JOINT EVENT
ICCS23 - 23rd International Conference on Composite Structures & MECHCOMP6 - 6th International Conference on Mechanics of Composites

Faculty of Engineering, University of Porto, Portugal
1-4 September 2020

Conference program

António J.M. Ferreira
Nicholas Fantuzzi
Michele Bacciocchi
General Information

Conference chairs
António J.M. Ferreira, University of Porto, Portugal
Nicholas Fantuzzi, University of Bologna, Italy
Michele Bacciocchi, University of San Marino, San Marino

Conference program – Portugal time (WEST/GMT+1)

Tuesday, September 1
08h00-08h15 — Opening (Conference chairs)
08h15-10h00 — Early-morning parallel sessions
10h00-10h15 — Break
10h15-12h30 — Mid-morning parallel sessions
12h30-13h30 — Break
13h30-16h00 — Midday parallel sessions
16h00-16h15 — Break
16h15-18h00 — Afternoon parallel sessions

Wednesday, September 2
08h00-10h00 — Early-morning parallel sessions
10h00-10h15 — Break
10h15-12h30 — Mid-morning parallel sessions
12h30-13h30 — Break
13h30-16h00 — Midday parallel sessions
16h00-16h15 — Break
16h15-18h00 — Afternoon parallel sessions

Thursday, September 3
08h00-10h00 — Early-morning parallel sessions
10h00-10h15 — Break
10h15-12h30 — Mid-morning parallel sessions
12h30-13h30 — Break
13h30-16h00 — Midday parallel sessions
16h00-16h15 — Break
16h15-18h00 — Afternoon parallel sessions

Friday, September 4
08h00-10h00 — Early-morning parallel sessions
10h00-10h15 — Break
10h15-12h30 — Mid-morning parallel sessions
12h30-13h30 — Break
13h30-16h00 — Midday parallel sessions
16h00-16h15 — Break
16h15-18h00 — Afternoon parallel sessions
18h00 — End of conference
Live program

08h00
Opening
Antonio J.M. Ferreira

08h15
2163/Impact simulation and shape optimization of an origami crash box made of carbon/epoxy composite material
Ciampaglia Alberto; Boursier Niutta Carlo; Fiumarella Dario; Ciardiello Raffaele; Belingardi Giovanni

08h30
2013/Investigating the behaviour of high performance pseudo-ductile hybrid composite in indentation
Fotouhi, Mohammad; Pui, Wei Xia; Jalalvand, Meisam; Prato, Alessia; Wisnom, Michael R.

08h45
2115/A repair algorithm for composite laminates to satisfy lay-up design guideline
Fedon, Noemie; Weaver, Paul M.; Pirrera, Alberto; Macquart, Terence

09h00
2222/Prediction of the in-plane mechanical properties of continuous carbon fibre reinforced 3D printed polymer composites using classical laminated-plate theory
Saeed, Khalid; Alistair, Mcilhagger; Harkin-Jones, Eileen; Kelly, John; Archer, Edward

09h15
2279/Designing Straight-Fibre Variable Stiffness Composite Laminates
van den Oord, Ellen; van Campen, Julien

09h30
2300/Concrete Cracking And Deflection Analysis Of Rc Beams Strengthened With Prestressed Frp Reinforcements Under External Load Action
Slaitas Justas; Valivonis Juozas

09h45
2486/Modal Analysis of the Photovoltaic Roof in a Multi-Occupant Solar Vehicle
Pavlovic, Ana; Sintoni, Davide; Minak, Giangiacomo; Fragassa, Cristiano

10h00
Break
Tuesday, September 1 (Mid-morning)

10h15
2341| Data-driven multiscale simulation of FRP based on material twins (Winner of the Ian Marshall Award)
Wei, Huang; Rui, Xu; Jie, Yang; Qun, Huang; Heng, Hu

10h30
2557| Numerical Analysis of Curing Process-Induced Residual Stress of Composite Laminate
Kim, Dong-Hyeop; Kim, Sang-Woo

10h45
2651| Shape optimization design of fabric rubber seal
Xue Feng YAO; Yi feng DONG

11h00
2664| Metastable Chaotic Vibrations of Bistable Asymmetric Composite Laminated Square Shallow Shell under Foundation Excitation
Liu, Tao; Zhang, Wei; Meiqi, Wu; Yan, Zheng; Yufei, Zhang

11h15
2692| Thickness effect of anisotropic conductive behavior of carbon fiber reinforced PEEK unidirectional tape
Wu Haihong

11h30
2588| Numerical investigation of orthogonal machining damage development in CFRPs considering thermal effects
Kubher, Sagar; Gururaja, Suhasini

11h45
2601| Experimental characterization of compressive strength and modes of compressive failure in UD-FRP laminates with wrinkles at varying locations
Krishnappa, Shashidhar; Ansari, Mohammed Muslim; Gururaja, Suhasini

12h00
2525| Thermo-mechanical creep behavior of un-cured prepregs
Kakur, Naresh; Ahmad E., Salem; K.A., Khan; Rehan, Umer; W.J., Cantwell

12h15
2629| 3D Simulation of Dynamic Interlaminar Failure in Curved Unidirectional CFRP Laminates
Ata, Tamer Tahir; Coker, Demirkan

12h30
Break
Tuesday, September 1 (Midday)

13h30
2490|1D Hierarchical Ritz Formulation and 2D GDQ-based approaches for the mechanical modelling of thin-walled composite structures
Fazzolari, Fiorenzo; Viscoti, Matteo; Dimitri, Rossana; Tornabene, Francesco

13h45
2524|On effective properties of thin-walled composite flexoelectric thin-walled structures
Victor A. Eremeyev; Jean-Francois Ganghoffer; Mohammad Malikan; Maryam Nasimsobhan

14h00
2536|Design and Analysis of a Carbon-Fibre Sandwich Structure as Safety Cage for a Solar Powered Multi-Occupant Vehicle
Fragassa, Cristiano; Pavlovic, Ana; Minak, Giangiacomo

14h15
2554|A 3D SHELL MODEL FOR THE THERMAL AND HYGROSCOPIC STRESS ANALYSIS OF COMPOSITE AND SANDWICH STRUCTURES
Brischetto, Salvatore; Torre, Roberto

14h30
2573|Physics-Informed Neural Networks for the Analysis of Composite Structures
Yan, Cheng Angelo; Vescovini, Riccardo; Dozio, Lorenzo

14h45
2575|COST AFFORDABLE CARBON-PHENOLIC LAMINATES: PRODUCTION AND INVESTIGATION OF THERMO-MECHANICAL RESPONSE
Caporale Antonio Maria; Boiocchi Matteo; Airoldi, Alessandro; Torre Luigi; Natali Maurizio; Rigamonti Daniela

15h00
2638|Damage model of woven fabric flax fibre’s biocomposites laminates: application to failure prediction of sandwich panel
Frederic, LACHAUD; Mathieu BOUTIN; Matéo RIGANTI; David PLANAS

15h15
2643|OPTIMIZATION OF VARYING STIFFNESS SUPPORT DEVICE FOR HUMAN SUPINE POSITION
Miranda, J.; Portal, R.; Loja, M.A.R.; Milho, J.

15h30
2425|Mechanical performance of tailor-braided composite beam structures
Singh, Anubhav; Keating, Elspeth; Hughes, Darren

15h45
2591|Path Planning and Fiber Angle Optimization of Continuous Fiber Composites for Additive Manufacturing
Fernandes, Mariana; Sohouli, Abdolrasoul; Yildiz, Mehmet; Suleman, Afzal

16h00
Break
Tuesday, September 1 (Afternoon)

16h15
2598| Multi-material Topology Optimization for Dynamic Scaling Application using a Gradient-based Optimization Approach
Costa, Beatriz; Sohouri, Abdolrasoul; Suleman, Afzal

16h30
2654| Impact behavior of thin-ply generation aluminum carbon hybrids
Drozdziel, Magda; Jakubczak, Patryk; Bienias, Jaroslaw

16h45
2110| Preparation of interpenetrating metal matrix composite based on metallic glass foams produced by gas pressure infiltration
Dittmann, Kerstin; Trauth, Anna; Weidenmann, Kay

17h00
2494| Nonlinear dynamic response of a multilayer piezoelectric nanocomposite microbeam with tip mass
Esmaeili, Hamidreza; Arvin, Hadi; Lacarbonara, Walter

17h15
2194| Optimised morphing of symmetric cross-ply flexible hinges by minimising the Brazier moment
Aileen G. Bowen Perez; Giovanni Zucco; Paul M. Weaver

17h30
2644| Finite-Volume Method for Saint Venant’s Torsion of Arbitrarily Shaped, Homogeneous and Graded Cross Sections
Chen, Heze; Gomez, Jose; Pindera, Mare
Wednesday, September 2 (Early-morning)

08h00  2270 | Impact responses of carbon fiber reinforced polymer-based shear thickening fluid hybrid composite plate
Kim, Sang-Woo; Lim, Jaehyeong

08h15  2622 | An analytical three-dimensional piezoelectricity solution for arbitrarily supported cylindrical shell using the extended Kantorovich method
Kar, Shranish; Potkar, Ajinkya Shyam; Kumari, Poonam

08h30  2388 | Constitutive and FE modelling of magneto-active polymeric composites
Garcia-Gonzalez, Daniel

08h45  2389 | Mechanical and electrical behaviour of conductive 3D printed thermoplastic composites
Garcia-Gonzalez, Daniel; Tirado-Garcia, Ignacio; Garzon-Hernandez, Sara; Martinez-Turifa, Juan Manuel; Robles, Guillermo; Arias, Angel

09h00  2637 | Piezoresistivity and Gauge Factors of Nanocomposite Strain Sensors Manufactured from Industrial Carbon Nanotube Masterbatches
Butt, Hassaan A.; Lomov, Stepan V.; Dyachenko, Igor I.; Akhatov, Iskander S.; Abaimov, Sergey G.

09h15  2543 | Computational study on the effects of perforation distribution in the graphene paper interface and the out-of-plane properties of high-performance composite
UD DIN, Israr; KHAN, Kamran Ahmed; UMER, Rehan

09h30  2132 | Numerical analysis of micro-damage initiation and healing in composite materials
Smojver, Ivica; Ivančević, Darko; Brezetić, Dominik

09h45  2360 | Identification of longitudinal and radial moisture diffusion parameters of flax fibres by means of experimental and numerical analysis
Djellouli Belahcen; Assarar Mustapha; Zouari Wajdi; Ayad Rezak

10h00  Break
Wednesday, September 2 (Mid-morning)

10h15 2660 | Microstructural characteristics and tensile damage evolution of the plain weave SiC/SiC composites using X-ray computed tomography
Zhang, Daxu; Liu, Yu; Liu, Hailong; Feng, Yuqi; Zhang, Yi; Guo, Hongbao; Chen, Chao; Hong, Zhilsang

10h30 2381 | Damage Interaction in Carbon Fibre Reinforced Polymer Laminates under In-Plane Loading
Chaurasia, Bipin Kumar; Kumar, Deepak; Paswan, Manikant

10h45 2518 | Delamination and Matrix Cracking in Curved shape Randomly oriented Glass Fibre Composite under Pull-out Test
Chaurasia, Bipin Kumar; Kumar, Deepak; Paswan, Manikant

11h00 2249 | Experimental investigation on the mechanical performance of thermoplastic composites manufactured with automated fibre placement
Venkatesan, Chadurvedi; Vaheed, Nahaad; Silva, Arlindo Dr; Tan Tong-earn

11h15 2333 | Modelling Composite Failure through Machine Learning
Ding, Xiaoxuan; Hou, Xiaonan; Gu, Zewen; Xia, Min; Ismail, Yaser; Ye, Jianqiao

11h30 2298 | Multiple-criteria failure analysis of top-hat cross-section GLARE composite members subjected to compression. Numerical and experimental study.
Banat, Dominik; Mania, Radosław

11h45 2466 | Residual stress measurement in a metal/FRP hybrid structure
Wu, Tao; Tinklo, Steffen; Tröster, Thomas; Zinn, Wolfgang; Niendorf, Thomas

12h00 2105 | In-situ mechanical testing of an interpenetrating metal matrix composite consisting of a slurry-based ceramic foam and an AlSi10Mg alloy
Schukraft, Joël; Lohr, Christoph; Weidenmann, Kay André

12h15 2143 | A perspective investigation of mechanical key issues for structural impact of composite rail vehicles
Xue, Xiangdong; Robinson, Mark; Ma, Juan

12h30
Break
Wednesday, September 2 (Midday)

13h30  
**2617** Effects of alkali treatment on moisture absorption and mechanical properties of flax/polypropylene composites  
Zhong, Yucheng; Cheng, Mingyang; Xiao, Xiong

13h45  
**2091** A Novel Protocol for Rapid Identification of the Diffusion Properties of Polymer-Matrix Composite Materials with Complex Texture  
Gigliotti, Marco; Beringhier, Marianne; Vannucci, Paolo

14h00  
**2092** Durability of epoxy adhesives for civil engineering applications under hygrothermal ageing  
Ascione, Francesco; Granata, Luigi

14h15  
**2560** Study of the hygro-mechanical coupling in composite materials  
DEZULIER Quentin; JACQUEMIN Frederic; CLEMENT Alexandre; DAVIES Peter; ARHANT Mael; FLAGEUL Benjamin

14h30  
**2560** A coupled thermal-chemical numerical model to define the thermal limits of CF-PEEK in hybrid joining applications  
Gaitanelis, Dimitrios; Worrall, Chris; Kazilas, Mihalis

15h00  
**2357** Experimental investigation of deformation behaviour of stress-ribbon bridge prototype under sustained load  
Rimkus, Arvydas; Gribniak, Viktor; Jakubovskis, Ronaldas; Juozapaitis, Algirdas; Sandovič, Giedrė; Sokolov, Aleksandr

15h15  
**2405** Nonlinear dynamic analysis of base isolated structures under strong seismic events  
De Angelis, Fabio; Cancellara, Donato

15h30  
**2032** Influence of high cycle fatigue on the bond behavior of FRCM - concrete joints  
Colombi Pierluigi; Calabrese Angelo Savio; D’Antino Tommaso; Poggi Carlo

15h45  
**2623** FRP beam-to-column hybrid joints subjected to monotonic and cyclic loading  
Qureshi, Jawed; Nadir, Yashida; John, Shaise K

16h00  
Break
Wednesday, September 2 (Afternoon)

16h15
2243/Alternative Finite Element Modeling Technique Of Filament Winding Composite Pressure Vessels
Usta Yayla, Ayse; Nigar, Baris; Sahin, Harun Levent; Tuncoz, Ilhan Ozan

16h30
2488/Efficiency analysis of utilisation of advanced materials in SHS profiles subjected to bending
Misiunasté Ieva; Rimkus Arvydas; Pravilonis Tautvydas; Gribniak Viktor

16h45
2493/Advanced Higher-Order Mechanical Modelling of Anisotropic Doubly-Curved Shell Structures
Tornabene, Francesco; Dimitri, Rossana

17h00
2625/Vibration analysis of single and doubly curved n-layered composite thick shells
Ozturk, Ahmet Gokay; Arikoglu, Aytac

17h15
2662/A Novel GBT-Formulation for Thin-Walled FGM-Beam-Structures Based on a Reference Beam Problem
Kugler, Stephan; Fotiu, Peter A.; Murin, Justin

17h30
2628/Finite element analysis of PPF controller efficiency to vibration suppression of composite beam
Mitura, Andrzej; Gawryluk, Jaroslaw

17h45
2516/Flexural Strengthening of Unbonded RC Beams with the Advanced Carbon Fiber Polymer (CFRP) Composites
Jnaid, Fares
Thursday, September 3 (Early-morning)

08h00
**1011** | **KEYNOTE LECTURE** | Natural Fibre Based Hybrid composites for automotive, ballistic and packaging applications
_Jawaid, Mohammad_

08h30
**2375** | **Damage Analysis of Adhesively Bonded Lap Joints Laminated Composites**
_Kumar, Deepak_

08h45
**2067** | The transversal profile of an edge flow in radial injection experiments at constant pressure: Theory vs. experiment
_Abaimov, Sergey G.; Lebedev, Oleg V.; Grishaev, Viktor; Gilmudinov, Bulat N.; Akhatov, Iskander S._

09h00
**2126** | Three-dimensional vibration of functionally graded sandwich shells in thermal environments by a differential quadrature hierarchical finite element method
_Liu, Bo; Shi, Tao; Xing, Yufeng_

09h15
**2613** | Wear of a functionally graded coating due to dry frictional sliding
_Zelentsov, Vladimir B.; Mitrin, Boris I.; Aizikovich, Sergei M._

09h30
**2621** | Local heating of a thermoelectroelastic FGM coated piezoelectric half-space
_Vasiliev Andrey; Volkov Sergey; Sergei Aizikovich_

09h45
**2681** | Nonlinear vibrations analysis of pre-tensioned Bernoulli-Euler functionally graded nanobeams
_Feo, Luciano; Penna, Rosa; Fortunato, Antonio; Lovisi, Giuseppe; Luciano, Raimondo_

10h00
Break
Thursday, September 3 (Mid-morning)

10h15
2521| A genuine novel optimization approach for FGM axisymmetric bodies
Abdalla, Hassan Mohamed Abdelalim; Casagrande, Daniele

10h30
2684| Shear Strength of Fiber Reinforced Concrete: Is Aggregate Type Matters?
Dawlah, Samira; Yehia, Sherif; Abuzaid, Wael

10h45
2138| Multiscale investigation on the tensile response of ultra-high performance fibre-reinforced cementitious composite incorporating Spent Equilibrium Catalyst
Abrishambaf, Amin; Pimentel, Márcio; Nunes, Sandra

11h00
2145| An iterative semi-analytical method to study the mode I bridging-traction law of multidirectional composite laminates
Cao, Tiancheng; Zhao, Libin; Zhang, Jianyu

11h15
2074| Comparison of delamination onset and propagation in curved composite laminates with different lay-ups
Ghiasvand, Sara; Airoldi, Alessandro; Mokrane, Fatima Zahra; Boiocchi, Matteo

11h30
2440| Towards rain erosion delamination damage prediction in Wind Turbine Blades: Interface modelling approach
Domenech, Luis; Cortés, Enrique; Sanchez, Fernando

11h45
2214| Correlation analysis of statistical void-related characteristics and fatigue Mode I interlaminar fracture toughness of CFRP composites
Vorobyev, Ruslan; Sergeichev, Ivan; Akhatov, Iskander

12h00
2109| Additive manufacturing of temperature sensitive actuators manufactured from NiTi shape memory wires embedded in polymer structures
Eyer, Philipp; Trauth, Anna; Weidenmann, Kay

12h15
2156| Carbon Fiber-Reinforced Textiles Enhanced with Carbon Nanotubes
Agnelli, Jacopo; Benedetti, David; Fantuzzi, Nicholas

12h30
Break
Thursday, September 3 (Midday)

13h30
2608/Matrix cracking driven stress redistribution in ceramic matrix composites
Nagaraja, Abhilash; Gururaja, Suhasini

13h45
2247/A damage model to predict non-linear shear behaviour of ceramic matrix composites
Zhang, Daxu; Feng, Yuqi; Xu, Qian; Chen, Mingming; Hong, Zhiliang; Guo, Hongbao; Zhang, Yi

14h00
2593/Two-stage numerical approach for reliable recognition of the occurrence and evolution of dry spots during VAP infusion of large composite parts of complex shape
Shevtsov Sergey; Zhilyaev Igor; Snezhina Natalia; Chang Shun-Hsyung; Wu Jing-Kae; Huang Jyun-Ping

14h15
2099/Probabilistic analysis of the effect of fibre architecture distribution on the mechanical property of plain-woven composite under tensile loading
Ma, Dayou; Manes, Andrea; Giglio, Marco

14h30
2667/Buckling experiments of additively manufactured structures
Völlmecke, Christina; Klunker, André

14h45
2570/Robust identification of material model by means of forced sinusoidal excitation measurements
Amadori, Stefano; Catania, Giuseppe

15h00
2590/Formulation of hexahedral 3D finite elements using curvilinear coordinates
Cinefra, Maria

15h15
2282/Fastener pull-out response in composite joints under rapid loading rates: Experimental and numerical study
Perogamvros, Nikolaos; Murphy, Adrian; Lampeas, George

15h30
2565/Damage mechanisms of scarf joint repairs for wind turbine rotor blade shell applications
Ghafafian, Carineh; Popiela, Bartosz; Trappe, Volker

15h45
2599/Mode I crack propagation analysis of adhesive bonded joints made of glass fiber composite material under impact and standard fatigue loading
Bautista Villamil, Alirio Andrés; Casas Rodríguez, Juan Pablo; Silva Barrera, Maribel; Porras Holguín, Alicia

16h00
Break
Thursday, September 3 (Afternoon)

16h15
2140|Experimental and numerical impacts of bird substitute projectile to CFRP plates
del Cuvillo Mezquita, Ramón; Artero-Guerrero, José Alfonso; Pernas-Sánchez, Jesús; López-Puente, Jorge; Varas, David

16h30
2544|NUMERICAL INVESTIGATION ON THE RESPONSE OF CFRP COMPOSITE PLATES SUBJECTED TO LOW VELOCITY REPEATED IMPACTS
Rezasefat, Mohammad; Gonzalez-Jimenez, Alvaro; Giglio, Marco; Manes, Andrea

16h45
2566|The impact behaviour of titanium/carbon, aluminum/carbon and conventional carbon fibres laminates - a comparative study
Jakubczak, Patryk; Drożdziel, Magda; Bieniaś, Jarosław

17h00
2612|Effects of hole-hole interaction on mechanical properties in barely visible impact damaged carbon fibre reinforced polymer laminates
Lai, Wei Liang; Saeedipour, Hamid; Goh, Kheng Lim

17h15
2179|Predictions of Core Damage Depth in Aluminum Honeycomb Sandwich Panels due to Low-Velocity Impacts
Wowk, Diane; Marsden, Catharine

17h30
2604|Finite element analytical formulation for nonlinear tensegrity dynamics
Ma, Shuo; Chen, Muhao; Skelton, Robert E.
Friday, September 4 (Early-morning)

08h00 2558| Evaluation of Lightning-induced Natural Fiber Composites for Wind Turbine Blade Application using Ultrasonic Wavefield Imaging Technique
Mat Daud Siti Zubaidah; Mustapha Faizal; Kim, Sang-Woo

08h15 2225| In situ detection of changes in hybrid specimens using resonant inspection techniques
Gundlach, Christian; Hopmann, Chris; Böckenhoff, Paul; Menzel, Marcus; Dilger, Klaus; Hartwig, Sven

08h30 2035| Semi-analytical optimal solution for maximum buckling load of simply supported orthotropic plates
Jing, Zhao

08h45 2627| Wave propagation in thin pretwisted and delaminated composite strips
P, Punith; Mitra, Mira; P.J, Guruprasad

09h00 2640| Dynamic Instability Analysis of CNT-Reinforced Laminated Composite Plates Subjected to Periodic Non-Uniform Axial Loadings
Dey, Tanish; Chakraborty, Suneet

09h15 2686| Non-linear Vibration of Multi-scale Composite Plate under Non-uniform In-plane Periodic Load
Vishal Singh; Rajesh Kumar; S. N. Patel

09h30 2689| Non-linear Dynamic Response and Dynamic Instability Study of Laminated Composite Plate
Fayaz, Danish; Patel, Shuvendu; Kumar, Rajesh

09h45 2673| Nonlinear bending of sandwich plates with functionally graded graphene reinforced porous nanocomposite core under various loads based on a four-unknown refined theory considering the thickness stretching effects
Jiang, Pengcheng; Wang, Aiwen

10h00
Break
Friday, September 4 (Mid-morning)

10h15 2305/Mechanical And Thermal Buckling Of Functionally Graded Axisymmetric Shells
Moita, José S.; Araújo, Aurélio L.; Correia, Victor Franco; Mota Soares, Cristóvão M.

10h30 2038/Dynamical analysis of two-directional carbon nanotube reinforced functionally graded composite plates
Karamanli, Armagan; Aydogdu, Metin

10h45 2147/The influence of the laminate code, curing process parameters and residual stresses on buckling and post-buckling behaviour of thin-walled composite columns with a square cross-section
Czapski, Pawel

11h00 2149/Blending in Multiscale Design of Composite Laminates
Picchi Scardaoni, Marco; Montemurro, Marco; Panettieri, Enrico; Catapano, Anita

11h15 2230/Numerical and Experimental Analysis for Structural Performance of NFRCM-Strengthened Masonry
Aldreghetti, Ivano; Baraldi, Daniele; Bosco, Giosue; Boscolo Zemelo, Mattia; Brito de Carvalho Bello, Claudia

11h30 2687/Homogenization of heat transfer in fibrous composite with stochastic interface defects
Marcin Kamiński; Piotr Ostrowski

11h45 2658/Towards structural solid-state pseudocapacitors: the electrochemical and mechanical behaviour of carbon nanotube-polyaniline composites
Wei, Tan

12h00 2700/Assessment of flexural ductility in strengthened masonry with composites including the effect of matrix
Crisci Giovanni; Giancarlo Ramaglia; Lignola, Gian Piero; Fabbrocino, Francesco; Prota, Andrea

12h15 2602/Torsional Behaviour Prediction of Triaxially Braided Composite Tubes Having Different Braiding Angles
Oturak, Seda; İnkaya, Ali Serkan; Necipoğlu, Hakkı Osman; Daryal, Mehmet Barış; Gündoğ, Sıla

12h30
Break
Friday, September 4 (Midday)

13h30 2310 Interfacial failure characteristics of shape memory fibers on the epoxy adhesive for development of debondable adhesives
Islam, Lincon Mazharul; Hwang, Hui Yun

13h45 2211 Interface characterization of hybrid fiber-metal-laminates after laser-based surface treatment
Trauth, Anna; Lohr, Christoph; Weidenmann, Kay

14h00 2340 Effect of heat treatment process on the dielectric properties of degradable PLA/GNPs composite films
Wenjie Yang; Xiping Li; Zhonglue Hu

14h15 2587 Reduction of Notch Effects in CNT-Epoxy Nanocomposites using Electric Field Application
Pothnis, Jayaram Ramanatha; Kalyanasundaram, Dinesh; Gururaja, Suhasini

14h30 2559 On vibrations of a nanobeam considering dynamic an surface-related flexoelectric properties
Victor A. Eremeyev; Mohammad Malikan; Leonid A. Igumnov

14h45 2478 ELECTROMAGNETIC FIELD AIDED MICROSTRUCTURAL ENHANCEMENT IN DIELECTRIC POLYMER NANOCOMPOSITES
Li, Danning; Ayre, David; Yazdani Nezhad, Hamed

15h00 2351 Modeling of material nonlinearity in reinforced concrete beams and shells for seismic analysis
AYOUB Naim; LARBI Walid; DEÛ Jean-François; PAIS Joseph; ROULEAU Lucie; BENAKLI Sarah

15h15 2656 A Hybrid Homogenization Theory for Unidirectionally-Reinforced Materials
Yin, Shizhen; He, Zhelong; Pindera, Marek-Jerzy

15h30 2022 Use of bio-composites for the manufacturing of a full electric microcar
Agnelli, Jacopo; Benedetti, David; Fantuzzi, Nicholas

15h45 2183 HOHWM for free vibration analysis of FGM nanobeams
Majak, Jürri; Ratas, Mart; Shvartsman, Boris; Pohlak, Meelis; Karjust, Kristo

16h00 Break
Friday, September 4 (Afternoon)

16h15  
2708|Frequency-modulated continuous-wave radar and ultrasound for ice build up detection  
Maio, Leandro; Moll, Jochen; Memmolo, Vittorio

16h30  
2224|Strain wave prediction on carbon fibre composites subjected to extreme load events  
González-Jíménez, Alvaro; Manes, Andrea; Beligni, Alessio; Sbarufatti, Claudio; Giglio, Marco

16h45  
2177|Theoretical and experimental study of resonances, Lamb waves scattering and conversion in a multi-layered plate with an interface delamination  
Mikhail V Golub; Artem A Eremin; Jochen Moll; Evgeny V Glushkov; Natalia V Glushkova; Claus-Peter Fritzen

17h00  
2657|High-stiffness open cell auxetic foams: preparation, mechanical and dynamics performance.  
Zhang, Qicheng; Scarpa, Fabrizio; Zhu, Yunpeng; Lang, Zi-Qiang; Lakes, Roderic; Peng, Hua-Xin

17h15  
2678|Impact Analysis of Zero Poisson’s Ratio Fish-Cells Metamaterial  
Jha, Ashutosh; Dayyani, Iman

17h30  
2682|Cylindrical Zero Poisson’s Metamaterials  
Qin, Qing; Dayyani, Iman

17h45  
2334|A meshfree-based micromechanics model for elastic homogenisation of automated fibre placement (AFP) composites  
Chen, Yanzhong; Wiegand, Jens; Petrinic, Nik

–End of Conference–
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<th>Paper ID</th>
<th>Title</th>
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<tr>
<td>2659</td>
<td>Influence of additional heating during laser PBF on mechanical properties of Ni-Al intermetallic composites</td>
<td>Shishkovsky Igor; Scherbakov Vladimir</td>
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<td>2285</td>
<td>Investigation of 3D Printed Pyramidal Lattice Core Continuous Filament Carbon Fiber Reinforced Thermoplastic Matrix Sandwich Panels by Various Production Parameters</td>
<td>Yazici, Murat; Bayram, Tolghahan</td>
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<tr>
<td>2124</td>
<td>Refined layer-wise models for nonlocal analysis of magneto-electro-elastic plates</td>
<td>Benedetti, Ivan; Gulizzi, Vincenzo; Milazzo, Alberto</td>
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