1:30 pm - 4:00 pm	**New Technology Forum- Surface Engineering: The Next Frontier** White River C/D Moderator: Roger Avakian
1:30 pm - 2:00 pm	Reinventing the Biological Interface Ethan Mann, Director of Research and Quality , Sharklet technologies
2:00 pm - 2:30 pm	Three-Dimensional Hierarchical Materials by Memory-Based, Sequential Wrinkling Teri Odom, Professor of Chemistry and Professor of Materials Science and Engineering, Northwestern University
2:30 pm - 3:00 pm	Amphiphilic Silicones to Control Biological Adhesion

	Melissa Grunlan, Texas A&M
3:00 pm - 3:30 pm	Amine Stabilized Alkyl Boranes: Grafts New Surface to Polymers
	Mark Torgerson, BASF
3:30 pm - 4:00 pm	“Radical” Routes to Printing and Patterning of Plastics by Room Temperature Alkylborane Technology
	Shaun Ahn, Technical Leader and Research Scientist, Dow Corning Corporation
1:30 pm - 4:00 pm	**Injection Molding- Emerging Technologies**
	White River A
	Moderator: Brenda Clark
1:30 pm - 2:00 pm	Precision Micro Feature Moulding Using Vacuum Assisted Moulding Technique For Polymeric Microfluidic Chip Applications
	Ge Chen, Singapore Institute of Manufacturing Technology
2:00 pm - 2:30 pm	Process-integrated printing technology for plastic parts during injection molding
	Agnieszka Kalinowska, Chemnitz University of Technology
2:30 pm - 3:00 pm	Atomized spray as a process fluid for fluid-assisted injection molding
	Matthias Theunissen, Institute of Plastics Processing at RWTH Aachen University
3:00 pm - 3:30 pm	High precision and repeatability in micro injection molding using the inverse screw
	Torben Fischer, Institute of Plastics Processing (IKV) at RWTH Aachen University
3:30 pm - 4:00 pm	Back-Flow Compensation (BFC) for Thermoplastic Injection Molding
	Stefan Kruppa, R&D Engineer , KraussMaffei Technologies GmbH
4:00 pm - 4:30 pm	An Investigation of Real-Time Monitoring of Shear Induced Cavity Filling Imbalances During Polymer Injection Molding
	Qi Li, Lehigh Universiry
1:30 pm - 4:00 pm	**Injection Molding- Materials II**
	White River B
	Moderator: David Kusuma
1:30 pm - 2:00 pm	Measuring Thermal Crystallinity in PET
	Masoud Allahkarami, OSU-Tulsa (HRC)
2:00 pm - 2:30 pm	INJECTION MOLDING AND MECHANICAL CHARACTERIZION OF CARBON FIBER-WOODFIBER/POLYPROPLENE HYBRID COMPOSITES
	Gangjian Guo, Bradley University
2:30 pm - 3:00 pm	EFFECT OF RUBBER ADDITION ON STRUCTURE AND PROPERTY DISTRIBUTION

	OF THIN-WALL INJECTION MOLDED POLYPROPYLENE
3:00 pm - 3:30 pm	Kazushi Yamada, Assistant Professor, Kyoto Institute of Technology INFLUENCES OF PROCESSING PARAMETERS, MATERIAL, AND MOLD GEOMETRY ON THE SHAPE OF CAVERNS AS A QUALITY PARAMETER FOR ELECTROPLATING ON PLASTICS
3:30 pm - 4:00 pm	Jens Peter Siepmann, University of Duisburg-Essen INTERFACIAL FRACTURE BEHAVIOR OF INJECTION MOLDED PARTS
1:30 pm - 5:00 pm	Matthieu Fischer, Leibniz-Institut fuer Polymerforschung Dresden e.V. **Extrusion-Single Screw Extrusion** JW Grand Ballroom 7 Moderator: Kevin Slusarz
1:30 pm - 2:30 pm	Keynote: Fifty years addressing a range of industrially relevant problems through research fundamentals
2:30 pm - 3:00 pm	Gregory Campbell, Castle Associates The Incumbent Resin Effect for the Single-Screw Extrusion of Polyethylene Resins
3:00 pm - 3:30 pm	Mark Spalding, Fellow in the Materials & Parts Processing Group , Dow Chemical Company PRODUCT QUALITY CONTROL FOR SINGLE SCREW EXTRUSION PROCESS
3:30 pm - 4:00 pm	Zhijun Jiang, HKUST MEASUREMENT OF THERMOPLASTIC POLYURETHANE (TPU) VISCOSITY WITH SLIT DIE RHEOMETER
4:00 pm - 4:30 pm	Qingping Guo, EHC Canada Inc Optimization of Maddock-Style Mixers for Single-Screw Extrusion
4:30 pm - 5:00 pm	Xiaofei Sun, Dow Chemical SINGLE PELLET EXTRUSION
1:30 am - 5:00 pm	David Kazmer, Univ. Mass. Lowell **Extrusion- Forming Processes II** JW Grand Ballroom 8 Moderator: Olivier Catherine
1:30 pm - 2:30 pm	Keynote: Enhancing Productivity of Extrusion Processes by Integrative Research
2:30 pm - 3:00 pm	Christian Hopmann, Chair of Plastics Processing, RWTH Aachen University A PROTOCOL FOR FILAMENT PRODUCTION AND USE

3:00 pm - 3:30 pm	David Kazmer, Univ. Mass. Lowell MICROPELLETIZATION AND THEIR APPLICATION TO MANUFACTURE POROUS PLASTIC PARTS
3:30 pm - 4:00 pm	Christian Schäfer, Polymer Engineering Center, UW-Madison THE EFFECT OF VISCOUS ENCAPSULATION ON LAYER UNIFORMITY AND RHEOLOGY IN MULTILAYER COEXTRUSION
4:00 pm - 4:30 pm	Hyunwoo Kim, The Dow Chemical Company ROOT CAUSE ANALYSIS AND FIXING OF COEXTRUDED POLYOLEFIN BLOWN FILM DEFECTS
4:30 pm - 5:00 pm	Kurt Koppi, Dow Chemical Increased throughputs in blown film extrusion by using a contact cooling sleeve
5:00 pm - 5:30 pm	Marco Hennigs, Institute of Plastics Processing at RWTH Aachen University Nonwoven Microfilters Produced By a Novel Melt Coextrusion-Process
1:30 pm - 4:00 pm	Ravi Ayyar, Senior Scientist, PolymerPlus **Alloys and Blends- Compatibilization, Morphology Development and Characterization of Polymer Blend Systems** Room 305/306 Moderator: Elliot Lee
1:30 pm - 2:00 pm	THE INFLUENCE OF BLEND COMPOSITION AND ADDITIVE TYPE ON THE PROPERTIES OF LDPE-PA6-BLENDS
2:00 pm - 2:30 pm	Christoph Burgstaller, Managing Director and Head of R&D, TCKT THERMOPLASTIC SEMICONDUCTIVE POWER CABLE JACKET
2:30 pm - 3:00 pm	Jianmin Liu, Lead Engineer, General Cable PHASE BEHAVIOR OF POLYAMIDE 6/612 BLENDS
3:00 pm - 3:30 pm	Ying Shi, R&D Engineer, A.Schulman RECYCLING OF PP/LDPE BLEND: MISCIBILITY, THERMAL PROPERTIES, RHEOLOGICAL BEHAVIOR AND CRYSTAL STRUCTURE
3:30 pm - 4:00 pm	Chuanchom Aumnate, Graduate Student, University of Wisconsin-Madison MORPHOLOGY OF HDPE/PS BLENDS ALONG THE AXIAL POSITION IN A NOVEL CO-ROTATING NON-TWIN SCREW EXTRUDER Baiping Xu, Guangdong Industry Polytechnic

1:00 pm - 6:00 pm	**Plastic Pipes and Fittings-Durability and Joining of Structural and Pressure Piping** Room 103/104
1:00 pm - 2:00 pm	Keynote: Design and performance of bell and spigot joints for thermoplastic pipes Ian Moore
2:00 pm - 2:30 pm	Comparative Testing of Pre-Pigmented and Natural Compound + Coloring Masterbatch HDPE Pipes for Potable Water Applications Douglas Keller, LyondellBasell Industries
2:30 pm - 3:00 pm	Selecting the Best Remediation Option for CPVC Piping Systems Duane Priddy, Plastic Failure Labs
3:00 pm - 3:30 pm	Crystallinity Distribution Analysis By Raman Mapping for Polyethylene of Raised Temperature Resistance After Long-Term Hot Water Immersion Tests Kazushi Yamada, Assistant Professor, Kyoto Institute of Technology
3:30 pm - 4:00 pm	Structural Design & Performance of Thermoplastic Joints for Non-Pressure Applications James Goddard, JimGoddard3, LLC
4:00 pm - 4:30 pm	EVALUATION OF CONSUMPTION PROCESS ON ANTIOXIDANTS IN POLYETHYLENE BY CHEMILUMINESCENCE MEASUREMENT METHOD Koichi Hanamura, Graduate Student, Kyoto Institute of Technology
4:30 pm - 5:00 pm	POLYETHYLENE PIPE PERFORMANCE – OBSERVATIONS AND INSIGHTS FROM EXPERIMENTAL INVESTIGATIONS Ashish Sukhadia, Chevron Phillips Chemical Company LP
5:00 pm - 5:30 pm	Effect of Residual Chlorine on Durability of Plastic Pipes Used for Hot Water Supply Takehiro Fujii, President, Shinwasangyo Co.LTD
5:30 pm - 6:00 pm	Best paper Presentation
1:30 pm - 3:30 pm	**Electrical and Electronics Session** White River I Moderator: Wei Zhao
1:30 pm - 2:00 pm	The Potential of Expanding Elongation Flows to Increase the Through-plane Thermal Conductivity Otto Skrabala, Institut für Kunststofftechnik, University of Stuttgart
2:00 pm - 2:30 pm	POLYMER MULTILAYER FILMS FOR HIGH TEMPERATURE DIELELCTRIC APPLICATIONS

2:30 pm - 3:00 pm	Kezhen Yin, Case Western Reserve University Control Strategies for Web Handing
3:00 pm - 3:30 pm	Mathias Radziwill, Siemens HIGH TEMPERATURE AND HIGH ENERGY DENSITY NANOLAYER FILM CAPACITORS
1:30 pm - 3:30 pm	Deepak Langhe, PolymerPlus LLC **Applied Rheology-Assessing Processibility I** Room 309/310
1:30 pm - 2:00 pm	APPLIED RHEOLOGY FOR UNDERSTANDING FLOW INSTABILITIES IN POLYMER PROCESSING
2:00 pm - 2:30 pm	Martin Zatloukal, Professor, Tomas Bata University in Zlin VISCOSITY MEASUREMENT OF MULTILAYER STRUCTURES VIA PARALLEL PLATE RHEOLOGY
2:30 pm - 3:00 pm	Kurt Koppi, Dow Chemical PREDICTING MOONEY VISCOSITY FROM ONLINE RHEOLOGY MEASUREMENTS
3:00 pm - 3:30 pm	Brenda Colegrove, Principal Research Scientist, The Dow Chemical Company CONTROL OF RHEOLOGICAL RESPOSES UNDER ELONGATIONAL FLOW FOR POLYOLEFIN MELTS
1:30 pm - 5:00 pm	Masayuki Yamaguchi, Japan Advanced Institute of Science and Technology **Joining of Plastics and Composites- Polymer Welding** Room 102 Moderator: David Grewell
1:30 pm - 2:00 pm	Generating Ultrasonically Welded Parts with Improved Strength and Reliability for Critical Applications in Medical Device Manufacturing by Utilizing Advanced Melt Flow Controls of Servo Driven Ultrasonic Welding Equipment.
2:00 pm - 2:30 pm	Alexander Savitski, Chief Engineer, Dukane Corporation ULTRASONIC SEALING TOOL DESIGN FOR THIN FILM PLASTICS
2:30 pm - 3:00 pm	Miranda Marcus, EWI Comparative Analysis of Energy Director Styles with Servo-Driven Ultrasonic Welding of Valox 325
3:00 pm - 3:30 pm	Miranda Marcus, EWI EXPERIMENTAL METHODS TO DETECT DEGRADATION AT THE WELD CAUSED BY

	LASER TRANSMISSION WELDING
3:30 pm - 4:00 pm	Philip Bates, Royal Military College of Canada Welding of incompatible thermoplastic polymers
4:00 pm - 4:30 pm	Mirko Albrecht, Chemnitz University of Technology Development of a flexible polymer joining center
4:30 pm - 5:00 pm	Jan-Michael Geck, University of Kassel Alternative welding processes in apparatus, tank and pipeline construction at Environmental Stress Cracking
1:30 pm - 5:00 pm	Ronald Dietz, Chemnitz University of Technology **Decorating and Assembly Session-Advances and Trends in Plastic Decoration and Assembly** Room 312 Paul Uglum Moderators: Ken Holt
1:30 pm - 2:00 pm	Surfaces as Sources - Combining Form with Function in Plastics Automotive Interior Components
2:00 pm - 2:30 pm	Marshall Paterson, ADS New Materials Bring New Testing Challenges
2:30 pm - 3:00 pm	Alan Jaenecke, Taber Industries Clean Enough? The Importance of a Clean Surface to Attaining Adhesion
3:00 pm - 3:30 pm	Andy Stecher, Plasmatreat North America Bonding of Plastics
3:30 pm - 4:00 pm	George Ritter, EWI Short Pulsed Laser Marking
4:00 pm - 4:30 pm	Jake Wieloch, Rofin-Baasel, Inc. Mastering Plasma &Flame Surface Treating Technologies to Improve Coating Adhesion Operations
4:30 pm - 5:00 pm	Mark Plantier, Enercon Industries Bridging the Gap - Liquid Solutions for Joint Sealing
1:30 pm - 5:00 pm	Timothy Holmes, Application Engineer , Henkel **Composites & Failure Analysis and Prevention- Failure Analysis in Composites**

White River G
Moderator: Brian Ralston
Moderator: Antoine Rios

1:30 pm - 2:30 pm
Advances in the Prediction of Weld Line Strength Failures for Fiber Filled Plastics

Matt Jaworski, Technical Specialist , Autodesk

2:30 pm - 3:00 pm
Why it is Not Always Better to Use Fiber Reinforced Plastics

Antoine Rios, The Madison Group

3:00 pm - 3:30 pm
A THROUGH-PROCESS MODELING APPROACH FOR ANISOTROPIC PERFORMANCE AND LIFETIME EVALUATION OF FIBER REINFORCED THERMOPLASTIC PARTS

Amin Sedighiamiri, Senior Scientist, SABIC

3:30 pm - 4:00 pm
DEGRADATION INSPECTION OF GFRP STORAGE TANK WITH LONG-TERM USE UNDER HYDROCHLORIC ACID

Masumi Ikegami, Kyoto Institute of University

4:00 pm - 4:30 pm
Endurance Regression Testing: A Method to Replace ASTM D2992

David Granderson, NOV - Fiber Glass Systems

4:30 pm - 5:00 pm
INTERLAMINAR FRACTURE TOUGHNESS OF WOVEN GLASS FIBER-EPOXY LAMINATES WITH CARBON NANOTUBE BUCKYPAPERS

Diego Pedrazzoli, Research Associate, Case Western Reserve University

1:30 pm - 5:00 pm
Composites- Composites Processing
White River H
Moderator: Shankar Srinivasan

1:30 pm - 2:00 pm
IMPACT OF FOAMING ON FIBER BREAKAGE, CONDUCTIVITY, AND EMI SHIELDING OF INJECTION-MOLDED POLYPROPYLENE/STAINLESS STEEL FIBER COMPOSITES

Amir Ameli, Washington State University

2:00 pm - 2:30 pm
IN-SITU-PULTRUSION – STRUCTURAL THERMOPLASTIC FRP-PARTS

Stefan Epple, Ph.D Student, Institut für Kunststofftechnik

2:30 pm - 3:00 pm
ELECTROSPUN PCL/NC COMPOSITE FIBERS AND THEIR MINERALIZATION

Zhixiang Cui, Fujian University of Technology

3:00 pm - 3:30 pm
Effects of Thermoplastic Elastomers on Mechanical Properties of Glass Fiber Reinforced Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)

3:30 pm - 4:00 pm	Takashi Kuboki, University of Western Ontario STUDY OF ULTRASONIC TREATMENT ON PP/CNT, PP/GNP AND PP/CB COMPOSITES USING CONTINUOUS ULTRASONIC TWIN-SCREW EXTRUSION
4:00 pm - 4:30 pm	Jing Zhong, The University of Akron Study on Nano Polyacrylonitrile Fiber by Cotton Candy Method
4:30 pm - 5:00 pm	Hiroyuki Hamada, Professor, Kyoto Institute of Technology Optimizing Process Condition of Compression Molding: From Material Properties Characterization to Numerical Simulation
1:30 pm - 3:00 pm	Chao-Tsai Huang, Tamkang University **Polymer Modifiers and Additives** Room 203
1:30 pm - 2:00 pm	Influence of elastomer on morphology and mechanical properties of Nylon 6/OMMT/elastomer composite
2:00 pm - 2:30 pm	Xiaohong Yu, Sunshow NOVEL THERMOPLASTIC POLYMER FOR SOFT TOUCH APPLICATIONS
2:30 pm - 3:00 pm	Helen Lentzakis, Polymer Dynamix Controlled life technology - plastic waste solution.
1:30 pm - 4:00 pm	Michael Stephens, Technical Director , Symphony Environmental **Thermoplastic Materials and Foams- Structure and Properties of Thermoplastics and Foams** White River J Moderator: Anson Wong
1:30 pm - 2:00 pm	Microstructure-Property Relationship for Impact Energy Absorption of Functionally Graded Porous Structures of Acrylonitrile Butadiene Styrene (ABS)
2:00 pm - 2:30 pm	Farooq Al Jahwari, University of Toronto IMPROVING THE MECHANICAL PROPERTIES AND FLAME RETARDANCY OF MULTILAYERED PP FOAM/FILMS VIA THE INTRODUCTION OF FLAME RETARDANTS
2:30 pm - 3:00 pm	Sangjin Lee, Case Western Reserve University PROPERTIES OF MELT BLENDED CHITIN NANOWHISKER-POLYPROPYLENE COMPOSITES
3:00 pm - 3:30 pm	Sharon Li, University of Toronto Stability of Poly(etheretherketone) and Poly[2,2’-(m-phenylene-5,5’-bibenzimidazole]

	Blend Under Harsh Environments
	Peng Liu, Texas A&M Univeresity
3:30 pm - 4:00 pm	Viscoelastic Shear Analysis of Polymeric Foam Midsoles
	Alex Brill, School
1:30 pm - 4:30 pm	**Polymer Analysis Session: Modelling and Innovative Methods**
	Room 302/303
	Moderator: Greg Kamykowski
1:30 pm - 2:00 pm	Modeling and simulation of the foaming process in elastomers
	Nora Catalina Restrepo Zapata, Ph.D Student, Universidad Nacional de Colombia
2:00 pm - 2:30 pm	Time Temperature Superposition of Short Term Stress Relaxation Behavior to understand retention of material modulus over time
	Prasanta Mukhopadhyay, SABIC
2:30 pm - 3:00 pm	Non-Destructive Characterization of Hygrothermally Aged Polymers
	Matthias Hüttner, University of Paderborn
3:00 pm - 3:30 pm	Capacitance to digital converter method for dielectrostriction of polymeric materials
	Yi Zhang, Ph.D Student, Huazhong University of Science and Technology
3:30 pm - 4:00 pm	Ultrasonic Measurement of Particle Concentration in Polystyrene-Glass beads Composites by a Differential Scheme
	Zou Weijian, 1National Engineering Research Center of Novel Equipment for Polymer Processing, South China Univers
4:00 pm - 4:30 pm	Understanding Reaction Products of Polyethylene-Acrylic Acid Dispersions with Calcium Chloride
	Praveenkumar Boopalachandran, Dow Chemical Company
1:30 pm - 4:00 pm	**Additive Manufacturing/3D Session IV**
	Room 101
1:30 pm - 2:30 pm	Future Fabricated With Light - Keynote
	Xinyu Gu, Carbon 3D
2:30 pm - 3:00 pm	Numerical Prediction of Stiffness and Strength of a Highly Complex Topology Optimized Thermoplastic Part designed for 3D Printing
	Subhransu Mohapatra, Lead Scientist, SABIC
3:00 pm - 3:30 pm	Drug-Eluting AM Medical Materials

3:30 pm - 4:00 pm

Martin Petrak, Orthopedic Innovation Center
Behavior of 3Dp Models

D Mahudeeswaran, L1 / CDU Australia