BSSM 13th International Conference on Advances in Experimental Mechanics

Grand Harbour Hotel, Southampton

Final Programme

08:00	**Wednesday 29th August 2018** **Registration – Mayflower Suite Foyer, Grand Harbour Hotel, Southampton** **08:30 Arrival Tea and Coffee**		
09:30	**Introduction & Welcome - Mayflower 2** **(Geir Olafsson)** **Conference Chair: Simon Quinn, University of Southampton**		
	Mayflower 2 (Geir Olafsson)	**Mayflower 1 (Alex Marek)**	**Mayflower 3 (Irene Jimenez Fortunato)**
	Session 1.1a Chair: Keren Shemtov-Yona	**Session 1.1b Chair: Leslie Lamberson**	**Session 1.1c Chair: Bruce Drinkwater**
	Dental Biomechanics 1	**High Strain Rate 1 – PhotoDyn session**	**NDE**
09:45	Keynote: Cyclic fatigue tests and their translational implications for survival of reconstructions in dentistry Mutlu Özcan, University of Zurich, Switzerland	Novel image-based inertial high strain rate tests: an overview Fabrice Pierron[1], F.M. Davis[1], L. Fletcher[1], X. Régal[1], R. Seghir[2], J. Van Blitterswyk[1], [1]University of Southampton, UK, [2]Ecole Centrale de Nantes, France	Mode filtering in frequency wavenumber domain for damage detection using local wavenumber estimation Frederick Purcell, R. Pullin, D. Crivelli, R. Marks, Cardiff University, UK
10:05		Off-axis testing of fibre composites at high strain rates using an image-based inertial impact test Lloyd Fletcher, J. Van-Blitterswyk, F. Pierron, University of Southampton, UK	Numerical study of Lamb wave mixing for micro-crack detection in plate Hongtao Lyu, J. Jiao, C. He, B. Wu, Beijing University of Technology, China
10:25	The failure envelope concept and stress shielding in the bone-dental implant system Daniel Rittel, K. Shemtov-Yona, R. Korabi, A. Dorogoy, Technion, Israel	An image-based inertial impact test for high strain rate interlaminar shear properties of fibre-reinforced polymer matrix composites Jared Van Blitterswyk, L. Fletcher, F. Pierron, University of Southampton, UK	Location of cracks occurring in an additive manufacturing process by acoustic emission Stephen Ball, Cardiff University, UK
10:45	Bursting pressure and circumferential root strains in ex-vivo model of vertical root fracture Tamar Brosh, Z. Metzger, R. Pilo, Tel Aviv University, Israel	Image-based ultrasonic fatigue testing of composites Xavier Régal[1], R. Seghir[2], M. Comport[1], F. Pierron[1], University of Southampton, UK, [2]Ecole Centrale de Nantes, France	Study on the mechanism of impact load on immune cells H. Yang, Dasen Xu, J. Li, Northwestern Polytechnical University, China

11:05	**Refreshments – Mayflower Suite Lounge**		
	Mayflower 2 (Michael Comport)	**Mayflower 1 (Sam Parry)**	**Mayflower 3 (Saran Ramachandran)**
	Session 1.2a Chair: Daniel Rittel	**Session 1.2b Chair: Fabrice Pierron**	**Session 1.2c Chair: David Nowell**
	Dental Biomechanics 2	**High Strain Rate 2 - PhotoDyn session**	**Fatigue and Fracture**
11:30	Load response of the human masticatory system during chewing: A multi-body musculoskeletal modelling study David Ackland[1], D.L. Robinson[1], H. Saini[2], P.V.S. Lee[1], O. Röhrle[2], [1]University of Melbourne, Australia, [2]Stuttgart University, Germany	Inertial impact tests to characterize the high strain rate response of PMMA Frances Davis, L. Fletcher, F. Pierron, University of Southampton, UK	Assessment of extremely low cycle fatigue behaviour of high strength steel using 3D DIC measurements David Asquith[1], V.P. Pasialis[2], [1]Sheffield Hallam University, [2]Sheffield Forgemasters, UK
11:50	A novel methodology for analyzing strains developed in endodontically treated teeth rehabilitated by post-core–crown Raphael Pilo, Z. Metzger, T. Brosh, Tel-Aviv University, Israel	Determination of high strain rate properties of metals using the virtual fields method Aleksander Marek, F.M. Davis, F. Pierron, University of Southampton, UK	Critical cast iron wastewater assets: predicting performance to prevent failure Governor Ugoh[1], M. Mulheron[1], R. Cunningham[2], J. Farrow[3], D. Jesson[1], [1]University of Surrey, [2]Thames Water Utilities, [3]Jeff Farrow Associates, UK
12:10	Numerical investigations of edentulous patients with complete denture and implant-supported overdenture Istabrak Hasan[1], A. Lohmann[1], L. Keilig[1], F. Heinemann[2], C. Bourauel[1], [1]University of Bonn, [2]University of Greifswald, Germany	Image-based stress field reconstruction Rian Seghir[1], F. Pierron[2], L. Fletcher[2], [1]Ecole Centrale de Nantes, France, [2]University of Southampton, UK	Fatigue analysis of a feedwater and condensate system nozzle of a boiling water reactor S. Pérez-Montejo[1], G. Soto-Mendoza[1], Luis Hernández-Gómez[1], P. Ruiz-López[2], L.G. Carbajal-Figueroa[1], J.A. Beltrán-Fernández[1], G.M. Urriolagoitia Calderón[1], [1]Instituto Politécnico Nacional, [2]Comisión Nacional de Seguridad Nuclear y Salvaguardias, Mexico
12:30	Numeric simulation of long-term orthodontic tooth movement using the finite element method Noriaki Yoshida[1], R. Hamanaka[2], J.Y. Tominaga[1], [1]Nagasaki University, [2]Nagasaki University Hospital, Japan	Using full-field measurements to improve understanding of water droplet erosion of aeroengine fan blades Charles Burson-Thomas, T.J. Harvey, L. Fletcher, F. Pierron, R.J.K Wood, University of Southampton, UK	J-integral evaluation of ductile material using X-ray tomography and digital volume correlation (DVC) Simon Tonge, A.F. Cinar, C. Simpson, C. Reinhard, T Connolley, T.J. Marrow, M. Mostafavi, University of Bristol

12:50	Biomechanical analysis of the mandibular front in presence of a local gingival recession in combination with a tertiary crowding S. Reimann, D. Baghdadi, C. Reichert, L. Keilig, Christoph Bourauel, University of Bonn, Germany	An experimental method for determination of dynamic mechanical behavior of materials at high temperatures with high speed imaging Tao Suo[1], C. Zhang[1], Q. Deng[1], Y. Li[1], M. Chen[2], [1]Northwestern Polytechnical University, [2]First Affiliated Hospital of Xi'an Jiaotong University, China	Crack closure modification in dwell-fatigue Pengbo Qi[1], D. Nowell[1,2] and E. Salvati[1], [1]University of Oxford, [2]Imperial College London, UK
13:10	**Lunch – Marco Pierre White Restaurant**		
14:10	**Plenary Session – Mayflower 2** **Chair: Simon Quinn** **(Rene Kaufmann)** **The engineer's perspective on dynamic shear localization** **Professor Daniel Rittel, Technion, Israel**		
15:10	**Refreshments – Mayflower Suite Lounge**		
	Mayflower 2 (Rene Kaufmann)	**Mayflower 1 (Alex Marek)**	**Mayflower 3 (Jack Callaghan)**
	Session 1.3a Chair: David Ackland	**Session 1.3b Chair: Lloyd Fletcher**	**Session 1.3c Chair: Janice Barton/Kheng Lim Goh**
	Dental Biomechanics 3	**High Strain Rate 3**	**Composites**
15:35	Modelling the effect of bone-implant contact on dental implant pullout and torque removal tests K. Shemtov-Yona, A. Dorogoy, Daniel Rittel, Technion, Israel	Rate-dependent compressive behavior of open-cell elastomeric foam S. Koumlis, A. Kelbaugh, Leslie Lamberson, Drexel University, USA	Resolving the effects of vent hole on the strength of damaged composite laminates in resin-injection repair method W.L. Lai[1], H. Saaedipour[2], Kheng Lim Goh[1], [1]Newcastle University in Singapore, [2]Republic Polytechnic, Singapore
15:55	Changes in the biomechanical properties of the periodontal ligament after orthodontic treatment – a combined clinical, experimental and numerical study Christoph Bourauel, A. Konermann, R. Al-Malat, J. Skupin, S. Reimann, L. Keilig, University of Bonn, Germany	A dynamic testing method for flexible thin film materials Haibin Zhu, S. Ma, Beijing Institute of Technology, China	Acoustically triggered ultra-high speed camera system for composites failure imaging Steven Rae, D. Minton, S.R. Hallett, University of Bristol, UK
16:15	Impact of machining process on the flexural strength of a composite resin block for CAD/CAM dental restorations H. Issaoui, H. Fron-Chabouis, Aurélie Benoit, Université Paris Descartes, France	Thermo-mechanical characteristics of adiabatic shear band of pure titanium under impact loading Yazhou Guo[1], Q.C. Ruan[1], J.N. Lu[1], B. Hu[1], X.H, Wu[1], S.X. Zhu[2], H.S. Chen[2] and Y.L. Li[1], [1]Northwestern Polytechnical University, [2]Beijing Institute of Technology, China	The effects of fibre architecture on water absorption induced degradation in CFRP laminates Faisel Almudaihesh, R. Pullin, K. Holford, M. Eaton, Cardiff University, UK

16:35	The detection threshold of non-contacting laser profilometry and characterisation of microscale surface changes in natural human enamel following citric acid-mediated attack Petros Mylonas[1], T. Bull[2], R. Moazzez[1], A. Joiner[2], D. Bartlett, [1]Kings College London, [2]University of Southampton, [3]Unilever Oral Care, UK	Equivalent shock environment test conditions based on shock damage mechanisms X.J. Zhu, H.B. Wang, Muchun Yu, B. Li, Z.J. Zhang, Z.J. Nangong, X.J. Dai, L. Wang, China Academy of Launch Vehicle Technology, China	Experimental characterisation and modelling of the nonlinear, pressure sensitive behaviour of UD composites under multiaxial loading Tobi Laux[1], K.W. Gan[2], J.M. Dulieu-Barton[1], O.T. Thomsen[1], [1]University of Southampton, UK, [2]University of Southampton Malaysia Campus, Malaysia
16:55	Mechanical characterisation of the temporomandibular joint disc through local compression and traction Lara Tappert[1], A. Baldit[1], R. Do Nascimento[1,2], P. Lipinski[1], R. Rahouadj[1], [1]LEM3 – ENIM, University of Lorraine, France, [2]University of São Paulo, Brazil	A new method for dynamic shear-compression loading on cellular materials Bing Hou[1], H.X. Chen[1], H. Zhao[2], Y.L. Li[1], [1]Northwestern Polytechnical University, China, [2]LMT, ENS-Cachan, France	Full-field evaluation of the load response of a wind turbine blade substructure Jack Callaghan[1], J.M. Dulieu-Barton[1], O.T. Thomsen[1], S. Laustsen[2], [1]University of Southampton, UK, [2]Siemens Gamesa Renewable Energy, Denmark
18:00	**Welcome reception and tour of facilities, University of Southampton** **Coaches at 17:30 from Grand Harbour Hotel, return from the University at 20:30**		

	Thursday 30th August 2018		
08:30	**Arrival Tea and Coffee – Mayflower Suite Foyer**		
	Mayflower 2 (Rene Kaufmann)	**Mayflower 3 (Michael Comport)**	
	Session 2.1a Chair: Noriaki Yoshida	**Session 2.1b Chair: Pascal Lava**	
	Dental Biomechanics 4	**DIC Application 1**	
09:00	In situ indentation of dental composite materials coupling micro computed tomography and digital volume correlation M. Gallo[1], E. Maire[1], N. Brulat-Bouchard[2], Yannick Tillier[2], [1]INSA Lyon, [2]MINES ParisTech, France	Comparison of DIC measurements and FEM predictions for thermally induced deformation of a stainless steel tube Shirley Eseigbe, R. Taylor[2], E.A. Patterson[1], [1]University of Liverpool, [2]University of Manchester, UK	
09:20	Numerical evaluation of the application of high performance polymers as a framework material in dental prosthetics Ludger Keilig, H. Stark, C. Bourauel, University of Bonn, Germany	Can a pre-speckled encasement be used for vacuum loading, parallel to assessment via digital image correlation? Scott Matthews[1], D. Jesson[1], P. Smith[1], M. Helliker[2], L. Beavis[2], B. James[2], [1]University of Surrey, [2]Dstl, UK	
09:40	X-ray microtomography characterization and mechanical analysis of sealing defects within all-ceramic dental restorations Kyo Shindo[1], N. Schmitt[2] and E. Vennat[1,3], [1]MSSMat, Centrale-Supélec, [2]LMT, ENS Paris-Saclay, [3]Université Paris Descartes, France	A framework for non-deterministic model validation using full-field measurements Antonios Alexiadis, S. Ferson, E.A. Patterson, University of Liverpool, UK	
10:00	The mechanical reliability of ceramic dental implants Keren Shemtov-Yona[1], N. de Basso[2], M. Özcan[3] and D. Rittel[1], [1]Technion, Israel, [2]Private Practice, Stockholm, Sweden, [3]University of Zurich, Switzerland	Local deformation behaviour of pure magnesium under dynamic loading P. Malchow, S. Ravindran, B. Koohbor, Addis Kidane, University of South Carolina, USA	
10:20	Estimation of dental implant stability: comparison between resonance frequency analysis and a quantitative ultrasound technique R. Vayron, Guillaume Haiat, CNRS, France	A full-field approach to characterizing acoustoplasticity Colin Souza, M. Lucas, University of Glasgow, UK	
10:40	**Exhibitor Introductions – Mayflower 2**	**Chair: Janice Barton**	

11:00	**Refreshments and Exhibition – Mayflower 1 and Mayflower Suite Lounge**		
	Mayflower 2 (Irene Jimenez Fortunato)	**Mayflower 3 (Alex Marek)**	
	Session 2.2a Chair: Mutlu Özcan	**Session 2.2b Chair: Addis Kidane**	
	Dental Biomechanics 5	**DIC Application 2**	
11:30	Characterization of the dentin microstructural components: a FIB-SEM analysis Ursule Muendi[1], T. Reiss1, E. Dursun[2,3], E. Vennat[1,2], [1]CNRS, Université Paris-Saclay, [2]Université Paris Descartes, [3]Hôpital Albert Chenevier, Créteil, France	Heterogeneities in the mechanical accommodation of α-γ transformation in iron N. Bruzy[1], Michel Coret[1], B. Huneau[1], E. Bertrand[2], G. Kermouche[3], M. Mondon[3], [1]Ecole Centrale de Nantes, [2]Institut des Matériaux Jean Rouxel, Nantes, [3] Laboratoire Georges Friedel, Saint-Étienne, France	
11:50	Bone remodelling around dental implants based on functional loading Salih Celik, L. Keilig, I. Hasan, C. Bourauel, University of Bonn, Germany	Digital image correlation using the natural beauty of wood Tim Belden, D.A. Jesson, J.F. Watts, University of Surrey, UK	
12:10	In vitro anchorage measurements and primary stability performance under dynamic loading of two implant designs Ainara Irastorza-Landa[1], M. Geisendorf[1], J. Fabech[2], P. Heuberger[1], [1]Nobel Biocare Services AG, [2]Zürcher Hochschule für Angewandte Wissenschaften (ZHAW), Germany	Optical strain measurement system for fatigue testing J.V. Sahadi[1], R.J.H. Paynter[1], David Nowell[1,2], [1]University of Oxford, [2]Imperial College London, UK	
12:30	**Plenary Session – Mayflower 2** **(Sam Parry)** **BSSM Best Paper in 'Strain' Fylde Prize for 2017** **Chair: Fabrice Pierron** **Dynamic contact strain measurement by time-resolved stroboscopic energy dispersive synchrotron X-ray diffraction** **M. Mostafavi, D.M. Collins, M.J. Peel, C. Reinhard, S.M. Barhli, R. Mills, M.B.Marshall, R.S. Dwyer-Joyce, T. Connolley** **Mahmoud Mostafavi, University of Bristol, UK**		
13:00	**Lunch and Exhibition – Mayflower 1 and Mayflower Suite Lounge**		
14:00	**Plenary Session – Mayflower 2** **(Saran Ramachandran)** **BSSM Measurements Lecture 2017** **Chair: Salih Gungor** **Experimental characterisations of devices for high power ultrasonics applications** **Professor Margaret Lucas, University of Glasgow, UK**		

15:00	**Plenary Session – Mayflower 2** **(Geir Olafsson)** **BSSM Young Stress Analyst Competition** **Chair: Hari Arora**
	1 Switchable-stiffness morphing aerostructures using granular jamming, David Brigido-Gonzalez, University of Bristol, UK 2 Image-based inertial impact tests for composite interlaminar tensile properties, Jared Van Blitterswyk, University of Southampton, UK 3 Deformation mechanism interaction in high-purity columnar Al, Marissa Linne, University of Michigan, USA 4 Preservation of bone tissue mechanics with temperature control for in situ SR-microCT experiments, Marta Pena Fernandez, University of Portsmouth, UK
16:10	**Refreshments and Exhibition – Mayflower 1 and Mayflower Suite Lounge**
16:30	**Plenary Session – Mayflower 2** **(Jack Callaghan)** **BSSM Measurements Lecture 2018** **Chair: Janice Barton** **Accurate non-destructive defect characterisation using ultrasonic measurements** **Professor Bruce Drinkwater, University of Bristol, UK**
17:30	**BSSM AGM – Mayflower 3**
19:00	**Chairman's Reception, Gala Dinner and Awards Ceremony – Grand Harbour Hotel, Mayflower 2**

	Friday 31st August 2018		
08:30	**Arrival Tea and Coffee – Mayflower Suite Foyer**		
	Mayflower 2 (Geir Olafsson)	**Mayflower 1 (Saran Ramachandran)**	**Mayflower 3 (Michael Comport)**
	Session 3.1a Chair: David Asquith	**Session 3.1b Chair: Mikko Hokka**	**Session 3.1c Chair: Michel Coret**
	Structural Testing	**Small Scale Testing**	**DIC Application 3**
09:00	Design and optimization of a multi-camera structural test using pre-visualization Matthieu Vitse[1], M. Poncelet[1], A.E. Iskef[1], J.-E. Dufour[2], R. Gras[3], A. Bouterf[1], B. Raka[1], C. Giry[1], F. Gatuingt[1], F. Hild[1], F. Ragueneau[1] and S. Roux[1], [1]ENS Paris-Saclay, France, [2]University of Pavia, Italy, [3]EikoSim, France	Probing the compressive failure mechanisms in syntactic foam using X-ray micro-computed tomography Mehmet Kartal, University of Aberdeen, UK	Mechanical characterisation of the adhesion between a silicone elastomer film and silicone gels Christophe Berto, Y. Tillier, MINES ParisTech, France
09:20	High precision tracking compensator for single component hybrid simulation Jacob Waldbjoern, A. Quinlan, C. Berggreen, Technical University of Denmark	The micro-mechanical characterization of wood fibers: A strategy for distinguishing between early and late wood growth Stephen Garrett[1], D.A. Jesson[1], G. Pans[2], C. Phanopoulos[2], J.F. Watts[1], [1]University of Surrey, UK, [2]Huntsman Polyurethanes, Belgium	Evaluation of sensitivity-based virtual fields for non-linear parameter identification including DIC filtering effects Pascal Lava[1], J.Furmanski[2], A. Marek[3], F.M. Davis[3], F. Pierron[3], [1]MatchID, Belgium, [2]ExxonMobil Corporate Strategic Research, USA, [3]University of Southampton, UK
09:40	Characterisation of a whirling arm erosion test rig Cameron Mackie, D. Boyce, D. Nash, University of Strathclyde, UK	Investigation of nanoscale strains at the austenitic stainless steel 316L surface using nanogauge gratings and EBSD Joseph Marae Djouda[1,2], Y. Madi[2,3], G. Montay[1], B. Panicaud[1], T. Maurer[2], [1]Université de Technologie de Troye, [2]EPF - Ecole d'ingénieurs, [3]Centre des Matériaux, UMR CNRS, France	An approach towards high fidelity imaging the local material behaviour of Friction Stir Welded (FSW) 304 stainless steel joints Saran Ramachandran, J.M. Dulieu-Barton, P.A.S. Reed, University of Southampton
10:00			Investigation on high velocity impact response and residual strength of carbon fiber reinforced laminated plates with strengthening rib Q. Deng, Cunxian Wang, T. Yee, T. Suo, Northwestern Polytechnical University, China
10:20	**Refreshments – Mayflower Suite Lounge**		
10:45	**Plenary Session – Mayflower 2** **Chair: Frances Davis** **Taking the (female pelvic) floor to talk about experimental mechanics** **Associate Professor Raffaella De Vita, Virginia Tech, USA**		

	Mayflower 2 (Sam Parry)	Mayflower 1 (Rene Kaufmann)	Mayflower 3 (Irene Jimenez Fortunato)
	Session 3.2a Chair: Frances Davis	**Session 3.2b Chair: Rian Seghir**	**Session 3.2c Chair: Janice Barton**
	Biomechanics 1	**Novel Sensor Development 1**	**Thermomechanics 1**
11:50	Static breast skin strain and breast support Michelle Norris, C. Mills, J. Wakefield-Scurr, University of Portsmouth, UK	Developing an understanding of shear horizontal transducers for damage detection Frederick Purcell, R. Pullin, D. Crivelli, M. Eaton, Cardiff University, UK	Energetic characterization of stretched crystallizing TPU foams by using infrared thermography A. Lachhab[1], E. Robin[1], Jean-Benoît Le Cam[1], F. Mortier[2], Y. Tirel[2], F. Canevet[2], [1]University of Rennes, [2]Cooper Standard France, France
12:10	Numerical and experimental analysis of a personalized prosthesis for a patient with unilateral hip osteoarthritis Juan Alfonso Beltran-Fernandez[1], O.R. Ruíz-Muñoz[1], L.H. Hernández-Gómez[1], I. Bantle-Chávez[1], C. Alvarado-Moreno[1], A. González-Rebattú y González[2], E.A. Figueroa-Rodríguez[1], A.L. Lievano[1], P. Moreno-Garibaldi[1], N.D. Pava-Chipol[1], [1]Instituto Politecnico Nacional, [2]Hospital Regional ISSSTE, Mexico	Crack propagation within Penrose tilling-based structures Rian Seghir, J. Réthoré, M. Nicol, A.C. Vermeil, Y. Wang, Ecole Centrale de Nantes, France	The modal characteristics of the post buckled plate Hao Cheng[1], W.Y. Wei[2], B.R. Liu[1], Z.X. Jia[1], J. Guo[1], [1]Beijing Institute of Structure and Environment Engineering, [2]China Academy of Launch Vehicle Technology, China
12:30	**Lunch – Marco Pierre White Restaurant**		
	Mayflower 2 (Jack Callaghan)	**Mayflower 1 (Rene Kaufmann)**	**Mayflower 3 (Geir Olafsson)**
	Session 3.3a Chair: Raffaella De Vita	**Session 3.3b Chair: Margaret Lucas**	**Session 3.3c Chair: Jean-Benoît Le Cam**
	Biomechanics 2	**Novel Sensor Development 2**	**Thermomechanics 2**
13:30	In-vivo optical strain measurements of the human heart A. Soltani[1], J. Lahti[2], S. Curtze[1], K. Järvelä[2], J. Laurikka[2], Mikko Hokka[1], V.-T. Kuokkala[1], [1]Tampere University of Technology, [2]Tampere University, Finland	Investigation of influence factors of photomechanical measurement errors Xiaojuan Zhang, H. Zhu, Q. Ma, Z. Liu, S. Ma, Beijing Institute of Technology, China	Towards developing a calibration technique to apply TSA with micro-bolometers Irene Jimenez-Fortunato, D.J. Bull, J.M. Dulieu-Barton, O.T. Thomsen, University of Southampton
13:50	In vitro strain measurements of stent-artery interactions using 3D digital image correlation method Paolo Ferraiuoli[1], J.W. Fenner[1], M.C.M. Rutten[2], A.J. Narracott[1], [1]University of Sheffield, UK, [2]Eindhoven University of Technology, The Netherlands	Dynamic pressure reconstruction using the VFM Rene Kaufmann, B. Ganapathisubramani, F. Pierron, University of Southampton, UK	Optimising probing depth in pulse thermography inspections of composite materials Geir Olafsson[1], R.C. Tighe[2], J.M. Barton[1], [1]University of Southampton, UK, [2]University of Waikato, New Zealand

14:10	Displacement and strain measurement in three dimensions of articular cartilage by using MR images Yuelin Zhang, S. Yoneyama, Aoyama Gakuin University, Japan	Photoelasticity with gigahertz and terahertz illumination Andrew Waddie, G. Diederich, A.J. Moore, Heriot-Watt University, UK	Monitoring the fiber separation from the matrix with high-speed infrared thermal imaging S. Boubanga-Tombet, A. Huot, F. Marcotte, Philippe Lagueux, Telops, Canada
14:30		Investigating micro-scale surface change of an ohmic MEMS switch contact between switching cycles Thomas Bull, L. Jiang, J.W. McBride, University of Southampton, UK	An experimental study of thermal buckling behavior in C/SiC thin-wall composite structures for hypersonic aircrafts Haibo Li[1], Z.F. Bai[2], W.R. Gong[1], W. Zhang[1], [1]Beijing Institute of Structure and Environment Engineering, [2]China Academy of Launch Vehicle Technology, China
14:50	**Closing Plenary Session – Mayflower 2** **Conference Chair: Simon Quinn, University of Southampton** **2019 Conference Chair: Adrian Murphy, Queens University Belfast**		
15:00	**Refreshments – Conference Close – Mayflower Suite Lounge**		