

Tuesday, May 22			
7:30 AM - 4:00 PM	Registration		
9:00 AM - 2:00 PM Workshops	Fundamentals: Additive Manufacturing <i>Graham Tromans, G P Tromans Associates</i>	Fundamentals: Reverse Engineering & 3D Data Capture <i>Giles Gaskell, Wenzel America Ltd</i>	Metal Parts Using Additive Technologies <i>Brent Stucker, University of Louisville</i>
2:00 PM - 5:00 PM	Conference Kick-off: Innovations in Additive Manufacturing		
5:00 PM - 6:00 PM	Networking Reception featuring 3D FABulous Fashion Show and RTAM Tech Group Poster Session		
Wednesday, May 23			
7:00 AM - 4:00 PM	Registration		
8:00 AM - 9:00 AM	KEYNOTE Rapid Results: Prodrive's Development of the MINI John Cooper Works World Rally Car <i>Paul Doe, Chief Designer, Prodrive Motorsport Ltd.</i>		
9:00 AM - 9:20 AM	BREAK		
9:00 AM - 6:00 PM	Show Hours		
AM SESSIONS	3D Imaging	Medical & Dental	Transportation
9:20 AM - 9:45 AM	Shape Engineering and Design Parameterization in Reverse Engineering <i>Kuang-Hua Chang, The University of Oklahoma</i>	Additive Manufacturing in Medicine Requires a Multidisciplinary Approach <i>Peter Liacouras, Walter Reed National Military Medical Center</i>	Prototype Development at Trek Bicycle Corp <i>Mike Zeigle, Trek Bicycle Corporation</i>
9:45 AM - 9:50 AM	BREAK	BREAK	BREAK
9:50 AM - 10:15 AM	3D Scan-To-CAD, Does 1+1 Really Equal 2? <i>Michael Mock, INUS Technology</i>	Producing fMRI Compatible Devices Using Additive Manufacturing <i>Sheku Kamara, Rapid Prototyping Consortium, Milwaukee School of Engineering</i>	Boeing's Phantom Eye and Manufacturing <i>Scott E. Martin, Boeing</i>
10:15 AM - 10:20 AM	BREAK	BREAK	BREAK
10:20 AM - 10:45 AM	Reverse Engineering: Technology of Reinvention <i>Wego Wang, University of Massachusetts Lowell</i>	The Use of Continuous Digital Light Processing (cDLP), Stereolithography (SLA), and Other Techniques for the Highly Accurate Additive Manufacturing of Resorbable Tissue Engineered Scaffolds <i>David Dean, Case Western Reserve University</i>	Additive Manufacturing in Aerospace - Prototyping to Production <i>Agnes Klucha, Pratt & Whitney</i>
10:45 AM - 10:50 AM	BREAK	BREAK	BREAK
10:50 AM - 11:15 AM	Automated 3D Scanning and Analysis of Automotive Parts: A Systems Integration Case Study <i>Damion Shelton & Mike Formica, threeRivers 3D, Inc</i>	Innovative Use of DMSLS to Create an Articulating Section for use in BaroSense's Articulating Medical Device <i>Bretton Swope, BaroSense</i>	Integrated Rapid 3D Mapping and Laser Additive Repair of Gas Turbine Engine Components <i>Matthew Donovan, Goodrich and Lijue Xue, Nat'l Research Council Canada</i>
11:15 AM - 11:20 AM	BREAK	BREAK	BREAK
11:20 AM - 11:45 AM	The Search for the Golden Part <i>Stephen Spanoudis, Motorola Solutions Inc</i>	Biological Evidences of Benefits for Additive Manufactured Porous Titanium Foams <i>Emanuele Magalini, Eurocoating spa.</i>	Utilizing Various Technologies to Meet Accelerated Product Development Schedules <i>Scott Chapman & Thad Tibbetts, Applied Technology Integration</i>
11:45 AM - 11:50 AM	BREAK	BREAK	BREAK
11:50 AM - 12:15 PM	Heritage, Arts and 3D Technologies <i>Charles-Olivier Roy, Artisans due Passage</i>	Additive Manufacturing - How Implant Manufacturers Use it to Reduce Production <i>James Robinson, Arcam AB</i>	Additive Manufacturing of Aluminum Parts - An Alternative to Casting? <i>Andreas Berkau, cltm GmbH</i>
Noon - 1:00 PM	Additive Manufacturing Briefing	3D Imaging Briefing	3D Imaging Briefing
Noon - 1:30 PM	Lunch on the Show Floor		
AM SESSIONS	3D Imaging	Medical & Dental	Final Part Production
1:30 PM - 1:55 PM	How Useful is That! What You Can Do With CT Scanning <i>Giles Gaskell, Wenzel America and Rus Emerick, Schneider-Electric</i>	The Use of Additive Fabrication to Produce Biomimetic Structures <i>Scott DeFelice, Oxford Performance Materials, LLC</i>	Democratizing Design for Additive Manufacturing <i>Siavash Mahdavi & Lisa Harouni, Digital Forming</i>
1:55 PM - 2:00 PM	BREAK	BREAK	BREAK
2:00 PM - 2:25 PM	Project "OREO" - A Custom Polycarbonate Canine Implant Made with FDM Technology <i>Martin Petrak, Orthopaedic Innovation Centre and Trina Bailey, Atlantic Veterinary College, UPEI</i>	Force Sensors for Humans Built Inside Additive Manufacturing <i>Richard Ranky, Northeastern University: Biomedical Mechatronics Laboratory</i>	Fabricating Small Functional Parts with a 3D Metal Printer <i>Arif Sirtirlikci, Robert Morris University</i>
2:25 PM - 2:30 PM	BREAK	BREAK	BREAK
2:30 PM - 2:55 PM	Use of Simulation for Design, Engineering, Maintenance and Verification Activities <i>Mike Mazen, Southeastern Institute of Manufacturing and Technology</i>	Materials for Medical Implants and Scaffolds by Additive Manufacturing <i>Howard Kuhn, University of Pittsburgh</i>	17-4 PH Stainless Steel from the SLM Process <i>Shane Collins, Directed Manufacturing</i>
2:55 PM - 3:00 PM	BREAK	BREAK	BREAK
3:00 PM - 3:25 PM	3D Imaging: The Reality of Digital Reality Capture <i>Michael Raphael, Direct Dimensions Inc</i>	Ceramics Custom Cranial Implant Produced by Stereolithography <i>JB Lalron, 3D Ceram USA</i>	Vision on Mass Production AM <i>Krista Polle & Mark Vaes, TNO Innovations</i>
3:25 PM - 3:30 PM	BREAK	BREAK	BREAK
3:30 PM - 3:55 PM	From Worn-out Pump Impellers to Brand New Castings - The All-digital Process Without Tooling or Patterns <i>Dan Maas, ExOne</i>	Designing Porous Surfaces on Medical Components using Additive Metals <i>Chuck Hanford, Morris Medical</i>	Aluminum: Pushing the Envelope of Generative Techniques <i>Klaus Mueller-Lohmeier, Festo AG&Co. KG</i>
3:55 PM - 4:00 PM	BREAK	BREAK	BREAK
4:00 PM - 4:25 PM	Scan My Part <i>Panel Discussion</i>		Trends Driving Additive Manufacturing for Final Part Production <i>Tim Caffrey, Wohlers Associates</i>

Thursday, May 24

7:00 AM - 4:00 PM	Registration			
8:00 AM - 9:00 AM	KEYNOTE Additive Manufacturing: State of the Industry <i>Terry Wohlers, President, Wohlers Associates</i>			
9:00 AM - 9:20 AM	BREAK			
9:00 AM - 6:00 PM	Show Hours			
AM SESSIONS	Creative/Innovative	Casting	Additive Manufacturing Applications	
9:20 AM - 9:45 AM	Pathways to Innovation: Intellectual Property Rights In Additive Manufacturing <i>William Cass, Cantor Colburn LLP</i>		From Tactile Mathematics to Interactivity in Physical 4-D <i>Stewart Dickson, Wolfram Research Inc</i>	
9:45 AM - 9:50 AM	BREAK	BREAK	BREAK	
9:50 AM - 10:15 AM	D_Shape - Construction 3D Printing: Reflection On Current Projects and the State Of Technology Development <i>James Gardiner, Engineering Excellence Group</i>	AFS Seminar This seminar provides an interactive overview of various metalcasting processes and alloys so that one can make better design and sourcing decisions for engineered cast components. The application of adaptive manufacturing and rapid prototyping technology contributes to reducing the time and cost to develop new component designs. Other examples of conversions from manufacturing process will be discussed. An informed designer and purchaser will receive an understanding of how the proper material/process marriage can unleash the power of metalcasting and be better equipped to create the most cost effective product.	Prototyping Doesn't Stop with the Parts <i>Duane Byerley, Xerox Corp</i>	
10:15 AM - 10:20 AM	BREAK		BREAK	
10:20 AM - 10:45 AM	A Mammoth Challenge: Completing the Hebior Mammoth <i>Vince Anewenter, Milwaukee School of Engineering</i>		Laser Sintered Parts with Reduced Anisotropy of Mechanical Properties <i>Andreas Wagner, University of Duisburg-Essen</i>	
10:45 AM - 10:50 AM	BREAK		BREAK	
10:50 AM - 11:15 AM	The Evolution of a Sugar Bowl <i>Stephen Hoskins, University of the West of England, Bristol</i>		Collaborative Standards Development: ASTM International Committee F42 and ISO TC 261 <i>Pat Picariello, ASTM International</i>	
11:15 AM - 11:20 AM	BREAK		BREAK	
11:20 AM - 11:45 AM	New Models for Ceramics: 3D Technology and Recent Work <i>Anna Calluori Holcombe, University of Florida</i>		Gateways Toward Dissimilar Multi-material Parts <i>Jason Jones, De Montfort University</i>	
11:45 AM - 11:50 AM	BREAK	BREAK		
11:50 AM - 12:15 PM			Post-processing of FDM-manufactured Parts: Sealing, Bonding, and Smoothing <i>David Espalin, University of Texas at El Paso</i>	
Noon - 1:00 PM	Additive Manufacturing Briefing		3D Imaging Briefing	
Noon - 1:30PM	Lunch on the Show Floor			
PM SESSIONS	Creative/Innovative	Casting	Developing the Additive Manufacturing Workforce	Direct Write Printed Materials/Electronics
1:00 PM - 1:25 PM				Direct Write Technology Deposition Testing Overview <i>Scott Johnston, Boeing</i>
1:25 PM - 1:30 PM				
1:30 PM - 1:55 PM	Challenge Make Sculpture Viral <i>David Van Ness, Northern Arizona University</i>	Nopatech: A Pattern-free Technology for Large Castings <i>Marc Savard, Fonderie Saguenay</i>	GT MENTOR: A Major High School Outreach Effort <i>David Rosen, Georgia Institute of Technology</i>	3D Printing Computing Power <i>David ten Have, Ponoko</i>
1:55 PM - 2:00 PM	BREAK	BREAK	BREAK	BREAK
2:00 PM - 2:25 PM	Beyond Black Boxes <i>Francois Kern, C2P Inc</i>	Rapid Premonitions: What the Convergence of Art and Science Can Yield <i>Laura West, Fresno City College</i>	Additive Manufacturing Education The Emerging Workforce <i>Ed Tackett, RapidTech</i>	Designing Functional Materials for Digital Manufacturing <i>Scott Slimmer, University of Illinois</i>
2:25 PM - 2:30 PM	BREAK	BREAK	BREAK	BREAK
2:30 PM - 2:55 PM	Material Parameter Development for Manufacturing Using an Arcam Electron Beam Melting System <i>Francisco Medina and David Espalin, University of Texas at El Paso</i>	Prototype Aluminum Castings Using Lost RP Model Process <i>Paul Armstrong, Armstrong Mold Corp</i>	The Digital Advantage <i>Justin Hopkins, SCAD</i>	Aerosol Jet® Printer for 3D Interconnect Applications <i>Michael O'Reilly, Optomec Inc</i>
2:55 PM - 3:00 PM	BREAK	BREAK	BREAK	BREAK
3:00 PM - 3:25 PM	Additive Manufacturing of Bronze Components <i>Howard Kuhn, ExOne</i>	Sand Printed Prototypes - Advantages to Aerospace <i>Peter Clark, Magellan Aerospace</i>	Idea 2 Product Lab - The Next Phase <i>Deon de Beer, Vaal University of Technology, South Africa</i>	Hybrid Micro-Scale Additive Manufacturing for 3D Structural Electronics <i>Jae-Won Choi, The University of Akron</i>
3:25 PM - 3:30 PM	BREAK			BREAK
3:30 PM - 3:55 PM	Steel Forming Using Additive Manufacturing <i>Jason Reznar, RayCE America's</i>	Direct Digital Manufacturing of Airfoils <i>Suman Das, Georgia Institute of Technology</i>		Fine Line Direct Printing for Electronics and 3D Prints <i>Kenneth Church, nScript Inc</i>
4:30 PM - 6:00 PM	Networking Reception on Show Floor			

Friday, May 25

9:00 AM - Noon	Tour 1: Newell/Rubbermaid and Slingshot Product Development Group Inc.	Tour 2: Georgia Institute of Technology and Inferno Art Foundry		
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