

Speaker Biographies 2015



Jacob Anderson
****2015 Dr. Jackie Rehkopf Best Paper Award winner****

Jacob Anderson is a Senior Research & Development Engineer at the PPG Fiber Glass Science and Technology Center in Shelby, NC, USA. He is a project leader in the Applications Development

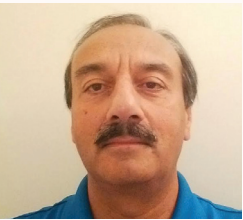
process and focuses on the processing and evaluation of long-fiber-thermoplastic composites.



Roger Assaker

Tech entrepreneur, Dr. Roger Assaker is CEO and Co-Founder of e-Xstream engineering, a software and engineering services company that is 100% focused on advanced materials modeling. Since September 2012, he also has been the Chief Material Strategist of MSC Software.

He holds both Ph.D. and M.S. degrees in Aerospace Engineering with a strong focus on nonlinear computational mechanics – an area of expertise where he now has over 20 years' experience. Assaker has complemented his engineering education with an M.B.A. degree in International Business, plus has taken additional advanced business and technology entrepreneurship courses from prestigious schools such as Massachusetts Institute of Technology and Harvard University. In addition to growing e-Xstream engineering into global leadership in advanced composite modeling, Assaker is also Vice-Chair of NAFEMS Ltd.'s (National Agency for Finite Element Method & Standards) Composite Working Group and an active member of other technical material associations such as SPE and SAMPE.



Atul Bali

Atul Bali is the CEO of Leamington, Ontario, Canada-based Competitive Green Technologies. He has 35 years of professional experience having worked and lived on 3 continents and been General Manager of The Timken Company in Europe and President of

Inscape Inc. in Canada. Bali has a passion to commercialize green technologies that reduce the dependence on fossil fuels and offer a competitive and sustainable solution. Such solutions offered by his company include natural fiber-filled bio-composites to replace conventional mineral or glass-filled polymer systems for auto industry.

Andrea Birch

Not available at press time.



Ankur Bhosale

Ankur Bhosale is an Applications Development Engineer at BASF where his primary focus is on the transportation industry, and he is responsible for implementing solutions to lightweight structural applications in the powertrain and chassis segments. Bhosale has

worked at BASF since 2000. He has extensive knowledge and expertise in designing lightweight composites applications. He has over 11 years' experience in computer-aided engineering and leverages that expertise in his current role. Bhosale is a key member of BASF's Joining Technology Team and also leads the vibration welding sub-team. He holds a Master's degree in Mechanical Engineering from Wayne State University.



Dr. Craig Blue

Dr. Craig Blue is Program Director for Advanced Manufacturing at Oak Ridge National Laboratory (ORNL). A recognized leader and champion of applied research and development at ORNL, Blue holds faculty appointments at the University of Tennessee, University of North Texas,

and the Colorado School of Mines. His vision and comprehensive understanding of advanced manufacturing technologies led to creation of the U.S. Department of Energy's (DOE) Manufacturing Demonstration Facility (MDF) at ORNL, which he currently directs as part of a \$42-million USD portfolio of research sponsored by DOE. Current research activities of the Advanced Manufacturing Program comprise additive manufacturing, carbon fiber and composites, advanced manufacturing, low temperature materials synthesis, lightweight metals processing, roll-to-roll processing, magnetic field processing, energy storage, critical materials, and technology deployment. Blue led the proposal to establish the Institute for Advanced Composites Manufacturing Innovation (IACMI), the newest addition to the National Network of Manufacturing Innovation, a White House initiative to help U.S. manufacturers employ leading-edge technology to become more competitive. IACMI is a partnership of industry, universities, national laboratories, and federal, state, and local governments working together to benefit the nation's energy and economic security by sharing existing resources and co-investing to accelerate development and commercial deployment of advanced composites. He has assumed duties as the CEO of this new institute. As Distinguished Research Scientist and Group Leader he was responsible for revitalizing and building of ORNL's materials processing activities to national prominence. While Deputy Director for the Materials Science and Technology Division, a \$100-million USD materials research division, he was responsible for driving the development of new applied programs. During nearly 20 years of experience in conducting research in materials and manufacturing technologies, Blue has authored nearly 100 open literature publications, been awarded 15 patents, and 10 *R&D 100* Awards. He has served by invitation on numerous scientific and technical review panels, committees, and convocations convened by the National Science Foundation and National Academies of Sciences and Engineering. He has been honored by selection as ORNL Distinguished Engineer in 2003 and as Fellow of ASM International in 2009.

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Stuart Brown

Dr. Stuart Brown is Managing Partner of Veryst Engineering, an engineering consulting firm located in the Boston area. Prior to founding Veryst Engineering, Brown was director of the Boston office of Exponent, Inc. Before Exponent, he was on the faculty

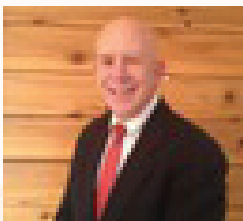
of the Department of Materials Science and Engineering at the Massachusetts Institute of Technology. He has performed research in metal forming operations and other industrial processes, thin films, and MEMS.



Marcel Bruijn

Marcel Bruijn obtained a Bachelor's degree in Mechanical Engineering at The Hague University of Applied Sciences in the Netherlands. During this study he came into contact with composites via his internships at Airborne Composites. After working at Airborne for almost a

year he moved to the University of Leuven (KUL) in Belgium to obtain his Master's degree in Materials Engineering with a specialization in Polymers & Composites. He worked for 2-1/2 years at the KUL as a Research Assistant within the composites research group of Prof. Verpoest. Via the KUL he came in contact with Huntsman and joined the company's Polyurethanes division in Everberg, Belgium in 2009. As Research Scientist-Business, Development, and later Application Specialist Bruijn has focused for the past 7 years on composite applications for polyurethane resins with a main focus the last 4 years on high-volume manufacturing of (semi-) structural composite parts for the automotive industry.



Chuck Buckley

Chuck Buckley is currently the DELMIA Sales Director of Aerospace and Defense at Dassault Systèmes. In 2011 he assumed his role with the DELMIA brand as a result of the acquisition of Intercim. Buckley was one of the original founders of Intercim and has been actively

involved in promoting a operations intelligence for 30 years. Today he leads a team that is focused on creating new process capabilities and manufacturing solutions for Dassault Systèmes' DELMIA brand. DELMIA allows manufacturers to virtually experience their entire factory production from the impact of design to determining how to meet global demands. Buckley holds a B.A. degree in Economics from Rutgers University, and a M.B.A. degree from Seton Hall University. He currently resides in Divide, Colorado with his wife, 4 children, horses, llamas, sheep, chickens, and dogs, and plays guitar on Saturday nights in a local watering hole.



Neal Corey

Neal J. Corey is a Product Design Engineer in Research & Advanced Powertrain Engineering at Ford Motor Co. In this role, he is currently responsible for innovation and development of future powertrain technologies for the company. He has worked at Ford for

over 29 years, primarily in Powertrain. He has vast experience in both powertrain design and engineering, primarily in cylinder head and block design, piston development, powertrain vehicle packaging, engine sealing systems, and engine PCV systems. Some of the many projects he has worked on include the Electronic Valve Actuation Program, Duractec 3.5L EcoBoost, Puma/Caterpillar Diesel Program, DOE 2.0L Engine Program, Hurricane Engine Program, and the MMLV Engine Program. In his latest assignment on the MMLV Engine, he worked closely with BASF and Montaplast to develop the first-ever structural engine front cover and oil pan made from carbon fiber composites. Corey holds a B.S. degree from the University of Detroit-Mercy and is the winner of the prestigious Henry Ford Technology Award as part of the 100 Day Engine Program. He also holds several powertrain patents, some of which are in production today.



Bryan Crutchfield

Bryan Crutchfield joined Materialise as Managing Director in September 2011. Based in Plymouth, Michigan, Crutchfield leads the North American operating unit and focuses on overall strategy for business development and client relationships at the senior-most

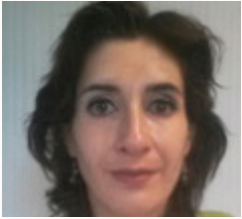
levels of the company's customer base. He also serves as President of RapidFit, Inc., which is part of the Materialise Group and offers a 3D-printed fixture solution. Crutchfield brings experience as an executive leader in automotive, manufacturing, and software industries. His results-focused leadership style has made him successful in strategic planning, P&L management, profitability/productivity improvement, and cost-control programs. Prior to joining Materialise, Crutchfield held several senior executive positions including: General Manager Engineered Fasteners & Components-NAFTA at TRW, Vice President of Sales/Marketing at Android Industries, and Director of Sales at ThyssenKrupp Budd. He holds a Master's of Business Administration degree from Lawrence Technological University and a BA degree in Finance from Western Michigan University's Haworth College of Business.

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Michael Day

Michael Day is Technical Consultant for the American Chemistry Council – Plastics Division with responsibility as Project Manager for the research program on Reversible Bonded Joint Technology. Day has 30 years' experience in engineering plastics and high-performance polymer materials. Retired from DuPont Performance Polymers in 2013, he held positions in manufacturing, technical service, research and development, sales and marketing, and product management. He has extensive experience in innovation and development of new automotive applications. Day holds a degree in Chemical Engineering, has authored technical papers, and has 2 patents.



Cécile Demain

Cécile Demain began her career in 2005 as an Engineer in structural calculation service at Groupe Renault where she worked on passive safety for the *Kangoo 2* compact van. In 2006, she joined Solvay Engineering Plastics as an expert in crash simulation in the company's R&D simulation and validation laboratory. There Demain worked on advanced simulation methods using micromechanics or multi-scale modeling and supported application development projects involving lightweight designs with thermoplastic composites. Since 2014, she has worked as an Application Development Engineer for Solvay Research & Innovation where her focus has been on bio-based materials.



Antony Dodworth

Antony Dodworth is currently Chief Technology & Manufacturing Officer for Bright Lite Structures. Previously he was Managing Director of Dodworth Design from 2011 to 2015. From 2003 until 2011, Dodworth was Principal Research Manager at Bentley Motors Ltd. where he led a small team investigating the adoption of composite materials. The team's efforts led to at least 16 patent applications, a large capital investment, expansion of the team, and the work being translated through other members of the Volkswagen Group, which owns Bentley. Before joining Bentley, Dodworth spend 1.5 years at Futura Design as a Studio Engineer, where he worked on mechanisms for door and vent openings, as well as the composite chassis for the *Cadillac Cien* show car for then General Motors Corp. During his time at Futura, he also worked on the chassis for a *Jaguar F type* show car for Ford Motor Co., and carried out feasibility work on the interior, main chassis components, and novel multilink powered front and rear door hinges for a show car being developed by Nissan Motors. For most of 2001, Dodworth was Senior Engineer-Style Feasibility for Rolls Royce and Bentley Motors Cars where he liaised between designers and engineers and supervised a small team of studio engineers working on vehicle concept designs – from clay models

through production to intent. In this role, he was also responsible for producing design proposals and patents for unique features such as a retractable hardtop, composite chassis assemblies, and door hinging systems. From 1996-2000, Dodworth worked in Germany for Hyundai Motor Europe as a Studio Engineer, where he was responsible for all aspects of studio projects, including packaging and feasibility. In this position, he primarily worked on show cars, and designed composite chassis and suspension components, as well as any additional mechanisms required to make parts function better. From 1994-1996, Dodworth was Chief Designer for International Automotive Design España S.A. (now IDD) where he led the engineering team in design and development of the *MCC / Iberdroca* electric light van from blank sheet through to prototype testing and homologation. Another project he oversaw was the body-in-white for a new SEAT Motors Sport Rally kit car with a newly designed front suspension assembly. Additionally, Dodworth has held positions at Ford Motor Sport, McLaren Cars, Ltd., Fondmetal Formula 1, Composite Technics Ltd., Leyton House Racing Ltd., March Engineering Ltd., Ralt Racing Cars, Peter Brotherhood Precision Engineering Co., and Schmidt Manufacturing & Equipment (UK) Ltd. He holds an Ordinary National Diploma in Mechanical and Production Engineering and a Higher National Certificate in Mechanical Engineering.



Louis Dorworth

Louis C. Dorworth has been involved with the advanced composites industry since 1978. He has been employed by Abaris Training since 1989, where he currently serves as the Manager of the Direct Services Division. He is a composite material and process specialist, with experience in R&D, M&P, and manufacturing engineering, tool design, and tool fabrication. Dorworth has been a professional member of the Society for the Advancement of Material & Process Engineering (SAMPE) since 1982, and a senior member of the Society of Manufacturing Engineers (SME) since 1997, where he is currently the chair of the Plastics, Composites, and Coatings Community (PCC). He also is a well-published author and conference presenter and is a co-author of the popular textbook titled Essentials of Advanced Composite Fabrication & Repair, published by Aviation Supplies & Academics, Inc. (ASA).



Markus Downey

****2014-2015 ACCE
scholarship winner****

Markus Downey received his B.A. in German and his B.S. in Chemical Engineering from the University of Rhode Island in 2002, as part of the International Engineering Program (5-year dual-degree program). After completing his undergraduate education, Downey stayed at the university working on fatigue life improvement of thermal spray instrumentation and thermal barrier coatings as part of his M.S. degree in Chemical Engineering. Next, he spend 8 years working in the exhaust gas after-treatment industry, spending the first 2 years

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in Germany with Emitec GmbH as a Research Engineer. Coming to Michigan to work as a Technical Applications Engineer for Emitec Inc., Downey successfully expanded the large-engine and locomotive business of the company. He returned to school and is currently a 4th-year Ph.D. student in Chemical Engineering at Michigan State University. As part of the Composite Materials and Structures Center, he is focusing on the toughening of fiber-reinforced polymer composites and polymer nanocomposites for high-performance applications. Downey has published several papers in conference proceedings and has given presentations at technical conferences in the United States and China. He is also a U.S. patent holder.



Dr. Larry Drzal

Lawrence T. Drzal is a University Distinguished Professor of Chemical Engineering and Materials Science as well as Director, Composite Materials and Structures Center at Michigan State University (MSU). He received his Ph.D.

at Case Western Reserve University and joined MSU in 1985 after serving as a military and civilian researcher at the U.S. Air Force Materials Laboratory at Wright-Patterson Air Force Base in Dayton, Ohio, where he was responsible for interfacial research in advanced composite materials and adhesively bonded systems. Since joining MSU, his research has been directed at understanding the fundamental physical and chemical interactions that take place between polymers and the surfaces of adherends, fibers, fillers, and nanoparticles in composite materials and adhesively bonded structures. Currently his research group is investigating multifunctional, inexpensive graphene nanoplatelets; nanostructuring of materials for enhanced energy generation and storage applications; and surface modification with UV light and air to control adhesion. During his career, Drzal has published over 350 peer-reviewed research papers, and has been awarded 31 patents. He has been identified by ISI as one of the most-cited materials researchers. He currently serves on the editorial board of 5 journals and on numerous government committees and has been elected a Fellow of 5 professional societies. In 2007, he co-founded XG Sciences, Inc., a Michigan-based graphene nanoplatelet company where he serves as Chief Scientist.



Cliff Eberle

Cliff Eberle leads the Materials and Processing Technology Area in the Institute for the Advanced Composites Manufacturing Innovation (IACMI). He also serves as the Technology Development Manager for the Oak Ridge National Laboratory (ORNL)

Carbon and Composites group. He is deeply engaged in developing new initiatives related to carbon and composite materials and manufacturing. He has served as the research leader for ORNL's Carbon Fiber Technology Facility, bio-carbon fiber program, and ultra-high performance carbon fiber development project. Eberle also is a significant contributor to strategic planning

and execution, intellectual property management, partnership development, program development, and technology transition related to innovative carbon and composites technology. He has 30 years of professional experience in various engineering, scientific, management, and program-development capacities including approximately 20 years of experience with fiber-reinforced composite materials. Eberle earned an M.S. degree in Mechanical Engineering from Oklahoma State University in 1984 and joined the staff at ORNL that same year.



Jan Olav Endrerud

Jan Olav Endrerud is the CEO of Dolphitech, a company developing equipment and software solutions for non-destructive testing. He holds a Master's degree in Mechanical Engineering (with a focus on NDT systems), as well as a Master's degree

in Business Administration. DolphiTech is a Norwegian company, making innovative NDT solutions for non-experts. Dolphitech was accepted by Boeing for NDT on the Boeing 787 Dreamliner in 2014, and selected as the NDT supplier for Lamborghini collision centers during the same year.



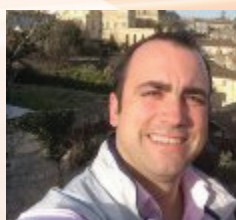
Erich Fries

Erich Fries is currently Head of the Composites Business Unit at KraussMaffei. He has been with the company since January 2003 and has held his current position since 2013. Prior to joining KraussMaffei, Fries worked for BASF/Elastogran from

2000-2002. He holds degrees in Environmental Engineering and in Business Administration.

Hannes Fuchs, Ph.D.

Not available at press time.



Brian Gardner

Brian Gardner holds a B.S. degree in Mechanical Engineering from West Virginia University and has been working in the automotive textiles and composites industry for over 13 years. Throughout his career he has worked in manufacturing management,

engineering, technical service, and sales serving a multitude of markets. He currently is Business Development Manager for Sigmatex, which develops and manufactures carbon reinforcement materials for a wide array of end markets, including automotive, recreation, industrial, infrastructure, military, and aerospace.

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Umesh Gandhi

Dr. Umesh Gandhi works as Senior Principal Scientist at the Toyota Research Institute in Ann Arbor, Michigan, USA. His current interest is sustainable future mobility through lightweight energy-efficient vehicles. Gandhi is actively pursuing research in lightweight areas such as composite material as well as polymer-based morphing technology and 3D printing. He holds a Ph.D. degree in Mechanical Engineering from the University of Michigan and has more than 25 years' experience in various areas of the automotive industry. Additionally, he holds 18 patents with another 15 pending. He has published several journal papers and presented at numerous conferences. Gandhi also sits on advisory boards for research centers at many U.S. universities.

Markus Geier

Dipl.-Ing. (TH) Markus Geier holds a degree in Mechanical Engineering from the University of Karlsruhe. In 2000 he joined the Schuler Group working for the Hydraulic Press business unit. He changed to project management in 2002 after spending 2 years in Sales at Schuler SMG. As a Project Manager, Geier was in charge of implementing hydraulic press lines for the automotive industry in Europe, the U.S., and Asia. Since 2010, he has worked as a Sales Manager at Schuler Pressen GmbH in the Hydraulic Press Line Division for composites.



Shokoofeh Ghasemi

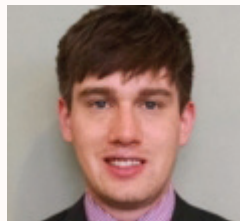
Shokoofeh Ghasemi received a B.S. degree in Textile Engineering (Textile Technology) in 2011 and an M.S. degree in 2013 from Amirkabir University of Technology (Tehran Polytechnic). She has conducted several research projects on high-tech textiles and is particularly experienced with mechanical properties of nonwoven materials and hybrid braided structures. She has also worked on textile-based composite structures and the influence of nanofibers on polymer structures. Ghasemi is currently working on a Ph.D. at the University of Maine with a focus on renewable nanomaterials and their composites.



Jon Goering

Jonathan Goering has been with Albany Engineered Composites (AEC) since 1998 and currently holds the position of Divisional Chief Technology Officer. In this role, he is responsible for defining the technical direction of the Division's Research and Technology group and provides input on strategic initiatives for the company. He has been instrumental in the development of technologies that led to the

production of advanced composite components, including 3D woven, resin transfer molded fan blades and fan cases for commercial jet engines, as well as 3D woven preforms for composite landing gear braces. Goering holds B.S. and M.S. degrees in Mechanical Engineering from Kansas State University. He has been active in the field of advanced composite structures for over 30 years, and held positions with The Boeing Company (formerly McDonnell Douglas Aerospace), Materials Sciences Corporation, and The Trane Company prior to Joining AEC. His areas of expertise include the design of fiber preforms and composite components, computational mechanics, and advanced textile manufacturing processes.



Sebastian Goris

****2014-2015 ACCE scholarship winner****

Originally from Germany, Sebastian Goris is working on his doctorate degree in Mechanical Engineering at the University of Wisconsin-Madison. He previously earned a B.S. degree from the Department of Mechanical Engineering at RWTH Aachen University in Germany. While completing his undergraduate degree, he focused on polymer processing and worked as an undergraduate research assistant at the Institute of Plastics Processing (IKV) at Aachen University. He currently works as a graduate research assistant at the Polymer Engineering Center under Prof. Osswald. Goris' research focus mainly lies in the field of composites including modeling and simulation of composite processing, measuring fiber properties, and analyzing the microstructure of fiber-reinforced plastic parts.



Stephen Greydanus

Stephen Greydanus is a Senior Application Development Engineer for HEXION Inc. He is an Industrial Designer with extensive experience in the design and manufacture of lightweight composite structures and interior components. In his current role, he oversees HEXION's development activities at the Fraunhofer Project Centre for Composites Research in London, Ontario, Canada. Greydanus joined the company in 2013 after 18 years working in a variety of roles including R&D Leader for composites and engineering for interiors at European-based aircraft manufacturer, Diamond Aircraft Industries. He has managed activities ranging from design and development to tooling and assembly systems for several all-composite production aircraft with particular focus on out-of-autoclave composite processing.

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Mike Gruskiewicz

Mike Gruskiewicz serves as Vice-President of Technology, U.S. Region, for the Engineered Composites business unit of A. Schulman, Inc. In his 38 years of experience in the composites industry, Gruskiewicz has held numerous technical positions at Premix,

The Composites Group, Citadel Engineered Composites, and now A. Schulman. He is a 1977 graduate of The Ohio State University, and earned his MBA from the Weatherhead School at Case Western Reserve University in 1994. Gruskiewicz has contributed to numerous key development activities that have helped shape the markets for SMC, TMC, and BMC. His contributions include thin-skin body panels and low-density developments in the early years of SMC, as well as of unique low-profile solutions and advances in SMC thickening control. Additional contributions include composites with advanced flame/smoke properties, high temperature performance, and thermally conductive composites.



Glade Gunther

Glade Gunther is responsible for automotive market sector business development in North America for Cytec Industrial Materials. A 20 year veteran in the composites industry, he has been involved in nearly all aspects of high-performance composites including

manufacturing, engineering, process improvement, sales, and business development roles. He has spent the last 7 years working directly with automotive OEM and tier suppliers to advance the use of composite materials in mainstream automotive applications.



Mahmoodul Haq

Dr. Mahmoodul Haq is an Assistant Professor in the Department of Civil and Environmental Engineering at Michigan State University, and leads the group on Structural Joining and Tailorable Materials at the university's Composite Vehicle Research Center (CVRC). He received his Ph.D. (2009) and M.S. (2005) degrees in Civil Engineering (CE) from Michigan State University, and his B.E. (2002) degree (CE) from University of Madras, India. His research interests include the study of multi-material joining, cost-effective and tailorable materials, multi-scale reinforced hybrid composites, and computational simulation of materials and structures.



Sigrid ter Heide

Sigrid ter Heide is Transportation Market Development Manager for the Epoxy, Phenolic and Coating Resins division at Hexion. She joined the company in 2007 and worked in global marketing roles with a focus on the coatings, rail, and automotive composites industry. She

earned a Master's degree in Chemical Engineering Science in 1992 at Twente University in the Netherlands.



David Jack

Dr. David Jack is an Associate Professor in Mechanical Engineering at Baylor University. His expertise ranges from constitutive modeling to experimental validation of composite systems. His work has yielded methods to correlate the microstructure with the

macroscopic material response, as well as non-destructive methods for quantifying the internal microstructure. Jack's work also has generated novel physics-based models impacting industries from aerospace to automotive. He has been supported by NSF, NASA, AFOSR, Sandia National Laboratory, Hess Inc., L-3 Communications, Oak Ridge National Laboratory, and multiple industrial partners.



Tobias Jansen

Tobias Jansen is currently Sales Manager for CSM applications and new technologies, especially HP-RTM Technology at the Hennecke Headquarters in Sankt Augustin, Germany. He graduated with a Bachelor's degree in Business Administration at the FOM, University

of Applied Sciences in Cologne, Germany in 2011 and has been with Hennecke for 4 years. Jansen has a total of 10 years of technical capital equipment sales and after-sales experience.



William Jordan

William Jordan is Chair of the Mechanical Engineering Department at Baylor University. He holds B.S. and M.S. degrees in Metallurgical Engineering from the Colorado School of Mines, an M.A. degree in Theology from Denver Seminary, and a Ph.D.

degree in Mechanics and Materials from Texas A & M University. He teaches materials-related courses. His current research focuses is on the mechanical behavior of natural fiber-reinforced polymeric composites.



Henning Karbstein

Henning Karbstein is Manager for New Business Development and Idea Management at BASF's dispersions and pigments business in Charlotte, North Carolina. In the market segments of construction and fiber bonding, architectural and paper coatings and

formulation additives, he is responsible for innovative business models with new or existing products and processes. The fiber bonding business includes BASF's low-VOC thermoset and thermoplastic acrylic binders for natural and synthetic non-woven

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materials, which are used in automotive, industrial, and residential applications. Since Karbstein joined BASF in 2012, he has introduced a prototyping pilot composite line for lightweight fiber composites at BASF's facility in Wyandotte, Michigan. He also is involved in various cross-business unit focus teams for automotive materials, markets and customers. Before joining BASF, Karbstein held various positions in product development, process, and program management at the Schaeffler Group. He was responsible for new product launches with engine components for Porsche and General Motors in Germany, the U.S., and China. He has been named inventor on more than 15 patents for valve-train technology and hydraulic control systems for automotive combustion engines. He also was responsible for lean production and business processes at all sites in North America. Karbstein holds a degree in Mechanical Engineering from the Karlsruhe Institute of Technology in Germany.



Michael Karcher

Michael Karcher has been Head of the technology corridor "Thermoset" at the Fraunhofer Institute for Chemical Technology (ICT) since April 2015. Between January and April of 2015, he was an Academic Scientist at ICT with a

focus on high-pressure RTM and the InlinePrepreg process. Between 2011 and 2014, he was an Academic Scientist and Chair of the Lightweight Technology at the KIT under Prof. Henning with a main focus on high-pressure RTM and the InlinePrepreg process. Between 2004 and 2010, Karcher studied Mechanical Engineering at the Karlsruhe Institute of Technology KIT and in 2010 he completed his diploma thesis at Daimler AG in Sindelfingen on the topic of gluing in exterior areas of a car.



Márton Kardos

****2015-2016 ACCE scholarship winner****

Márton Kardos earned his Bachelor of Science degree at the Budapest University of Technology and Economics (Budapest, Hungary) in Mechanical Engineering with

a specialization in Polymer Technology, and wrote his bachelor's thesis on the topic of "Development of Self-healing Composite Structures Reinforced with Hollow Glass Fibers." He then moved to Germany to pursue a composites-oriented path of study and is currently finishing his Master's degree at the University of Applied Sciences of in Composite Materials. While working on his Master's thesis, Kardos gained valuable experience in the field of thermoplastic composites by working in the Materials and Processes department at Volkswagen Group Research on the topic of "Material Characterization and Draping Simulation of Thermoplastic Prepregs," as well as co-authoring an identically titled paper that he will co-present at the 2015 SPE ACCE. Kardos also is a 2015-2016 SPE ACCE Graduate Scholarship Award winner.



Doug Kenik

Doug Kenik is a product line manager for composite simulation products within Autodesk, Inc. He holds both M.S. and B.S. degrees in Mechanical Engineering from the University of Wyoming, where he spent his graduate career developing high-fidelity micromechanics models for composite material simulation. Prior to working at Autodesk, Kenik spent 5 years as a developer and application engineer at Firehole Composites, where he helped implement new technologies for composite simulation and define next-generation enhancements for use within existing products.



Lolei Khoun

Lolei Khoun completed her Ph.D. degree in Mechanical Engineering at McGill University, Montréal, Canada in 2009. She is now working as Research Officer at the National Research Council Canada's Automotive and Surface Transportation Portfolio, in the Advanced Polymer Composites group. Her work focuses on the manufacturing and performance of advanced composite materials.



Thomas Köhler

Thomas Köhler did his diploma in Industrial Engineering and Management at RWTH Aachen University in Aachen, Germany. He specialised in manufacturing engineering and innovation management. Since July 2014, he has been employed at the Institute for Textile Technology of the RWTH Aachen University in the Research Group "Thermoplastic Composites (FRTC) and Yarn Structures." During his Ph.D. studies, he work is working on quality control and improving production efficiency of processing FRTCs.



Rainer Kossak, Ph.D.

Dr. Rainer Kossak has been Director-Technical Development Services at Novelis Inc. in Novi, Michigan, USA since 2014. Before that, for 2 years he was Manager-Automotive Products & Process Development North America at the company's plant in Oswego, New York. From 2001 to 2012, Kossak was Manager Development Automotive for the Alusuisse / Alcan / Novelis plant in Sierre, Switzerland. From 1996-2001, he was Project Manager Automotive Development at Alcan's Nachterstedt plant/works and from 1994-1996, he was Manager-Technical Development at the same facility. Kossak began his career at the Alcan Göttingen plant/works as Manager-Customer Technical Service. He was born in Wolfsburg, Germany and received his Ph.D. degree in Physics from the Georg-August Universität Göttingen.

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Paul Krajewski

Dr. Paul Krajewski is currently Global Manager & Technical Fellow - Vehicle Mass Integration & Strategy at General Motors Co. where he leads teams developing GM's lightweighting strategy & mass reduction technology plan for future vehicles. Krajewski has experience

with a variety of lightweight materials including aluminum, magnesium, and carbon composites. He is considered a global expert in lightweight materials and automotive lightweighting. He has previously appeared on the History Channel's Modern Marvels Aluminum program as a subject matter expert. He also has been recognized by both *Fortune* magazine & MIT's *Technology Review* as a leading innovator. He has over 75 publications & 38 U.S. patents and was named a Fellow in ASM International in 2008. He also was the first recipient of the Briacombe Medal in 2012 and also has been awarded the Mathewson Medal (2013) – both from the Minerals, Metals and Materials Society (TMS). Krajewski holds B.S., M.S., & Ph.D. degrees in Materials Science from University of Michigan.



Kumar Kunal

Dr. Kumar Kunal is a Researcher at Evonik Corp. based in Richmond, Virginia. In his current role, he is responsible for technical service for plastics and composites market segments in the Americas. He holds a Ph.D. in Polymer Science and a Certificate

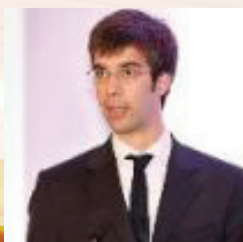
in Management from the University of Akron, Akron, Ohio and a Bachelor's of Technology degree from Indian Institute of Technology, Delhi, India. When not at work, Kunal enjoys traveling, reading, and trying different cuisines.



Vlastimil Kunc

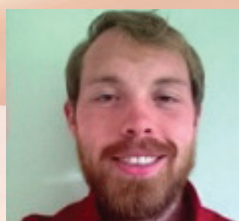
Dr. Vlastimil Kunc joined Oak Ridge National Laboratory in 2002. His research is centered on microstructure and properties of discontinuous fiber composites produced with rapid flow molded processes (such as injection molding) as well as highly controlled

processes (such as extrusion deposition). In addition to development in fiber reinforced materials for extrusion deposition, his work experience includes the development of numerical methods for prediction of material response, structural modeling, experimental measurement of material, and structural response under various loads and environmental conditions.



Martino Lamacchia

Martino Lamacchia was born in Milano, Italy in 1987 and holds an M.Sc. degree in Mechanical Engineering. He joined Cannon in 2011 and is now working in Cannon's Afros Division as Product Manager – Dosing Systems for composites. He follows automotive and wind power applications.



Gregory Lambert

Gregory Lambert earned his Bachelor's degree in Chemical Engineering at Virginia Tech. After graduating, he worked for a short time at a small bio-tech startup called Virdia on scaling up a process that converts lignocellulosic biomass to sugar through chemical means. He is currently back at Virginia Tech pursuing a doctorate in Chemical Engineering under the advisement of Dr. Don Baird. His research focuses on investigating the use of rheological techniques to understand the orientation dynamics of fibers during the processing of fiber-thermoplastic composites.



Amy Langhorst

****2015 Dr. Jackie Rehkopf Best Paper Award winner****

Amy Langhorst is a research engineer at Ford Motor Co. in the Plastics Research group. She previously worked with Ford's Fuel Cell group on the development of novel materials for enhanced hydrogen

storage and she worked on the launch of the 2015 *Ford Edge* at the Oakville Assembly Plant in Ontario. Langhorst graduated from the University of Michigan-Ann Arbor with a Bachelor's degree in Materials Science and Engineering in 2013.



Ellen Lee

Ellen Lee, Ph.D., is the Additive Manufacturing Research Team Leader responsible for development and implementation of novel materials, processes, and applications of 3D printing for the automotive sector. Lee has a vast knowledge of automotive

materials and durability requirements from her previous roles. Most recently, she was responsible for leading a team of researchers in developing sustainable materials and tools ranging from natural fiber composites to renewable sourced foams. She holds several patents on bio-based materials and nanocomposite technologies. In 2012, she was bestowed the Society of Women Engineers Emerging Leader Award for her contributions in sustainable materials development. Lee received her Bachelor's of Science degree in Chemical Engineering from Northwestern University and a Doctorate degree in Chemical Engineering from the University of California at Berkeley.

Speaker Biographies 2015



Mike Lee

Mike Lee is currently a Senior Consultant for AlphaStar Corp. He holds a Ph.D. degree in Mechanical Engineering / Material Science and Engineering and an M.S. degree in Chemical Engineering / Material Science both from University of California at Berkeley, and a B.S. degree in

Chemical Engineering from National Taiwan Cheng Kung University. He also holds an M.B.A. degree from Walsh College. Over the years he has worked for General Motors (GM) R&D, Delphi Research Labs, GM PDC, Aerotek/EASi Engineering, and AlphaStar. Lee's expertise and interests include CAE simulation and optimization using material composition-processing-structure-property relationships, crash worthiness, and progressive failure analysis/durability of automotive/aerospace/military composite materials.



Hendrik Mainka

Hendrik Mainka has worked as a Project Engineer for Volkswagen since 2011. He holds a Ph.D. degree from the Manufacturing Engineering Department of University of Bremen in Germany. Mainka also earned a Bachelor's degree in Chemical Engineering from the Otto-von-

Guericke University in Magdeburg, Germany in 2008 and a Master's degree in Molecular and Structural Product Design from the same school in 2010. He was a Research Assistant at Otto-von-Guericke University from 2010 to 2011. The focus of his current research is on alternative precursors for sustainable and cost-effective carbon fiber production for the automotive industry. In his position as Engineering Specialist for product innovation at Volkswagen Group of America, Mainka is responsible for Volkswagen projects in the IACMI consortium.



Jan-Anders Månson

Professor Jan-Anders E. Månson received his Ph.D. from Chalmers University of Technology, Gothenburg, Sweden. After several years' industrial experience as Chief Technology Officer, he was appointed Professor of Composite Materials at University of

Washington, in Seattle, Washington, U.S.A. In 1990, Månson joined Ecole Polytechnique Fédérale de Lausanne (EPFL) as Professor and Director of the Polymer and Composite Laboratory (LTC). His research is focused on novel cost-effective materials, processes, and applications with additional functionality, pushing the performance envelope beyond that of classical composite materials. Emphasis is on scaling and implementation strategies for an industrial context in the automotive, aerospace, and sport domains. He has led several supply-chain consortium projects in the automotive field. Månson also is Founder of the composite company, EELCEE SA, active in the field of high-volume composites and is President of the International Sport Academy (AISTS), an organization linking academic institutions in collaboration with the International Olympic Committee (IOC).



Deborah Mielewski

Dr. Deborah Mielewski is the Senior Technical Leader of Sustainable Materials and Plastics Research at Ford Motor Co. She received her B.S.E. ('86), M.S.E. ('93), and Ph.D. ('98) degrees in Chemical Engineering from the University of Michigan in Ann Arbor, and has been

with Ford Motor Company for 28 years. Mielewski has worked at Ford Research in automotive paints, polymer processing, and materials development. She is passionate about the work she does to reduce Ford's environmental footprint and believes that these new materials are going to dominate the market in the future. She has appeared in a Ford national commercial, the NOVA "Making Things" series and has been interviewed by countless media outlets. Mielewski has over 40 referred journal publications and 10 U.S. patents. Her work has been acknowledged with awards such as the Henry Ford Technology Award, the R&D100 award, the Free Press Automotive Leadership Award, and the American Chemical Society's Industrial Innovation Award.



Dhanendra Kumar Nagwanshi

Mr. Dhanendra Nagwanshi joined SABIC's Innovative Plastics business in 2005. Since then, he has accumulated significant expertise on the use of plastics in automotive chassis and safety systems. He has worked closely with many automakers around the

world, enabling them to optimize design solutions in this area. Two programs have been honored at the Society of Plastics Engineers' Automotive Innovation Awards, including the 2013 Chassis/Hardware category winner (a global front bumper energy absorber). He holds 20 U.S. patents covering a variety of unique design solutions. He has also published close to a dozen technical papers, which have been presented at reputable industry conferences. Today, Nagwanshi serves as the Global Marketing Manager, Chassis and Safety, for SABIC's Innovative Plastics unit. He holds a Master's degree in Mechanical Engineering Design from the Indian Institute of Technology in Delhi, India.

James Nelson

Not available at press time.



Kim Nelson

Dr. Kim Nelson is the Vice President of Nanocellulose Technology at American Process Inc. (API), headquartered in Atlanta, Georgia. She is the creator of API's low-cost, versatile nanocellulose production process and is

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responsible for nanocellulose technology development and R&D, demonstration-line installation, commercialization, and partnerships. Her previous roles at the company include R&D management, Government Affairs, and Environmental Quality and grant writing. She was formerly a Pulp Mill Process Engineer with MeadWestvaco in Charleston, South Carolina. Nelson holds a Ph.D. degree in Chemical Engineering at Georgia Tech, a Master's of Science degree from the Institute of Paper Science and Technology at Georgia Tech, and a double Bachelor's degree in Math and Chemistry from Agnes Scott College.



James Orrock

James (Jim) Orrock holds a B.S. degree in Aerospace Engineering and an M.S. degree in Mechanics, both from the University of Minnesota. He has held R&D leadership positions within original equipment manufacturers for over 30 years. For the past 8 years Orrock has

worked in the additive manufacturing industry, including printed electronics and 3D printing of thermoplastics. He joined Stratasys in 2008 and is currently Vice-President - Materials Development, where he leads development of innovative new materials for the company's fused deposition modeling systems.



Christopher Pastore

****2015 Dr. Jackie Rehkopf Best Paper Award winner****

Dr. Christopher "Chris" Pastore is Professor of Transdisciplinary Studies in the Kanbar College of Design, Engineering and Commerce at Philadelphia University. He holds a Ph.D.

in Materials Engineering from Drexel University, an M.S. degree in Mathematics from Drexel, and a B.A. degree in Mathematics from LaSalle University. His book Sustainable Composites was published this year, adding to a list of many publications in the field of composites, sustainability, and textiles.



Dr. Byron Pipes

R. Byron Pipes, NAE, IVA, is a member of the National Academy of Engineering (1987) and the Royal Society of Engineering Sciences of Sweden (1995). He serves as Director - Modeling and Simulation Technology Area for the Advanced Composites Manufacturing

Innovation (IACMI). Pipes was appointed John L. Bray Distinguished Professor of Engineering at Purdue University in 2004. He served as Goodyear Endowed Professor of Polymer Engineering at the University of Akron during 2001-2004 and was Distinguished Visiting Scholar at the College of William and Mary during 1999-2001, where he pursued research at the NASA Langley Research Center in the field of carbon nanotechnology. He served as President of Rensselaer Polytechnic Institute from 1993-1998 and was Provost

and Vice President for Academic Affairs at the University of Delaware from 1991-1993. He served as Dean of the College of Engineering and Director of the Center for Composite Materials between 1977 and 1991 at the same institution. He was appointed Robert L. Spencer Professor of Engineering in 1986 in recognition of his outstanding scholarship in the field of polymer composite materials ranging over the subject areas of advanced manufacturing science, durability, design, and characterization. He is the author of over 100 archival publications including 4 books and has served on the editorial boards of 4 journals in his field. Pipes has been recognized for his leadership in creating partnerships for university research with the private sector, government, and academia. He served as one of the first 6 directors of National Engineering Research Centers of the National Science Foundation. Pipes received his Ph.D. degree in Mechanical Engineering from the University of Texas at Arlington and an M.S.E. degree from Princeton University. He is the recipient of the Gustus L. Larson Award of Pi Tau Sigma and the Chaire Francqui, Distinguished Faculty Scholar Award in Belgium. He holds Fellow rank in ASC, ASME, and SAMPE. Pipes has served on a number of National Research Council panels as both member and chair and served 2 terms on the National Materials Advisory Board. He is a registered professional engineer in the State of Delaware.



Brian Rice

Brian P. Rice is the Director - Compressed Gas Storage and Intermediate Manufacturing Technology Area for the Advanced Composites Manufacturing Innovation (IACMI). He also is University of Dayton Research Institute (UDRI) Division Head, Multi-Scale Composites

and Polymers (MCP) where he leads a division comprised of 6 groups and over 50 employees conducting research in advanced polymers, carbon materials, nano-enhanced composites, advanced composites materials, analytics, additive manufacturing, and composites manufacturing and technology transition. The group has an annual sponsored research budget of \$6-10-million USD. Additionally, Rice is Program Manager for a \$44.5-million USD AFRL contract developing next generation technologies for advanced composites. He has managed well over \$100-million USD in composites-related contracts the past 10 years. Rice has nearly 30 years' experience conducting and managing research in advanced composites. His core research focus involves pushing the technology envelope to develop revolutionary new multifunctional polymer-based materials using a variety of commercially available nanoparticles. He joined UDRI in 1986 as a Research Engineer in composites, working on-site at the Materials and Manufacturing Directorate at the Air Force Research Laboratory at Wright-Patterson Air Force Base near Dayton, Ohio. He later served as the Group Leader for the composites group, managing over \$20-million USD in related research before forming a new group to commercialize polymer nanocomposites. Rice holds an M.S. degree in Materials Engineering from University of Dayton and a B.S. degree in Chemical Engineering from The Ohio State University.

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Don Robbins

Don Robbins is currently a Distinguished Research Engineer with Autodesk, Inc. He holds a Ph.D. from Virginia Tech, and his research interests focus on the development of multiscale and adaptive finite-element methods for simulating progressive damage in composite structures. Prior to his current position at Autodesk, Robbins served for 6 years as the Chief Engineer for Firehole Composites, 6 years as an Assistant Professor in the Mechanical Engineering Dept. at the University of Maryland, and 6 years as a Senior Engineer for Michelin Tire Corp.



Steffen Ropers

Steffen Ropers studied Mechanical Engineering with majors in Polymer and Manufacturing Technology at the University Erlangen-Nuremberg, Germany. His master's thesis topic resulted from a semester abroad studying at the Polymer Engineering Center of the University of Wisconsin-Madison. Following his studies, Ropers began work as a Ph.D. candidate in the Materials and Processes Department of Volkswagen AG Group Research in Wolfsburg. The current focus of Roper's work is material characterization and process simulation of fiber reinforced polymers.



Philipp Rosenberg

Philipp Rosenberg has worked as a Research employee at the Fraunhofer Institute for Chemical Technology (ICT) in Germany since January of 2014. He holds a Diploma degree in Mechanical Engineering from Karlsruhe Institute of Technology (KIT) in Germany. Currently he is working on his Ph.D. degree with the research topic of "High-Pressure RTM Technology Development," which is supervised by Prof. Frank Henning. Previously, Rosenberg worked as a Research employee at the Institute for Vehicle System Technology (FAST), Karlsruhe Institute of Technology (KIT), Germany starting in June of 2012. And before starting his doctoral work, Rosenberg worked on his Diploma thesis at BMW AG in Germany characterizing textile preforms.



Andrew Rypkema

Andrew Rypkema has been immersed in composites for nearly 20 years, starting with experiences with homebuilt aircraft in his teen years, and progressing on to various hands-on roles in industrial, general aviation, and commercial aircraft composites R&D. Most recently he completed an 8+ year assignment working as a Composites Manufacturing Process Research and Development Engineer on the Boeing 787. Currently he is working as the Business Development Manager covering North

America for PEI – Pinette, a 150+ year old company specializing in automotive and aerospace composites processing equipment. During his personal time, Rypkema enjoys flying general aviation aircraft and traveling with his experimental airplane, a *Vans RV-8*.



Anthony Schiavo

Anthony Schiavo is a Research Associate based in Lux Research's Boston office. He is a member of the Advanced Materials team where he conducts research on technical and market trends in areas such as advanced ceramics, metamaterials, composites, and coatings. Prior to joining Lux Research, Schiavo received a B.S. degree in Materials Science and Engineering from Virginia Tech. While at Virginia Tech, he researched biomaterial composite, nanoparticle technology, and ethics.



Ryan Schuelke

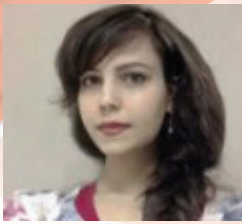
As Vice President of Sales for Enercon Industries, Ryan Schuelke leads the company's efforts in developing new and innovative surface-treating solutions for clients around the world. Enercon offers the industry both atmospheric plasma and flame surface-treating technologies that clean, etch and functionalize surfaces to improve adhesion. Schuelke's ability to align his customer's business objectives with technology solutions makes him a valuable industry resource. A native of Milwaukee, Wisconsin, he earned his B.S. degree in Computer Sciences from the University of Wisconsin and his M.B.A. from the University of Wisconsin – Milwaukee. Schuelke is a member of numerous associations and is a frequent presenter at industry events.



Mark Shaw

Mark Shaw started his first company when he was 23 years old with the goal of saving the world from toxic waste. He became a pioneer in the spill-containment market. Over the past 30 years, Shaw has expanded that dream to cover nuclear waste, oil spills, spill-response products, stormwater-management products, and more recently advanced technologies – many of which utilize nanotechnology. He has developed over 500 products, holds more than 60 patents, and has distributors covering more than 80 countries. He gave a TED® talk on nanotechnology in 2013 and has been focusing more of his efforts on this fascinating technology.

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Niloofar Yousefi Shivyari

Niloofar Yousefi Shivyari holds a Bachelor's degree in Polymer Engineering from the University of Tehran (2014). She is currently studying for a Master's degree in Forest Resources at the University of Maine with a focus on renewable nanomaterials. Her undergraduate

research was on RTM processing of polyester / fiberglass composites for automotive applications. Currently, she is working on paper / cellulose nanofibril biodegradable nano-laminates with potential applications in automotive industry.

working on her Ph.D. in Mechanical Engineering at Baylor. Stair was a 2013-2014 SPE ACCE Graduate Scholarship Award winner, and in 2014 she was awarded a National Science Foundation Graduate Research Fellowship for her work on non-destructive testing of carbon fiber-reinforced laminated composites. In the summers of 2014 and 2015 she was a Graduate Research Intern at Sandia National Laboratories in Albuquerque, New Mexico.



Stefan Stanglmaier

Stefan Stanglmaier is currently CFRP Development Engineer at the BMW Group, a position he has held since 2013. Additionally he currently is a doctoral student at the Fraunhofer Institute for Chemical Technology. Stanglmaier earned a Master's of Science degree in

Mechanical Engineering and Management in 2013 at the Technical University of Munich. During those studies, he completed his Master's thesis at BMW Group on the topic of "CFRP Development - Analysis of Carbon Fibre Textiles". Between 2006 and 2010, Stanglmaier studied Engineering Sciences at the PLU Salzburg (Austria) and the Technical University of Munich. He earned a Bachelor's of Science degree from the latter in 2013. His Bachelor's thesis topic on the topic of "Renewable Energies - Liquidation of Biogas" was done at Salzburg AG. When not working, Stanglmaier enjoys playing soccer, reading, and technology.



Yuyang Song

Dr. Yuyang Song graduated from Wayne State University with a Ph.D. degree focused on composite materials. After graduation in 2011 he joined Toyota Research Institute North America. Since then, his research has mainly focused on fiber-reinforced composites for automotive applications. His main research efforts include strength/stiffness prediction of fiber-reinforced composites, fiber-filling analysis, joining of composite materials, and nonlinear material properties analysis and characterization.



Dustin Souza

Dustin Souza is currently an Application Engineer at e-Xstream engineering/ MSC Software where he supports North American customers of the firm's Digimat software and other FEA products, as well as does modeling and simulation work to predict the behaviors of composite

materials. Before joining e-Xstream in 2013, Souza worked as an Associate Inside Sales Representative for MSC Software. Between 2012 and 2013, he was a Research Assistant in the Mechanical Engineering Department at Purdue University where he wrote a program that simulates short-fiber composite systems and worked under Professors Byron Pipes and Thomas Siegmund. The year previous he worked in Purdue's Aeronautics and Astronautics Engineering Department under Dr. Pipes helping develop a composites nanohub site encompassing all composites simulation programs. Souza also wrote manuals and papers on software for different aspects of composites manufacturing, testing, and analysis. And from 2011-2012, he worked as a Lab Inventory Assistant in Purdue's Pharmacy Department. He holds B.S. and M.S. degrees in Aeronautical Engineering from Purdue University.



Andy Stecher

Andreas ("Andy") F. Stecher is President & CEO of Plasmatreat North America, a position he has held for 5 years. He brings along an executive career with over 30 years of international business experience in C-Level functions. Key appointments have included global market-leading

manufacturing and distribution companies in both Germany and the United States. His core strength lies in finance, operations, administration, logistics, and human resources. He is very experienced in strategic planning, contract negotiations, as well as business development and turnarounds. Stecher holds dual citizenship in the U.S. and Germany. He grew up in Germany but has made the U.S. his home since 1985. He holds a B.S. degree from DePaul University in Chicago and an M.B.A. degree in International Management from Benedictine University, Lisle.



Sarah Stair

****2013-2014 ACCE scholarship winner****

Sarah Stair graduated *magna cum laude* with a Bachelor's degree in Mechanical Engineering from Baylor University in 2012 and her Master's degree in Mechanical Engineering in 2014. She is currently



Karen Stoeffler

Karen Stoeffler received her Ph.D. in Polymer Science and Engineering in 2008 from École Polytechnique de Montréal. She leads the Polymer Bioproducts team of the Automotive & Surface Transportation portfolio of National Research Council Canada (NRC). Her team

works toward the development of greener plastic and composite materials for automotive, construction, and packaging applications.

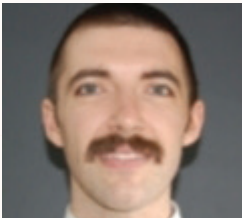
Speaker Biographies 2015



Michael Sumner

Dr. Michael J. Sumner is a Group Leader for SMC, Gelcoat, and Marine Resin in the Composite Polymers-Global Technology Organization of Ashland Performance Materials, a Division of Ashland Inc. Sumner received his Ph.D. degree from Virginia Tech in Organic

Polymer Synthesis in 2003 and he has worked for Ashland, Inc. since graduating. His work experience includes management of scientists and technicians and he has considerable experience in designing gelcoat and SMC. His is responsible for the development of Ashland's newest marine gelcoat technology. Sumner also was a significant contributor to the development of Ashland's mid-density Class A SMC technology.



Ian Swentek

Dr. Ian Swentek works at the Fraunhofer Project Centre as a Research Engineer specializing in high-pressure resin transfer molding and fiber preforming. In the short time he has been with Fraunhofer, he has written multiple papers and helped develop these technologies in

the North American market. He holds a Ph.D. degree in Mechanical and Materials Engineering from the University of Western Ontario where his dissertation was on the fracture mechanics of polymer composites. Swentek is currently serving on the board of the Society of Plastics Engineers (SPE)' Composites Division where he helps in the education and awards areas.



Mehdi Tajvidi

Mehdi Tajvidi is the Assistant Professor of Renewable Nanomaterials at the School of Forest Resources, Advanced Structures and Composites Center (ASCC) and Forest Bioproducts Research Institute (FBRI) of the University of Maine-Orono. Prior to joining the university's nanocellulose research group in 2013, Tajvidi worked

for 2 years as a Visiting Professor at the Department of Chemical Engineering at the University of Waterloo in Ontario, Canada. He also did research at the Department of Biomaterials Sciences at the University of Tokyo in Japan for 2 years, as well as worked as an Assistant and Associate Professor at the University of Tehran for 8 years. Tajvidi's areas of research interest include production, characterization, and performance evaluation of renewable nanomaterials and their composites. He is particularly interested in mechanical properties of nano-materials and nanocomposites, structure-property relationships, viscoelastic behavior, dynamic mechanical analysis, and magnetic cellulose nanocomposites. To date, Tajvidi has published over 75 papers in academic journals, presented over 20 presentations at international conferences, and advised or co-advised over 35 graduate students.



Markus Thiessen

Markus Thiessen studied Industrial Engineering at Karlsruhe Institute of Technology. He spent 6 years working for one of the leading management consulting companies, managing projects in Sales and Operations Management in aviation, automotive,

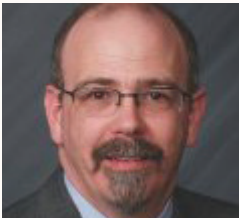
and machine building. Together with his partners, he co-founded Compositence in 2009 and is responsible for Sales and Marketing in the management team.



Max Thouin

Max Thouin is the Technical Sales Manager for the Composite Division of Mitsubishi Rayon Carbon Fiber and Composites (MRCFAC). He completed both his undergraduate and graduate degrees at McGill University in his native town of Montreal, Quebec, Canada. Following

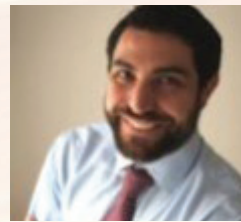
graduation he moved to San Diego, California, USA to become a Composite Design Engineer for True Temper Sports. In 2010 he took an assignment in Guangzhou, China where he spent 2 years doing manufacturing as a Senior Engineer and International Liaison. Upon returning to the US and in need of new challenges, he accepted a position with MRCFAC (formerly Newport) where he works closely with customers on new product development and advanced processing.



Peter Ulintz

Peter J. Ulintz, Technical Director of the Precision Metalforming Association (PMA), has worked in the metal stamping and tool and die industries since 1978. He worked for Anchor Manufacturing Group in Cleveland, Ohio, USA for 28 years. His background includes tool and die making,

tool engineering, process engineering, engineering management, and product development. Ulintz speaks regularly at PMA seminars and conferences. He also is Vice President of the North American Deep Drawing Research Group and is the Tooling by Design columnist for *MetalForming* magazine.



Burak Uzman

Burak Uzman is a subject matter expert on aircraft structures and advanced composite materials. He focuses on business cases where the financial outcomes are highly impacted by technology and technical requirements. Because of his unique ability to translate

technical matters into dollars and sense, he is often sought out by executives facing investment and due diligence projects. As a thought leader in composites and airframe structures, Uzman has presented several papers at industry conferences focusing on the profitability of automated production and cost metrics of composite structures; as well as engineering,

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tooling, equipment and manufacturing. He has been working with composite airframe structures since 1995. Prior to founding ALA Group, he worked in the unmanned air vehicles (UAVs) industry in a variety of operational roles ranging from business strategy, operations / project management, and engineering leadership. Besides his decade-long focus on UAVs, their design and fabrication, he also worked briefly in the space and robotics industries. Uzman was involved in the design and analysis of robotic hardware destined for the International Space Station and for nuclear-waste remediation. He has direct, hands-on experience with design, analysis, testing, tooling, and manufacturing of composite airframe structures. Uzman holds an MBA from Smith School of Business at University of Maryland and an M.S. degree in Engineering Mechanics from Virginia Tech.



Ingo Valentin

After serving an apprenticeship as a Machinist with tooling machine manufacturer Alfred Eriksen in Hamburg, Germany, Ingo Valentin completed military service and then studied Mechanical Engineering at Fachhochschule der Freien und Hansestadt Hamburg from which he graduated with a Dipl. Ing. degree. He began his professional career at Bosch-Rexroth in Ulm as Group Leader-Automotive Controls for 11 years. During this time he developed a line of hydraulic axial-piston push pump/motor units, swashplate-type (A4), which was a new type for this hydraulics manufacturer. He also worked on the development of hydraulic controls for industrial and automotive applications. Next, Valentin worked for Enerpac, a Division of Applied Power, in Butler, Wisconsin, USA for 4 years where he was Engineering Manager for Advanced Products. During this time, he developed a modular valve system and a line of radial-piston pumps for high pressure (700 bar). Returning to Germany, Valentin founded the Büro Valentin company where from 1982-1989 he developed a line of hand- and electro-hydraulic pumps and valves for high pressure (10,000 psi) and low flow. The valve system was sold to a manufacturer of hydraulics in Germany. He also developed a patented new hydraulic axial piston pump/motor unit, swashplate-type for automotive applications, which subsequently was tested at the army proving grounds, with a Swiss construction machinery manufacturer, and by the University of Wisconsin-Madison in the U.S. Currently, he is president of Valentin Technologies, Inc. in Elm Grove, Wisconsin, a company that he founded in 1989 to develop a new hydraulic axial-piston motor and a new hydraulic free-piston engine for hydrostatic powertrains on passenger vehicles. He has since developed a self-supporting car platform for passenger cars as well as a conceptual hydrostatic powertrain for large wind turbines (5 MW), a 310 mph high-speed helicopter, and an all-wheel drive tracked vehicle with 1,360 hp. Valentin has an extensive patent portfolio and has made numerous presentations at industry conferences. His hydraulic motor is also a recipient of a U.S. Department of Energy grant. To date he has invested \$1.1-million USD in his inventions without full-time labor.



Eric Wollan

Eric Wollan is currently Technical Director at PlastiComp, a long-fiber composites technology company headquartered in Winona, Minnesota, where he leads the custom composite development and product design and analysis teams. He has been with the firm for 10 year in a variety of roles from research to manufacturing and business development. He is a graduate of the Composite Materials Engineering program at Winona State University.



Robert Yancey

Dr. Robert Yancey has over 30 years' experience in the composites industry with a focus on modeling and simulation methods, design optimization, and non-destructive evaluation. He currently oversees the Aerospace and Composite activities at Altair where he provides strategic direction to the composite simulation technologies being developed and applied. Yancey holds degrees from Massachusetts Institute of Technology, Virginia Tech, and the University of Dayton, all with a focus on composite mechanics.



Yankai Yang

Mr. Yankai Yang got his Ph.D. degree in Polymer Science and Engineering from Case Western Reserve University. He previously worked for 2 years as a Research Fellow at the Polytechnic Institute of New York University on the application of flame-retardant additives in different polymer systems including thermoplastics and thermosets. Yang is currently a Product Developer for Hanwha Azdel Inc., where he works on developing new products and new technologies for the automotive industry.



Jennifer Zhu

Jennifer Zhu is a Research Scientist in the Materials and Manufacturing research group at Ford Motor Co., where she works on sustainable plastic and elastomeric materials. She received her B.S. degree in Chemical Engineering from the California Institute of Technology. In addition to working at Ford, she is also getting her M.S. degree in Chemical Engineering at University of Michigan.