

# Wednesday, Sept. 6, 2017

# Thursday, Sept. 7, 2017

# Friday, Sept. 8, 2017

7:00-8:00 a.m.	REGISTRATION / BREAKFAST - Diamond Ballroom <i>Sponsored by American Chemistry Council</i>			
8:00-8:30	OPENING REMARKS (Including Best Paper and Scholarship Awards <i>Sponsored by MEDC</i> ) Rani Richardson, 2017 SPE ACCE Chair - Diamond Ballroom			
8:30-9:00	KEYNOTE 1 - Diamond Ballroom: David Erb, <i>Senior R&amp;D Program Manager at the University of Maine Advanced Structures and Composites Center</i> Road Mapping of Structural Thermoplastics and Manufacturing Research at the University of Maine			
9:00-10:00	EXHIBITS (no sessions) / JUDGING FOR STUDENT POSTER COMPETITION (Hall C)			
	ONYX	OPAL/GARNET	EMERALD/AMETHYST	PEARL
10:00-10:30	<b>SESSION 1: ADVANCES IN THERMOPLASTIC COMPOSITES - PART 1 OF 5</b> Anthony Coppola, <i>General Motors</i> Fabrication and Crush Testing of Carbon Fiber Reinforced Thermoplastic Composites for Automotive Energy Absorption Applications	<b>SESSION 2: ENABLING TECHNOLOGIES - PART 1 OF 4</b> Seongchan Paek, <i>General Motors</i> Integration of Cost Models and Process Simulation Tools for Optimum Composite Manufacturing Process	<b>SESSION 3: VIRTUAL PROTOTYPING &amp; TESTING - PART 1 OF 5</b> Nathan Sharp, <i>Purdue University</i> End to End Process Simulation of the High Pressure Resin Transfer Molding Process	<b>SESSION 4: BONDING, JOINING &amp; FINISHING - PART 1 OF 3</b> Andy Stecher, <i>Plasmatreat North America</i> Improved Bonding of Composites Using Plasma Surface Conditioning Process
10:30-11:00	David Erb & Madeline Wehrle, <i>Univ. of Maine Advanced Composites &amp; Structure Center/ John Saiz, Principal Industrial Fellow - Univ. of Cambridge CMIST Roadmap Refinement 1: Roadmap Process Overview</i>	Dr. Iwona Jasiuk, <i>University of Illinois at Urbana Champaign</i> Experimental Ballistics and Comparative Quantification of Novel Polymer Foam Core Sandwich Structures	Johnathan Goodsell, <i>Purdue University</i> Simulation of Injection Over-Molding for High-Rate Composites Processing	Emily Dillingham, <i>BTG Labs</i> Understanding and Controlling the Bond Surface in Manufacturing for Reliable Adhesive Bonding of Composites
11:00-11:30	David Erb & Madeline Wehrle, <i>Univ. of Maine Advanced Composites &amp; Structure Center/ John Saiz, Principal Industrial Fellow - Univ. of Cambridge CMIST Roadmap Refinement 2: Define Application Areas</i>	Scott Blake, <i>Aligned Vision</i> Transitioning Automatic Inspection of Composites from Aerospace to Fully Automated High-Volume Automotive Applications	Srikanth Vallury, <i>Pacific Northwest National Laboratory</i> Integrated Numerical Simulation for SMC in Compression Molding Process	Leo Fifield, <i>Pacific Northwest National Laboratory</i> Joining Fiber Reinforced Polymers to Metals Using Friction Stir Scribe Technology
11:30-12:30	LUNCH (Hall C) <i>Sponsored by Michigan Economic Development Corporation (MEDC) / JUDGING FOR BEST COMPOSITE PARTS</i>			
12:30-1:00	<b>SESSION 5: ADVANCES IN THERMOPLASTIC COMPOSITES - PART 2 OF 5</b> Masaya Matsushita, <i>Yuhco Co., Ltd.</i> Laminar Structure and Destruction in CFRTP Using Carbon Fiber Nonwoven Fabric	<b>SESSION 6: ENABLING TECHNOLOGIES - PART 2 OF 4</b> Norbert Mueller, <i>Engel Austria GmbH</i> TRM Technology and Processing of Thermoplastic Tapes - Iwo Technologies Managing a Common Challenge	<b>SESSION 7: VIRTUAL PROTOTYPING &amp; TESTING - PART 2 OF 5</b> Portia Banerjee, <i>Michigan State University</i> Particle Filtering Based Prognosis of Fatigue Delamination Growth in Composites Using NDE Methods	<b>SESSION 8: BONDING, JOINING &amp; FINISHING - PART 2 OF 3</b> Kerri Sakai, <i>Oakland University</i> Polycarbonate-to-Polycarbonate Single Lap Joints with Polyurethane Film Adhesive
1:00-1:30	Yusoo Han, <i>University of Maine</i> Characterization of Engineering Grade Wood Plastic Composites and their Properties for High Performance Applications	Timo Huber, <i>Fraunhofer ICT</i> Structural Thermoplastic Lightweight Design for Automotive Mass Production: Compression Molding of UD Tapes and LFT	Anthony Coppola, <i>General Motors</i> Validation of Material Models for Crash Simulation of Automotive Carbon Fiber Composite Structures: Project Conclusions	Andrew Valentine, <i>Michigan State University</i> Efficiency of Hybrid Fastening System with Varying Bolt Diameters
1:30-2:00	David Erb, <i>Univ. of Maine Advanced Composites &amp; Structure Center</i> , Development of a Thermoformed Rear Differential Cover Made From Recycled Carbon Fiber	Dr. Ying Fan**, <i>Western University</i> Toward an Integrated Computational Materials Engineering (ICME) Model for D-LFT Process		
2:00-3:00	BREAK / EXHIBITS (no sessions) (Hall C) <i>Sponsored by Michelman</i>			
3:00-3:30	<b>SESSION 9: ADVANCES IN THERMOPLASTIC COMPOSITES - PART 3 OF 5</b> Palanivel Swaminathan, <i>Lanxess</i> Mass Production Applications with TepeX, a Lightweight Thermoplastic Woven Composite	<b>SESSION 10: ENABLING TECHNOLOGIES - PART 3 OF 4</b> Dan Rozelman, <i>Hennecke</i> Hollow HP-RTM Carbon Fiber Parts	<b>SESSION 11: VIRTUAL PROTOTYPING &amp; TESTING - PART 3 OF 5</b> John Moreton, <i>Baylor University</i> Non-Destructive Inclusion Detection and Quantification for Carbon Fiber Laminated Composites with Pulse-Echo Ultrasonic Lens	<b>SESSION 12: BONDING, JOINING &amp; FINISHING - PART 3 OF 3</b> Erik Stitt, <i>Michigan State University</i> Surface Treatment of Thermoplastic for Use in Reversible Multi-Material Joints
3:30-4:00	Nobuhiko Matsumoto, <i>Mitsubishi Gas Chemical Co. Inc.</i> Xylyenediamine Derived Polyamide Resin for High Mechanical Strength Composite Material	Leo Fifield, <i>Pacific Northwest National Laboratory</i> Predictive Engineering Tools for Injection Molded Long Carbon Fiber Thermoplastic Composites	Zhaogui Wang, <i>Baylor University</i> The Applicability of Simplified Viscoelastic Fluid Model to Predict Extrudate Swell and Fiber Orientation in Fused Filament Fabrication Nozzle Flow	Suhail Hyder Vattathurvalappil, <i>Michigan State University</i> Experimental and Numerical Investigation of Bonded Joints Subjected to Transverse Impact Loads
4:00-4:30	David Erb & Madeline Wehrle, <i>Univ. of Maine Advanced Composites &amp; Structure Center / John Saiz, Principal Industrial Fellow - Univ. of Cambridge CMIST Roadmap Refinement 3: Organize and Prioritize Application Areas</i>	Rajendra Prasath Palanisamy, <i>Michigan State University</i> Structural Health Monitoring: Influence of Stress Fields in Propagation of Guided Waves in Composites		
4:45-5:00	Uday Vaidya: Student Poster Competition Winners - Diamond Ballroom <i>Sponsored by Asahi Kasei</i>			
5:00-5:30	KEYNOTE 2 - Diamond Ballroom: Alison Starr, <i>National Composite Centre</i> The UK National Composite Centre: Meeting the Challenges of the Automotive Industry			
5:30-5:45	RECEPTION SPONSOR ADDRESS - Diamond Ballroom			
5:45-7:15	COCKTAIL RECEPTION ( Fireside Room) <i>Sponsored by Hexion</i>			
7:15	Conference Adjourns for the Day			

7:00-8:00 a.m.	REGISTRATION / BREAKFAST - DIAMOND BALLROOM <i>Sponsored by SAMPE</i>			
8:00-8:30	KEYNOTE 3 - Diamond Ballroom: Dale Brosius, <i>Chief Commercialization Officer, IACMI - The Composites Institute</i> IACMI: Fulfiling the Promise for Advanced Composites			
	ONYX	OPAL/GARNET	EMERALD/AMETHYST	PEARL
8:30-9:00	<b>SESSION 13: SUSTAINABLE COMPOSITES - PART 1 OF 2</b> Kyriaki Kalaitzidou, <i>Georgia Institute of Technology</i> Cellulose Nanocrystals For Lightweight Sheet Molding Compounds Composites	<b>SESSION 14: OPPORTUNITIES &amp; CHALLENGES WITH CARBON COMPOSITES - PART 1 OF 2:</b> Dr. Bharati Balizepalli, <i>The Dow Chemical Company</i> High Quality Carbon Fiber Epoxy Prepregs for a Wide Range of Reinforcement Architectures	<b>SESSION 15: ADVANCES IN REINFORCEMENT TECHNOLOGIES- PART 1 OF 1</b> Robert Brüll, <i>Institute for Textile Technology of RWTH Aachen University</i> Suitability of Basalt Fiber Reinforced Polyamide-6 for Crash-Relevant Automotive Components	<b>SESSION 16: NANOCOMPOSITES - PART 1 OF 2</b> Ezatollah Amini, <i>University of Maine</i> Effect of Adding Cellulose Nanocrystals (CNC) on the Mechanical and Thermal Behavior of Acrodur® Biocomposites
9:00-9:30	Omar Faruk, <i>University of Toronto</i> Engine Components from 100% Recycled Carbon Fiber Reinforced Composite Materials	Jeff Dahl, <i>Ford Motor Company</i> Carbon Fiber Composite B-Pillar Reinforcement Manufacturing: Ply Nesting and Automated Ply Layup	Steve Bassetti, <i>Michelman</i> Fiber Sizing Fundamentals and Emerging Technologies	Megan Hathcock, <i>University of Alabama</i> Opportunities to Improve Carbon Fiber Composites for Vehicle Lightweighting Using Graphene Additives
9:30-10:00	Leonardo Simon, <i>University of Waterloo</i> Evaluation of Cellulose and Glass Fiber in Recycled Polyamide Thermoplastic Composites	Jeff Dahl, <i>Ford Motor Company</i> Carbon Fiber Composite B-Pillar Reinforcement Manufacturing: Automated Preforming and Molding	Pradip Bahukudumbi, <i>Coats Performance Materials</i> A New Fiber Composite Technology for Cost Effective Weight Reduction in Automotive	Jo Anne Shatkin, <i>Vireo Advisors, LLC</i> State of the Science on the Safety of Carbon-Based Nanomaterial Composites
10:00-11:00	BREAK / EXHIBITS (no sessions) (Hall C) <i>Sponsored by Plasan Carbon Composites</i>			
11:00-11:30	<b>SESSION 17: BUSINESS TRENDS &amp; TECHNOLOGY SOLUTIONS - PART 1 OF 1</b> Volker Plehn, Kevin Lange, <i>Toray Automotive</i> Future Trends for High Performance Materials in Structural Components for Existing and Alternative Propulsion System	<b>SESSION 18: ENABLING TECHNOLOGIES - PART 4 OF 4</b> Andrew Maxey, <i>Vartega, Inc.</i> Demonstration of Recycled Continuous Carbon Fiber	<b>SESSION 19: ADDITIVE MANUFACTURING &amp; 3D PRINTING- PART 1 OF 1</b> Dr. Roger Assaker, <i>e-Xstream engineering</i> Using Additive Manufacturing Simulation to Enable Confident Lightweight Automotive Design	
11:30-12:00	Jan-Anders Mansson, <i>Purdue University</i> Cost Drivers in Composites Manufacturing	Adam Halsband, <i>Ruhl Strategic Partners</i> Simulation Driven Design: Enabling & Accelerating Lightweighting in Automobiles	Lu Wang**, <i>The University of Maine</i> Cellulose Nanofibrils-Reinforced Polypropylene for Extrusion-Based Additive Manufacturing	
12:00-1:00	LUNCH (Hall C) <i>Sponsored by Coats Performance Materials / JUDGING FOR BEST COMPOSITE PARTS</i>			
1:00-1:30	<b>SESSION 20: ADVANCES IN THERMOPLASTIC COMPOSITES - PART 4 OF 5</b> Badin Pinpathomrat, <i>Kyoto Institute of Technology</i> Mechanical and Adhesive Properties of Insert Injection Molded Aramid/ Nylon Composites	<b>SESSION 21: OPPORTUNITIES &amp; CHALLENGES WITH CARBON COMPOSITES - PART 2 OF 2</b> Amit Chaudhary, <i>The Dow Chemical Company</i> Method to Utilize Aligned Carbon-Fiber Prepreg Trim Scrap for Structural Applications	<b>SESSION 22: VIRTUAL PROTOTYPING &amp; TESTING - PART 4 OF 5</b> Constantin Bauer, <i>Math2Market GmbH</i> Micromechanical Simulation of a Multifunctional Hybrid Composite with Continuous Steel and Carbon Fiber Reinforcement	<b>SESSION 23: NANOCOMPOSITES - PART 2 OF 2</b> Mehdi Tajvidi, <i>University of Maine</i> Where Nano and Sustainable Meet: Opportunities and Challenges for Automotive Applications Using Cellulose Nanomaterials
1:30-2:00	Stephen Beasley, <i>Krauss-Maffei Corporation</i> New Lightweight and Surface Technologies for a New Field of Applications	Dr. Stephen Jones, <i>Solvay</i> SolvLite™ 730 Prepreg: Breaking the High-Volume Barrier for Structural Composites	Robert Hart**, <i>University of Iowa</i> Sensing Low Velocity Impact-Induced Delamination in Carbon Fiber Reinforced Composites Through Electrical Resistance Measurements	Dr. Helen Lentzakis, <i>NanoXplore</i> Graphene Enhanced Polymer Nanocomposites
2:00-2:30	Darin Grinsteiner, <i>Celanese</i> Thermally Conductive Thermoplastics: Problems and Solutions for Exterior Automotive Heat Management Systems		Dr. Frank Abdi, <i>AlphaSTAR Corporation</i> Crush Simulation of Compression Modeled Chopped Fiber Box Section by a De-Homogenized Multi-Scale Computational Methodology	Jacques Poulin, <i>NanoXplore</i> Graphene Enhanced Composites for High Frequency EMI Shielding
2:30-3:30	EXHIBITS (HALL C)			
3:30-5:00	PANEL DISCUSSION Moderator: Dale Brosius, <i>Institute for Advanced Composites Manufacturing Innovation (IACMI)</i>			
5:00-5:15	RECEPTION SPONSOR ADDRESS - Diamond Ballroom			
5:15-7:00	COCKTAIL RECEPTION ( Fireside Room) <i>Sponsored by PPG</i>			
7:00	Conference Adjourns for the Day			

7:00-8:00 a.m.	REGISTRATION / BREAKFAST - DIAMOND BALLROOM <i>Sponsored by Arkema</i>			
8:00-8:30	KEYNOTE 4 - Diamond Ballroom: Dr. Patrick Blanchard, <i>Global Technical Leader, Composites, Ford Motor Company</i> Completing The Transition From Metallic To Multi-Material Automotive Solutions - Challenges and Opportunities			
	ONYX	OPAL/GARNET	EMERALD/AMETHYST	PEARL
8:30-9:00	<b>SESSION 24: ADVANCES IN THERMOPLASTIC COMPOSITES - PART 5 OF 5</b> Cary Veith, <i>Esprix Technologies, LP</i> Advances in Aliphatic Polyketone Composites	<b>SESSION 25: ADVANCES IN THERMOSET COMPOSITES - PART 1 OF 2</b> Jeff Klipstein, <i>AOC Resins</i> Advances in Low Density SMC for Automotive Class A and Structural Applications		
9:00-9:30	Probir Guha, <i>Coats Performance Materials</i> Weight Reduction in Automotive Components	Thomas Skelskey, <i>Ashland LLC</i> Developing Low VOC, Low Odor, Low Residual Styrene SMC Products		
9:30-10:00	Hong Xu, <i>Hanwha Azdel, Inc.</i> Light Weight Reinforced Thermoplastic Composite with Improved Formability	Jim Emrick, <i>Ashland LLC</i> Specific Modulus Targeting for SMC		
10:00-10:30	John Fialka, <i>Styrolution</i> New Material Solution for Lightweight Design	Sigrid ter Heide, <i>Hexion</i> Epoxy Matrix Technologies Enabling Cost Efficient Mass Production of Composite Leaf Springs		
10:30-11:30	BREAK / EXHIBITS (no sessions) (Hall C) <i>Sponsored by A. Schulman</i>			
11:30-12:30	LUNCH (Hall C) <i>Sponsored by Magna / LAST CHANCE TO VOTE FOR BEST PARTS</i>			
12:30-1:00	<b>SESSION 26: SUSTAINABLE COMPOSITES - PART 2 OF 2</b> Mariana Desiree Reale Batista**, <i>Michigan State University</i> Hybrid Cellulose-Inorganic Reinforcement Polypropylene Composites: Lightweight Materials for Automotive Applications	<b>SESSION 27: ADVANCES IN THERMOSET COMPOSITES - PART 2 OF 2</b> Cedric Ball, <i>Hexion</i> Phenolic Molding Compounds in Automotive Powertrain Applications	<b>SESSION 28: VIRTUAL PROTOTYPING &amp; TESTING - PART 5 OF 5</b> Philippe Hedert, <i>e-Xstream engineering</i> Modeling Compression Molded Materials Reinforced with Chopped Long Fibers	
1:00-1:30	Joyanta Goswami, <i>Georgia Institute of Technology</i> Glass Fiber/Nanocellulose/ Unsaturated Polyester Resin Composite: Processing, Properties and Potential for Automotive Applications	Dr. Ian Swentek, <i>Hexion</i> Methods to Improve Mechanical Performance of Carbon Fiber Epoxy SMC	Dustin Souza, <i>e-Xstream engineering</i> Virtual Characterization of Short Chopped Fiber Reinforced Plastics Behaviors	
1:30-2:00	Douglas Gardner, <i>University of Maine</i> Mechanical Properties of Hybrid Basalt, Carbon Fiber-Filled Recycled Polypropylene and Polyamide 6 Composites	Daniel Park, <i>Fraunhofer Project Center for Composites Research</i> New Developments in Polyurethane Sheet Molding Compound	Dr. Frank Abdi, <i>AlphaSTAR Corporation</i> Multi-Scale Material Modeling and Progressive Failure Analysis of a Hybrid Composite Bumper	
2:00-2:30	Michel Champagne, <i>National Research Council Canada</i> Lightweight D-LFT Cellulose-Based Composites for Semi-Structural Applications	Gleb Meiron, <i>Fraunhofer Project Center for Composites Research</i> Investigation of Mechanical Property Differences Between Composites Produced Using Vacuum Assisted Liquid Compression Molding and High Pressure Resin Transfer		
2:30-2:45	CLOSING REMARKS & PART INNOVATION AWARDS: Rani Richardson, 2017 SPE ACCE Chair - Diamond Ballroom			
2:45	CONFERENCE ADJOURNS FOR THE YEAR			
	EXHIBITION HOURS: Wednesday: 9:00 a.m. to 5:00 p.m. Thursday: 8:30 a.m. to 5:00 p.m. Friday: 8:30 a.m. to 1:30 p.m.			

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\*\* award or scholarship winner