

Wednesday, September 21

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| 08:45 – 9:00 | Room Açores | Opening Session |
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| Room Açores | Plenary Lecture | Chair: Simonetta Boria |
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| 09:00 – 10:35 | Special lecture of the EU Graphene Flagship project- Special task on Automotive Composites: Graphene-based nanocomposites for Automotive | Ahmed Elmarakbi, Brunetto Martorana, Francesco Bertocchi, Franco Innocente and Elvira Abalos |

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| 10:40 – 11:00 | Coffee Break |
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| Room Açores | Plenary Lecture | Chair: Simonetta Boria |
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| 11:00 – 13:00 | Special lecture of the EU Graphene Flagship project- Special task on Automotive Composites: Graphene-based nanocomposites for Automotive | Ahmed Elmarakbi, Brunetto Martorana, Francesco Bertocchi, Franco Innocente and Elvira Abalos |

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| 13:00 – 14:00 | Lunch |
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| Room Açores | Plenary Lecture | Chair: Brunetto Martorana |
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| 14:00 – 14:45 | From graphene to carbon fibres: mechanical properties and stress transfer in composites | Costas Galiotis |

| Room Açores | DOS 1 | Design, Optimization and Simulation | Chair: Amélia Loja | |
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| | ID | Paper | Authors | Presenter |
| 14:50 – 15:10 | 2 | Drape simulation supported differential design approach for cost efficient composite automotive structures | Per Mårtensson, Dan Zenkert and Malin Åkermo | Per Mårtensson |
| 15:10 – 15:30 | 21 | Iterative Determination of the Tailoring of Blanks for a Waste-Free Composite Forming by Means of Finite Element Forming Simulation | Dominik Dörr, Lukas Lipowsky, Fabian Schirmaier, Luise Kärger and Frank Henning | Dominik Doerr |
| 15:30 – 15:50 | 23 | Methodical Design Process for Structural FRP systems | Jonathan Schmidt, Benedikt Heuer, Anna-Lena Beger, Zhuzhell Montano, Hendrik Hoffmann, Jörg Feldhusen and Dave Cadwell | Jonathan Schmidt |

| Room Porto Santo | GHN 1 | Green, Hybrid and New Composites | Chair: Isabel Duarte | |
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| | ID | Paper | Authors | Presenter |
| 14:50 – 15:10 | 4 | Aluminum hybrid square tube beam reinforced by a thin glass-fiber composite skin layer | Nak-Sam Choi and Hyung-Jin Kim | Nak-Sam Choi |
| 15:10 – 15:30 | 11 | Innovative bio-based composites for automotive applications | Amparo Verdu and Rosa Gonzalez Leyba | Amparo Verdu |
| 15:30 – 15:50 | 19 | Mechanical properties of self reinforced polyamide based composite systems | Paolo Vecchione, Domenico Acierno and Pietro Russo | Paolo Vecchione |

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| 15:50 – 16:10 | Coffee Break |
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| Room Açores | DOS 2 | Design, Optimization and Simulation | Chair: Sascha Fliegner | |
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| | ID | Paper | Authors | Presenter |
| 16:10 – 16:30 | 60 | Towards the characterization of behavioural uncertainty on CFRP laminates | Amélia Loja, Alda Carvalho and Tiago Silva | Amélia Loja |
| 16:30 – 16:50 | 67 | Structures with active and passive vibration control: Parameter estimation of visco-piezoelectric mechanical properties | Vitor Carvalho, Aurélio Araújo and Jorge Belinha | Vitor Carvalho |
| 16:50 – 17:10 | 5 | Analysis of stacking sequence effects of the rotating composite shafts using a finite element formulation | Safa Ben Arab, José Dias Rodrigues, Slim Bouaziz and Mohamed Haddar | Safa Ben Arab |
| 17:10 – 17:30 | 9 | Comprehensive numerical simulation of high performance SMC compression | Laura Oter Carbonell, Christophe Binetruy, Sebastien Comas Cardona and Christophe Aufrere | Laura Oter Carbonell |

| Room Porto Santo | GHN 2 | Green, Hybrid and New Composites | Chair: Mihaela Mihai | |
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| | ID | Paper | Authors | Presenter |
| 16:10 – 16:30 | 62 | Crush performance of foam filled tubes made of aluminium alloys at different loading conditions | Isabel Duarte, Matej Vesenjok and Lovre Krstulović-Opara | Isabel Duarte |
| 16:30 – 16:50 | 24 | Mechanism-based specific design improves the tensile behavior of hybrid material systems consisting of different sheet metals | David Hummelberger, Kay André Weidenmann, Luise Kärger and Frank Henning | David Hummelberger |
| 16:50 – 17:10 | 40 | Lower-cost, lighter and greener polypropylene-based biocomposites for automotive applications | Mihaela Mihai and Karen Stoeffler | Mihaela Mihai |
| 17:10 – 17:30 | 41 | Biocomposites and bioblends based on engineering thermoplastics for automotive applications | Mihaela Mihai and Karen Stoeffler | Karen Stoeffler |

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| 18:30 – 19:30 | Welcome Reception at Lisbon City Hall |
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Thursday, September 22

| Room Açores | Plenary Lectures | Chair: André Haufe |
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| 09:00 – 9:45 | Supercomposites for Automotive | Nicola M. Pugno |
| 09:50 – 10:35 | Crashworthiness Evaluation of Composite Vehicle Structural Components in Automotive Applications | Cing-Dao (Steve) Kan |

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| 10:40 – 11:00 | Coffee Break |
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| Room Açores | IDFF 1 | Impact, Damage, Fatigue and Failure | Chair: Jean-Pierre Delsemme | |
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| | ID | Paper | Authors | Presenter |
| 11:00 – 11:20 | 1 | Impact energy effects on the damage behavior of glass fabric/recycled polyolefin composite laminates | Pietro Russo, Giorgio Simeoli, Antonio Langella, Ilaria Papa and Valentina Lopresto | Pietro Russo |
| 11:20 – 11:40 | 6 | Crashworthiness design issues for a lightweight racing car | Simonetta Boria | Simonetta Boria |
| 11:40 – 12:00 | 10 | New method to generate suitability assessments of Composite-Metal-Hybrid material systems for automotive crash structures | Michael Dlugosch, Jens Fritsch, Dirk Lukaszewicz and Stefan Hiermaier | Michael Dlugosch |
| 12:00 – 12:20 | 15 | Application of fibre reinforced plastic sandwich structures for automotive crashworthiness | Dirk Lukaszewicz, Lourens Blok, James Kratz, Carwyn Ward and Christos Kassapoglou | Dirk Lukaszewicz |
| 12:20 – 12:40 | 17 | In situ testing and micromechanical simulation of fiber reinforced thermoplastics | Sascha Fliegenger, Tobias Kennerknecht and Matthias Kabel | Sascha Fliegenger |
| 12:40 – 13:00 | 27 | Energy absorption properties of braided composite rods | Shuhei Yasuda, Yuki Takagaki, Nobuyoshi Kajioaka, Hiroaki Yamada, Yuqiu Yang, Tadashi Uozumi and Hiroyuki Hamada | Hiroyuki Hamada |

| Room Porto Santo | AA | Automotive Applications | Chair: Luís Reis | |
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| | ID | Paper | Authors | Presenter |
| 11:00 – 11:20 | 37 | Innovative Automotive CFRP Cross Leaf Spring | Andrea Airale, Massimiliana Carello and Alessandro Ferraris | Andrea Airale |
| 11:20 – 11:40 | 43 | Are plastic materials suitable for engine components? Some possible solutions | Cristiana Delprete and Carlo Rosso | Carlo Rosso |
| 11:40 – 12:00 | 51 | CarS: Carbon Fiber Reinforced Steel for Structural Automotive Applications | Christian Lauter, Julian Loeseke, Zheng Wang and Thomas Troester | Zheng Wang |
| 12:00 – 12:20 | 54 | Novel ceramic composites for fire retardant applications in automotive and public transportation | Patrick Weichand, Rainer Gadow and Miguel Jimenez Martinez | Miguel Jimenez Martinez |
| 12:20 – 12:40 | 58 | A composite chassis for a formula student vehicle | Luis Sousa, Virgínia Infante and Ricardo Ferreira | Luis Sousa |
| 12:40 – 13:00 | 35 | Performance of a Carbon/Carbon Composite Clutch During Formula One Race Start Conditions | Ranvir Kalare, Peter Brooks and David Barton | David Barton |

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| 13:00 – 14:00 | Lunch |
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| Room Açores | Plenary Lecture | Chair: Nicola M. Pugno |
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| 14:00 – 14:45 | Development of Thermoset Composite Structures for Automotive Lightweighting | Frank Henning |

| Room Açores | IDFF 2 | Impact, Damage, Fatigue and Failure | Chair: Dirk Lukaszewicz | |
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| | ID | Paper | Authors | Presenter |
| 14:50 – 15:10 | 48 | Residual elastic properties and damage assessment in vehicle components made of composite materials | Alessio D'Andrea, Davide Paolino, Giovanni Belingardi, Brunetto Martorana and Vito Lambertini | Giovanni Belingardi |
| 15:10 – 15:30 | 49 | Damage modeling in composite material, an automotive application | Jean-Pierre Delsemme, Michael Bruyneel and Cédric Lequesne | Jean-Pierre Delsemme |
| 15:30 -15:50 | 71 | Design of a composite crash box for a Formula Student team car: preliminary simulations and testing | André Santos, Aurelio Araujo, José Aguilar Madeira and Hernâni Lopes | André Santos |

| Room Porto Santo | MF 1 | Manufacturing | Chair: Luís Sousa | |
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| | ID | Paper | Authors | Presenter |
| 14:50 – 15:10 | 3 | A newly injection molding system for short fiber composites | Akio Kataoka, Hirofumi Ichikawa, Akihiko Imajo, Hiroyuki Inoya and Hiroyuki Hamada | Akihiko Imajo |
| 15:10 – 15:30 | 12 | Establishment of CVT belt molding technique made of carbon fiber reinforced thermoplastics resin composite materials | Taichi Sugiura, Tatsuya Tanaka and Tsutao Katayama | Taichi Sugiura |
| 15:30 – 15:50 | 14 | Temperature Distribution in Thickness Direction of Thermoplastic Laminates During Thermoforming | Daniel Kugele, Julius Rausch, Philipp Müller, Luise Kärger and Frank Henning | Daniel Kugele |

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| 15:50 – 16:10 | Coffee Break |
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| Room Açores | NC 1 | Nanocomposites | Chair: Per Mårtensson | |
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| | ID | Paper | Authors | Presenter |
| 16:10 – 16:30 | 36 | Multi scale modelling of graphene platelets reinforced polymer matrix composite materials | Wiyao Azoti and Ahmed Elmarakbi | Wiyao Azoti |
| 16:30 – 16:50 | 42 | Hierarchical modelling of carbon fibres graphene reinforced polymer composites materials | Hicham El-Hage, Mustapha El Kady, Ahmed Elmarakbi and Wiyao Azoti | Hicham El-Hage |
| 16:50 – 17:10 | 44 | Mechanical properites of a thermoplastic adhesive modified with graphene nanoplatelets for automotive applications | Raffaele Ciardiello, Giovanni Belingardi, Brunetto Martorana, Francesco Cristiano, Francesco Bertocchi, Valentina Brunella and Marco Zanetti | Brunetto Martorana |
| 17:10 – 17:30 | 13 | Polypropylene nanocomposites with improved properties for automotive applications | Luis De Prada, Manuel Herrero and Jose Maria Pastor Barajas | Luis De Prada |

| Room Porto Santo | MF 2 | Manufacturing | Chair: Andrea Airale | |
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| | ID | Paper | Authors | Presenter |
| 16:10 – 16:30 | 16 | Manufacturing of complex parts based on unidirectional tapes | Raquel Ledo and Vanessa Ventosinos | Raquel Ledo |
| 16:30 – 16:50 | 18 | Experimental analysis of the influence of foam density and surface treatment on the failure behavior of polyurethane foam during the RTM process | Jens Gerstenkorn, Guenter Deinzer, Martin H. Kothmann, Felix Diebold, Luise Kaerger and Frank Henning | Jens Gerstenkorn |
| 16:50 – 17:10 | 22 | A strategy to produce metal-polymer hybrid components by additive manufacturing processes | Miguel R. Silva, David S. Oliveira, Artur Mateus and Cândida Malça | Miguel R. Silva |
| 17:10 – 17:30 | 28 | Effect of fiber length distribution on mechanical properties of composites in injection molding plasticization | Issei Harima, Hiroaki Yamada, Nobuyoshi Kajioaka, Yuqiu Yang and Hiroyuki Hamada | Issei Harima |
| 17:30 – 17:50 | 65 | Rapid, Low Energy Processing of Polymers and Composites | Terry McGrail, Walter Stanley, Ananda Roy and Dipa Roy | Terry McGrail |
| 20:00 – 23:00 | Conference Dinner | | | |

Friday, September 23

| Room Açores | Plenary Lectures | Chair: Hicham El-Hage |
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| 09:00 – 9:45 | Body structure design strategies using new composite and AI materials and enabled technologies (Evolution FP7 funded project) | Elena Cischino |
| 9:50 – 10:35 | The Simulation Process Chain: From Manufacturing to Part Performance of Composites | André Haufe |

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| 10:40 – 11:00 | Coffee Break |
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| Room Açores | NC 2 | Nanocomposites | Chair: Wiyao Azoti | |
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| | ID | Paper | Authors | Presenter |
| 11:00 – 11:20 | 46 | Multiscale Analysis of the Mechanical Performance improvement of composites CFRP laminates, and composites with short glass Fibers, through the addition of Nanoplatelets of Graphene | Ahmed Elmarakbi and Matteo Basso | Matteo Basso |
| 11:20 – 11:40 | 50 | Thermal and electrical properties of graphene-based thermoset composites: a study on the role of graphene nano-platelets morphology | Nicola Mirotta, Alessandro Kovtun, Emanuele Treossi, Alberto Fina, Julio Gomez, Tamara Blanco and Vincenzo Palermo | Nicola Mirotta |
| 11:40 – 12:00 | 59 | Improvement of Interlaminar Mechanical Properties of CFRP Laminates Based on Nanofiller Interface Reinforcement | Ning Hu, Huiming Ning and Jianyu Zhang | Jianyu Zhang |

| Room Porto Santo | MF 3 | Manufacturing | Chair: Aurélio Araújo | |
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| | ID | Paper | Authors | Presenter |
| 11:00 – 11:20 | 29 | Study on adaptation of recycled CFRTP to the hybrid injection molding | Junya Shiode, Tatsuya Tanaka, Masaya Kawashima, Masao Tomioka, Takeshi Ishikawa and Tatsuo Katayama | Shiode Junya |
| 11:20 – 11:40 | 31 | Application of an integrated injection approach to manufacturing multimaterial pre-pregs components | David S. Oliveira, Artur Mateus, Miguel R. Silva and Cândida Malça | David S. Oliveira |
| 11:40 – 12:00 | 33 | Investigation of mechanical properties of a fiber fair joining concept for fiber reinforced thermoplastics | Christian Brecher, Clemens Buschhoff and Henning Janssen | Clemens Buschhoff |
| 12:00 – 12:20 | 53 | Impact Behaviour of PPA-Glass Fibre Composites Automotive Components | Laura Gendre, Ian Butterworth and Tony Ridler | Laura Gendre |
| 12:20 – 12:40 | 34 | Semi-Solid Joining of Aluminium and Carbon Fabric | Lukas Marx and Mathias Liewald | Lukas Marx |

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| 12:40 | Closing Session + Lunch |
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