Landscape of Thin-Walled Composite Cylinders**  RL Lincoln, C.J. McInnes, M. O’Leary, F. Morabito, A. Pirrera, R.M.J. Groh, S. Akromah, T. Brereton, A. Chen, E. Georgiou, J. Griffith, I. Lee, C. Stewart, M. Veyrat Cruz-Guzman, T. Wilcox, L. Zhu, M.L. Longana  University of Bristol, UK |
| **11:30** | **Ontologies for Experimental Mechanics**  JL Hippolyte, P. Duncan, M Bevilacqua & M. Chrubasik  National Physical Laboratory, UK | **Mesoscale Ultrasonic Fatigue with Non-Contact Fatigue Crack Detection Method & Environmental Testing Capabilities**  R Scales, J Gong & AJ Wilkinson  University of Oxford, UK | **The industrial Applications of a Rapid Reflection Photoelastic Coating**  WH Fraser, RA Tomlinson & AJ Parnell  University of Sheffield, UK |
| **11:50** | **Application of an Enhanced Validation Protocol to an Industrial Structure**  K Dvurecenska & EA Patterson  University of Liverpool, UK | **Evaluation of the Strain Rate Effect in UFT Testing of Structural Steels**  L Milne, Y Gorash, T Comlekci & D MacKenzie  University of Strathclyde, UK | **Approximating Loads in Kick Scooters with Measured Strain**  S Pearson, E Tarleton & F Hofmann  University of Oxford, UK |
| **12:10** | **From Sensor Placement in the Context of CAD to Measured Data: Traceability through 3DEXPERIENCE**  A Goff & D Sheppard  Dassault Systèmes UK Limited, UK | **Digital Imaging Correlation for Strain Control during Fatigue Cycling**  D Coon, M Maric, C Palmer, D Hollis & A Wisbey  Jacobs, UK & LaVision, UK | **Measuring Young's Modulus of Polymer Sheets by Ultrasonic Lamb Waves**  H Lu & G Menary  Queens University Belfast, UK |
| **12:30** | **Plenary Session – Tsuzuki Lecture Theatre Chair: Prof Johan Hoefnagels**  **BSSM Best Paper in ‘Strain’ Fylde Prize for 2021**  **Combined Thermographic Phosphor and Digital Image Correlation (TP+ DIC) for Simultaneous Temperature and Strain Measurements." Strain (2021): e12415**  Elizabeth MC Jones, Amanda R. Jones, and Caroline Winters. Sandia National Laboratories, USA | | |
| **13:00** | **Lunch and EMex22 Exhibition – Ruth Deech Building - Foyer B**  **Exhibitors:**  **Alemnis AG, Correlated Solutions, GOM, Hottinger Bruel & Kjaer UK, Instron, LaVision UK, MatchID, Photonlines, Photo-sonics International, Photron, Shimadzu, Quantum Design UK and Ireland, Specialised Imaging & Techni Measure** | | |
| **14:00** | **Plenary Session – Tsuzuki Lecture Theatre Chair: Dr Neha Chandarana**  **BSSM Young Stress Analyst Competition Finalists:**     1. **Percutaneous Screws for the Treatment of Long-Bone Fracture Non-Union**   Jack Chester, Proctor & Chester Measurements, UK   1. Integrated Experimental-Numerical Testing of “2D” Steel Microstructures   Tijmen Vermeij, 1Eindhoven University of Technology, The Netherlands   1. Subsurface Damage Assessment in Composite Laminates Using a Novel Full Field Imaging Technique.   Rafael Ruiz-Iglesias,, University of Bristol, UK   1. **Measurement of 3D Shroud Contact Forces in Forced Vibration Testing of Shrouded Turbine Blade**   Rizwan Ahmed, Politecnico di Torino, Italy | | |
| **15:20** | **Refreshments and EMex Exhibition – Ruth Deech Building – Foyer B** | | |
| **15:50** | **Plenary Session – Tsuzuki Lecture Theatre Chair: Andrew Ramage**  **BSSM Measurements Lecture 2022**  **Light Weighting Aircraft Structures for Greener Aviation – Design, Optimisation and Structural Health Monitoring**  Prof. Carol Featherston, Cardiff University, UK | | |
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| **19:00** | **Chairman’s Gala Dinner and Awards Ceremony – Mansfield College Chapel, Mansfield College, Oxford** | | |

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|  | **Thursday 8th September 2022** |  |  |
|  | **Tsuzuki Lecture Theatre** | **Seminar Room 7** | **Seminar Room 8** |
|  | **Session 3.1a Chair: Prof Johan Hoefnagels** | **Session 3.1b Chair: Prof Genevieve Langdon** | **Session 3.1c Chair: Prof Ole Thomsen** |
|  | **Metals and Microstructure II** | **Dynamic Behaviour of Materials** | **Fracture and Failure of Composites** |
| **09:00** | **Effect of Static Magnetic Field on High Temperature Mechanical Behaviour of Grade P91 Steel**  M Mokhtarishirazabad, A Harte, Y Wang & M Mostafavi  University of Bristol, UK | **Application of Ultra-high Speed Imaging to Understand Surgical Ultrsonic Cutting**  A Marek & F Pierron  University of Southampton, UK | **The Effect of Moisture Ingress on Mode-I Fracture Toughness of Carbon/epoxy Laminates with Hybrid Toughening Using Core-shell Rubber Particles and Thermoplastic Veils**  S Wang, KB Katnam, Z Zou & P Potluri  University of Manchester, UK |
| **09:20** | **Microscale Damage Prediction enables High-Resolution in-situ Measurement and CP Simulation of Plasticity-to-damage in Dual-Phase Steel**  T Vermeij, CJA Mornout, NA van de Straat, V Rezazadeh & JPM Hoefnagels  Eindhoven University of Technology, The Netherlands | **An Image Based Inertial Impact Test for the Characterization of Viscoelastic Materials**  A Matejunas, L Fletcher & L Lamberson  UK Atomic Energy Authority, UK | **Impact of Repaired CFRPs: Ultrasonic Evaluation and Microscopic Analysis of Internal Damage**  RA Brooks, J Liu, ZEC Hall Y Ding, AM Joesbury, LT Harper, H Liu, BRK Blackman, AJ Kinloch & JP Dear  Imperial College London, UK |
| **09:40** | **Recent Development in Sheet Metal Forming of Titanium Alloys**  M Kopec, L Wang, K Wang, X Liu & ZL Kowalewski  Polish Academy of Sciences & Imperial College London, UK | **Characterisation of the Dynamic Compressive Behaviour of Ceramic using Planar Plate-impact and Shockless Plate-impact Experiments**  J Genevois, P Forquin  Université Grenoble Alpes, France | **Identifying Impact Fatigue Damage in Carbon Fiber Composites Using Infrared Deflectometry and the Virtual Fields Method**  I Mendoza & L Lamberson  Colorado School of Mines, USA |
| **10:00** |  | **Investigation of the Strain-rate Sensitivity of two Alumina Ceramics Thanks to Shockless Plate-impact Spalling Tests**  P Forquin, J Genevois, H Chauhan & A Coscuella  Université Grenoble Alpes, France |  |
| **10:20** | **Refreshments – Ruth Deech Building Foyer** | | |
| **10:40** | **Plenary Session – Tsuzuki Lecture Theatre Chair: Dr Hari Arora**  **Image Analysis Techniques for Novel Analysis of Creep Tests**  Dr Catrin Mair Davies, Imperial College London, UK | | |
|  | **Session 3.2a Chair : Prof James Marrow** | **Session 3.2b Chair: Dr Dave Hollis** | **Session 3.2c Chair: Dr Charchit Kumar** |
|  | **Infrared & Thermal Methods** | **Digital Image Correlation I** | **Testing of Polymers** |
| **11:40** | **Characterisation of Complex Composite Geometries using Thermal Imaging**  G Olafsson, R. Ruiz-Iglesias 2, O.T. Thomsen3 and J.M. Dulieu-Barton4  University of Bristol, UK | **Evaluation of the Reliability of 2D and 3D DIC Creep Deformation**  E Muyupa, HK Kim & J Bouchard  The Open University, UK | **Evaluating the Effect of the Filler Amount on the Crack Growth Behavior of Natural Rubber and the Strain Distribution**  H Mitamura, K Iizuka & S Yoneyama  Aoyama Gakuin University, Japan |
| **12:00** | **Thermographic Non-destructive Assessment for Impacted Flax Fiber-reinforced Composite Laminates**  K Srihi, N Massé, A El-Hafidi, J Rousseau & B Martin  Université Bourgogne Franche-Comté, France | **Digital Image correlation for Strain Measurement on Notched and Welded Specimens**  T Kosco & V Chmelko  Slovak University of Technology in Bratislava, Slovakia | **Energy Harvesting Performance of Polymer Composites Dispersed Potassium Sodium Niobate Piezoelectric Particles**  K Maruyama, X Liu, Y Kawakami, H Kurita & F Narita  Tohoku University, Japan & University of Manchester, UK |
| **12:20** | **Study of Thermo-mechanical Properties of NiCoCrAlY Bond Coats using Microtensile Samples and 2D-DIC**  S Kumar, P Kumar, S Sampath & V Jayaram  Indian Institute of Science, Bangalore, India | **An Automated High-Resolution Digital Image Correlation System for Capturing Fatigue Crack Growth Mechanisms**  E Breitbarth, F Paysan, T Strohmann, D Melching & G Requena  Institute of Materials Research, Germany | **Syntheses and experimental characterisations of carbon nanotubes-enhanced natural rubbers for wave energy harvesting applications**  M Hossain, Ali Esmaeili, Ian Masters  Swansea University, UK |
| **12:40** | **Development of Infra-red Camera Models to Assess Accuracy and Precision in Thermoelastic Stress Analysis**  I Jiménez-Fortunato, C Devivier & JM Dulieu-Barton  University of Bristol, UK | **Measurement Discontinuous Strain Around the Dissimilar Materials Interface Using Global Digital Image Correlation**  Y Tsujii, N Iketa, K Lizuka & S Yoneyama  Aoyama Gakuin University, Japan |  |
| **13:00** | **Lunch – St Anne’s College Dining Hall** | | |
|  | **Session 3.3a Chair: Prof Genevieve Langdon** | **Session 3.3b Chair : Prof James Marrow** | **Session 3.3c Chair : Dr Charchit Kumar** |
|  | **Materials in Extreme Dynamic Environments** | **X-Ray Tomography & Radiography** | **Digital Image Correlation II** |
| **14:00** | **Application of the Virtual Fields Method to Reconstruct Full-Field Surface Pressures During the Dynamic Response of Blast Loaded Steel Plates**  R Kaufmann, SN Olufsen, E Fagerholt & V Aune  Norwegian University of Science and Technology, Norway | **Evaluation of Digital Volume Correlation (DVC) Applicability in Silicon Dioxide (SiO2) Particle-doped Carbon Fibre Reinforced Polymers using *In Situ* Synchrotron Radiation Computed Tomography (SRCT)**  Y Lee, E. Schöberl1**,** K. Ball1**,** C. Furtado2,3**,** P. Patel2**,** A. Arteiro3**,** M. Majkut4**,** L. Helfen5**,** B. Wardle2**,** T. Tsuneo6**,** F. Yasuhiro6**,** S. Naoki6**,** M. Jalalvand1**,** M.N. Mavrogordato1**,** S.M. Spearing1**,** I. Sinclair1  University of Southampton, UK, 2Massachusetts Institute of Technology, USA 3University of Porto, Portugal 4European Synchrotron Radiation Facility, France 5Institut Laue-Langevin, France 6Mitsubishi Chemical Corporation, Japan | **Feasibility of In-situ Elastic Mechanical Characterisation of Masonry Using the Virtual Fields Method**  MRW Judd, M Sangirardi & S Acikgoz  University of Oxford, UK |
| **14:20** | **Experimental Determination of Initial Velocity Distribution in Blast Loaded Plates**  R Curry, GS Langdon, JP Tyler, S Clarke & A Tyas  University of Sheffield, UK | **Projection-DIC Analysis of Projected 3D data for a 6xxx Aluminium Alloy Under Plane Strain Tension Imaged by *in situ* Absorption Contrast Tomography**  M Gille, H Proudhon, J Oddershede & Morgeneyer  MINES Paris - PSL, France | **Validating Finite Element Models of Metallic Specimens during V-bending and Relaxation**  Q Lin, Z Guan & WJR Christian  University of Liverpool, UK |
| **14:40** | **Ballistic Performance of Wadded Angle-interlock Fabric Panels for Ballistic Helmet**  M Yang & X Chen  University of Manchester, UK | **Strain Mapping in Graphite and MAX phase during High-Temperature Disc Compression via In-Situ Synchrotron X-ray Radiography and Diffraction**  R Whybrow, M Williamson & TJ Marrow  University of Oxford, UK | **Determining the Modulus of Elasticity of Concrete using Digital Image Correlation**  Tick Boon Loh  Newcastle University in Singapore, Singapore |
| **15:00** | **Nanomechanical response of surface and coatings in extreme condition: Temperature and strain rate dependence**  H Zhang, M Gee & AT Fry  National Physical Laboratory (NPL), UK |  |  |
| **15:20** | **Closing Plenary Session – Tsuzuki Lecture Theatre**  **Conference Chair: Prof. James Marrow**  **Announcement of BSSM 17th International Conference on Advances in Experimental Mechanics 2023 – University of Glasgow**  Conference Chair: Dr Daniel Mulvihill, University of Glasgow, Glasgow, UK  **Wednesday 30th August - Friday 1st September 2023** | | |
| **15:30** | **Refreshments & Conference Close – Ruth Deech Building - Foyer** | | |