

# Event Agenda

- ✓ Included with Your Expo Registration
- + Additional Registration Fee Required

## Keynotes, Thought Leadership Panels, Conference Presentations & more...

Monday, September 13	Tuesday, September 14	Wednesday, September 15
<ul style="list-style-type: none"> <li>✓ <b>Keynote Presentation</b> 9:00 am – 10:00 am   Main Stage <b>How AM is Disrupting the Aerospace Industry: Opportunities and Challenges on the Road Ahead</b> Melissa Orme, PhD   The Boeing Co.</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Keynote Presentation</b> 9:00 am – 10:00 am   Main Stage <b>An Industry 30+ Years in the Making</b> Terry Wohlers, Dr. h.c., FSME   Wohlers Associates, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Keynote Presentation</b> 9:00 am – 10:00 am   Main Stage <b>How Technology is Changing Healthcare</b> Mark Wehde   Mayo Clinic</li> </ul>
<ul style="list-style-type: none"> <li>✓ <b>Exhibits Open</b>   10:00 am – 6:00 pm</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Exhibits Open</b>   10:00 am – 5:00 pm</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Exhibits Open</b>   10:00 am – 3:00 pm</li> </ul>
<ul style="list-style-type: none"> <li>✓ <b>SME ZONE</b>   10:00 am – 6:00 pm</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>SME ZONE</b>   10:00 am – 5:00 pm</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>SME ZONE</b>   10:00 am – 3:00 pm</li> </ul>
<ul style="list-style-type: none"> <li>✓ <b>Industry Partner Presentations</b> 10:00 am – 6:00 pm   SME ZONE Theater</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Industry Partner Presentations</b> 10:00 am – 5:00 pm   SME ZONE Theater</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Industry Partner Presentations</b> 10:00 am – 3:00 pm   SME ZONE Theater</li> </ul>
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<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 10:30 am – 11:45 am   Main Stage Breakthrough to Manufacturing with AM – What You Need to Know</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 10:30 am – 11:45 am   Main Stage Materials: From Selection to Market</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 10:30 am – 11:45 am   Main Stage Castings Roundtable Discussion</li> </ul>
<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 11:00 am – 11:30 am   Classrooms A, B, C, D</li> </ul>	<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 11:00 am – 11:30 am   Classrooms A, B, C, D</li> </ul>	<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 11:00 am – 11:30 am   Classrooms A, B, C, D</li> </ul>
<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 12:00 pm – 1:15 pm   Main Stage Industrial Manufacturers Discuss the Production Readiness of Additive Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 12:00 pm – 1:15 pm   Main Stage Design Workflow for Additive Manufacturing: Lessons Learned from the Trenches</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 12:00 pm – 1:15 pm   Main Stage Being Agile Using Additive Manufacturing – When Does It Make Sense</li> </ul>
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<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 1:00 pm – 1:30 pm   Classrooms A, B, C, D</li> </ul>	<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 1:00 pm – 1:30 pm   Classrooms A, B, C, D</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Career Development Forum</b> 12:30 pm – 1:30 pm   Classrooms A, B, C, D</li> </ul>
<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 1:30 pm – 2:45 pm   Main Stage Supply Chain Transformation: Driving an Agile and Networked Ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 1:30 pm – 2:45 pm   Main Stage Hospital-Based 3D Printing: Better Patient Care Through In-House Manufacturing?</li> </ul>	<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 1:00 pm – 1:30 pm   Classrooms A, B, C, D</li> </ul>
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<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 3:00 pm – 4:15 pm   Main Stage Additive Manufacturing in the Department of Defense</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Thought Leadership Panel</b> 3:00 pm – 4:15 pm   Main Stage Are You Using Additive the Best Way for Your Manufacturing Operations? CATCH UP!</li> </ul>	<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 2:00 pm – 2:30 pm   Classrooms A, B, C, D</li> </ul>
<ul style="list-style-type: none"> <li>✓ <b>AM Awards Ceremony</b> 3:30 pm – 4:30 pm   SME ZONE Theater</li> </ul>	<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 3:00 pm – 3:30 pm   Classrooms A, B, C, D</li> </ul>	<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 2:00 pm – 2:30 pm   Classrooms A, B, C, D</li> </ul>
<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 3:00 pm – 3:30 pm   Classrooms A, B, C, D</li> </ul>	<ul style="list-style-type: none"> <li><b>Networking Reception*</b></li> </ul>	
<ul style="list-style-type: none"> <li>+ <b>Concurrent Conference Presentations</b> 4:00 pm – 4:30 pm   Classrooms A, B, C, D</li> </ul>		
<ul style="list-style-type: none"> <li><b>Networking Reception*</b></li> </ul>		

\*SME reserves the right to amend this program.

# Main Stage

## Keynotes and Thought Leadership Panels

RAPID + TCT Main Stage presentations feature industry-leading speakers highlighting real-world examples of Additive Manufacturing opportunities and challenges. You'll learn about how 3D technologies are transforming a wide variety of industries and what you can do to stay ahead of the competition.

**Admission to Main Stage Presentations is Included with All Registrations.**

### Day 1 - Monday, September 13

9:00 AM - 10:00 AM	<b>KEYNOTE: How AM is Disrupting the Aerospace Industry: Opportunities and Challenges on the Road Ahead</b> Melissa Orme, PhD, Vice President   The Boeing Co.	
<b>Breakthrough to Manufacturing with AM — What You Need to Know</b>		
10:30 AM - 11:45 AM	Moderator: <b>Todd Grimm</b>   T.A. Grimm & Associates	Panelists: <b>Callie Zawaski</b>   Virginia Tech <b>Nic Sabo</b>   GE Additive <b>Jerone Anderson</b>   General Motors
<b>Industrial Manufacturers Discuss the Production Readiness of Additive Manufacturing</b>		
12:00 PM - 1:15 PM	Moderator: <b>Brennon White</b>   GM Additive Design & Manufacturing Group	Panelists: <b>Stacey DelVecchio</b>   StaceyD Consulting <b>Nick Mulé</b>   Boeing Additive Manufacturing Intelligence Center <b>Adeola "Addy" Olubamiji, PhD</b>   Desktop Metal
<b>Supply Chain Transformation: Driving an Agile and Networked Ecosystem</b>		
1:30 PM - 2:45 PM	Moderator: <b>Chandra Brown</b>   MxD	Panelists: <b>Rogério Branco</b>   Eaton <b>Lou Rassey</b>   Fast Radius <b>Michelle Bockman</b>   3D Control Systems <b>John Dulchinos</b>   Jabil
<b>Additive Manufacturing in the Department of Defense</b>		
3:00 PM - 4:15 PM	Moderator: <b>Michael Nikodinovski</b>   U.S. Army	Panelists: <b>James Zunino</b>   U.S. Army <b>Joe Kott</b>   U.S. Army <b>Debra Lilu</b>   National Center for Manufacturing Sciences <b>Kristin Holzworth, PhD</b>   Marine Corps Systems Command

## Day 2 - Tuesday, September 14

9:00 AM - 10:00 AM	<b>KEYNOTE: An Industry 30+ Years in the Making</b> Terry Wohlers, Dr. h.c., FSME, Principal Consultant and President   Wohlers Associates Inc.	
	<b>Materials: From Selection to Market</b>	
10:30 AM - 11:45 AM	Moderators: <b>Eric Barnes</b>   Northrop Grumman Corp. <b>Larry "LJ" Holmes Jr.</b>   University of Delaware	Panelists: <b>Amber Andreaco</b>   GE Additive <b>Ronald Adams</b>   QuesTek <b>Richard Merlino</b>   ATI <b>Regina Pynn</b>   Hexcel <b>Ellen Lee, PhD</b>   Ford Motor Co.
	<b>Design Workflow for Additive Manufacturing: Lessons Learned from the Trenches</b>	
12:00 PM - 1:15 PM	Moderator: <b>Brian Levy</b>   Joe Gibbs Racing	Panelists: <b>Chris Collins</b>   Tangible Solutions <b>Jennifer Coyne</b>   Barnes Global Advisors <b>Humna Khan</b>   Astro Mechanical Testing Laboratory
	<b>Hospital-Based 3D Printing: Better Patient Care Through In-House Manufacturing?</b>	
1:30 PM - 2:45 PM	Moderator: <b>Andy Christensen, FSME</b>   University of Ottawa	Panelists: <b>Beth Ripley, MD, PhD</b>   VA Puget Sound Health Care System and U.S. Department of Veterans Affairs <b>Peter Liacouras, PhD</b>   Walter Reed National Military Medical Center <b>Jonathan Morris, MD</b>   Mayo Clinic <b>Justin Ryan, PhD</b>   Rady Children's Hospital-San Diego
	<b>Are You Using Additive the Best Way for Your Manufacturing Operations? CATCH UP!</b>	
3:00 PM - 4:15 PM	Moderator: <b>Carl Dekker</b>   Met-L-Flo	Panelists: <b>Brennon White</b>   GM Additive Design & Manufacturing Group <b>Dan Braley, CAM-T</b>   Boeing Global Services

## Day 3 - Wednesday, September 15

9:00 AM - 10:00 AM	<b>KEYNOTE: How Technology is Changing Healthcare</b> Mark Wehde, Chair, Mayo Clinic Engineering   Mayo Clinic	
	<b>Castings Roundtable Discussion</b>	
10:30 AM - 11:45 AM	Participants: <b>Thomas Sorovetz</b>   Stellantis N.V. <b>Zayna Connor, PhD</b>   ZMC Consulting Inc.	
	<b>Being Agile Using Additive Manufacturing — When Does It Make Sense</b>	
12:00 PM - 1:15 PM	Moderator: <b>Kevin Ayers</b>   AM Consultant	Panelists: <b>Tim DeRosett</b>   Jabil <b>Dan Brunermer</b>   The ExOne Co. <b>Dave Rittmeyer</b>   Hoosier Pattern Inc.
	<b>3D Scanning — Why Do It and How</b>	
1:30 PM - 2:45 PM	Moderator: <b>Giles Gaskell</b>   Hexagon Manufacturing Intelligence	Panelists: <b>Greg Groth</b>   Exact Metrology <b>Andrew Ramsey</b>   Nikon Metrology Inc. <b>Michael Raphael</b>   Direct Dimensions Inc. <b>Jake Rickter</b>   Pinnacle X-Ray Solutions Inc.

# Conference

70+ Presentations. 150+ Expert Speakers.

**SAVE \$100**

Use promo code **RP21CONF100V** for \$100 off any Conference Pass.

Any Conference Pass provides you with access to all Exhibits, Event Special Features, SME ZONE, Keynotes and Thought Leadership Panels.

## RAPID + TCT Conference Advisors:

**Ted Anderson**, *Industrialization Leader, Additive Technologies, GE Additive*  
**Kevin Ayers**, *AM Consultant*  
**Eric Barnes**, *Northrop Grumman Fellow, Northrop Grumman Corp.*  
**Dan Braley, CAM-T**, *Associate Technical Fellow, Boeing Global Services*  
**Rex Brown**, *Principal Mechanical Engineer, Honeywell (Retired)*  
**Zayna Connor, PhD**, *Independent Consultant, ZMC Consulting Inc.*  
**April Cooke, PhD**, *Senior Process Engineer, Seurat Technologies Inc.*  
**Denis Cormier, PhD**, *Earl W. Brinkman Professor, Rochester Institute of Technology*  
**Vesna Cota**, *Founder, VMMI*  
**Carl Dekker**, *President, Met-L-Flo*  
**Abbey Delaney**, *Global Field Marketing Manager, BigRep America Inc.*  
**Eric Fodran, PhD**, *Senior Staff Engineer, Additive Manufacturing & Emerging Programs, Northrop Grumman Corp.*  
**Boris Fritz**, *Adjunct Professor, University of Southern California*  
**Eliana Fu, PhD**, *Industry Manager - Aerospace & Medical, TRUMPF Inc.*  
**Giles Gaskell**, *Commercial Business Manager for Structured Light Scanning, Hexagon Manufacturing Intelligence*  
**Charles Gilman**, *Mechanical Engineer, Gilman Analytics*  
**Todd Grimm**, *President, T.A. Grimm & Associates*  
**Edward Herderick, PhD**, *Director, Additive Manufacturing, The Ohio State University*  
**Larry "LJ" Holmes Jr.**, *Assistant Director, Digital Design and Additive Manufacturing, University of Delaware*  
**Sheku Kamara**, *Dean of Applied Research, Milwaukee School of Engineering*  
**David Leigh**, *CTO for Additive Manufacturing, 3D Systems Corp.*  
**Brian Levy**, *Aerodynamics Engineer, Joe Gibbs Racing*  
**Michael Nikodinovski**, *Manufacturing Engineer, US Army*  
**Michael Raphael**, *CEO & President, Direct Dimensions Inc.*  
**Brandon Ribic, PhD**, *Technology Director, National Center for Defense Manufacturing & Machining*  
**Thomas Sorovetz**, *Fastener Engineer, Stellantis N.V.*  
**Brennon White**, *Product Application Engineer (Interiors), GM Additive Design & Manufacturing Group*  
**James Woodcock**, *VP, Content, Strategy & Partnerships, TCT Rapid News*

## 3 KEY THEMES

As you explore RAPID + TCT's comprehensive education lineup, you'll notice prevalent themes centered around Evaluation, Adoption and Optimization. When you attend, you'll hear real-life examples of how industry leaders are implementing Additive Manufacturing and review case studies on how the technology is transforming traditional manufacturing.

### E EVALUATION

If you're an industry newcomer assessing the capabilities and limitations of AM and 3D printing, are seeking AM guidance or if you are in process of evaluating if AM is a viable solution for your business strategies, join presentations focused on Evaluation to help you start developing your own comprehensive technology roadmap.

### A ADOPTION

If you have already invested in AM and want to discover more ways to leverage the technology within your organizations, join Adoption presentations designed to provide you with an in-depth understanding of how industries have successfully implemented the technology to drive innovation and business growth.

### O OPTIMIZATION

If you have advanced knowledge of the market and are ready to take the next step in your AM journey, Optimization presentations will offer how to maximize the performance, efficiency, and profitability of mature AM installations, and help identify new business models by showcasing new and emerging technologies, methods, materials, continuous improvement of AM applications.

# Conference At-A-Glance Day 1 - Monday, September 13

3 KEY THEMES:



9:00 AM - 10:00 AM Main Stage	KEYNOTE: How AM is Disrupting the Aerospace Industry: Opportunities and Challenges on the Road Ahead Melissa Orme, PhD, Vice President   The Boeing Co.			
	Classroom A	Classroom B	Classroom C	Classroom D - Medical
10:00 AM - 10:30 AM	<p><b>OPTIMIZATION</b> Advances in 3D-Printed Food, Medicine and Electronics Noah Mostow Wohlers Associates Inc.</p>	<p><b>EVALUATION</b> Empowering Quality Control &amp; Inspection at Every Level with 3D Scanning Giles Gaskell Hexagon Manufacturing Intelligence</p>	<p><b>OPTIMIZATION</b> The Next Design Frontier: Generative Design Powered by AI and AM Andreas Vlahinos Advanced Engineering Solutions</p>	<p><b>OPTIMIZATION</b> AM Application in Living Donor Liver Transplantation to Advance Realistic Simulation for Segmental Grafts Adoption and Practice Rami Shorti, PhD   Intermountain Healthcare Inc.</p>
11:00 AM - 11:30 AM	<p><b>ADOPTION</b> Chemical Post-Processing Advantages for High-Temperature Metal Alloys on Additive Manufactured Parts Jim Ringer   Tech Met Inc.</p>	<p><b>ADOPTION</b> Direct Part Printing is the Future, Advanced Automotive Tooling is the Now Jon Walker   EOS North America</p>	<p><b>ADOPTION</b> Experiences in Additive Manufacturing Technologies for Aerospace Applications David Waller   Ball Aerospace</p>	<p><b>OPTIMIZATION</b> CPT Codes, Billing &amp; Reimbursement Andy Christensen, FSME   University of Ottawa Jonathan Morris, MD   Mayo Clinic</p>
12:00 PM - 12:30 PM	<p><b>OPTIMIZATION</b> Effect of Microstructure on the Damage Evolution of Additively Manufactured Inconel 718 William Parks   Southern Research Institute</p>	<p><b>ADOPTION</b> Hybrid AM: Ready to Use, Finish Machined Large Metal Parts Slade Gardner, PhD Big Metal Additive</p>	<p><b>ADOPTION</b> Making an Impact: The Perfect Fitz: Re-Thinking Kid's Customized Eyewear with AM Michael Schorr   DyeMansion Gabriel Schlumberger   Fitz Frames Inc.</p>	<p><b>ADOPTION</b> Point of Care Manufacturing — The Veterans Health Administration Experience Beth Ripley, MD, PhD &amp; Brian Strzelecki VA Puget Sound Healthcare</p>
1:00 PM - 1:30 PM	<p><b>ADOPTION</b> Maturation and Implementation of Electron Beam Powder Bed Fusion Peter Le &amp; Eric Fodran, PhD Northrop Grumman Aeronautical Systems</p>	<p><b>OPTIMIZATION</b> Performance SLS Printed Nylon 11 Parts Post-Processed Luis Folgar Additive Manufacturing Technologies Inc.</p>	<p><b>ADOPTION</b> Producing Castings Using 3D Sand Printing Dave Rittmeyer Hoosier Pattern Inc.</p>	<p><b>ADOPTION</b> Lessons from Building Three Point-of-Care 3D Printing (and Extended Reality) Programs Justin Ryan, PhD   Rady Children's Hospital-San Diego Christopher Howard   Medical Sensor Systems</p>
2:00 PM - 2:30 PM	<p><b>ADOPTION</b> Producing Customer-Ready Parts: Navigating the Leap from Prototyping to Production Jeff Mize PostProcess Technologies Inc.</p>	<p><b>OPTIMIZATION</b> Using High-Resolution X-ray Computed Tomography to Inspect Additive Manufactured Parts Andrew Ramsey   Nikon Metrology Inc.</p>	<p><b>OPTIMIZATION</b> Printed Ceramic Tooling Disrupting Automotive and Aerospace Composite Manufacturing Rick Lucas   The ExOne Co.</p>	<p><b>ADOPTION</b> A Locking System for Additively Manufactured Implants: Strength Under Static and Dynamic Load Ralf Fischer   Auburn University</p>
3:00 PM - 3:30 PM	<p><b>OPTIMIZATION</b> How to Scale 3D Printing with Distributed Manufacturing Vishal Singh   Link3D</p>	<p><b>OPTIMIZATION</b> An Open-Architecture Multi-Laser Research Platform for Acceleration of Large-Scale Additive Manufacturing (ALSAM) Christopher Immer   GE Research</p>	<p><b>OPTIMIZATION</b> Smart Baseplate for Metal Additive Manufacturing Mark Norfolk   Fabrasonic</p>	<p><b>OPTIMIZATION</b> 3D-Painting and 3D-Painted Hyperelastic Bone® for Maxillofacial Repair and Reconstruction Adam Jakus, PhD   Dimension Inx Corp.</p>
4:00 PM - 4:30 PM	<p><b>EVALUATION</b> Building a Better Business Case for Additive Manufacturing and Multi-Jet Fusion Michael Rosplock   Enerpac</p>	<p><b>ADOPTION</b> 3D Printing Refractory Metals for Extreme Environment Applications Youping Gao, PhD &amp; Melissa Benson   Casttheon Inc.</p>	<p><b>ADOPTION</b> The 5 Cost Drivers of Metal AM Stop Flying Blind and Build a Lasting Business Case Matt Sand   3DEO Inc.</p>	

CONFERENCE PRESENTATIONS

# Conference At-A-Glance Day 2 - Tuesday, September 14

3 KEY THEMES:



CONFERENCE PRESENTATIONS

9:00 AM - 10:00 AM Main Stage	KEYNOTE: An Industry 30+ Years in the Making Terry Wohlers, Dr. h.c., FSME, Principal Consultant and President   Wohlers Associates, Inc.			
	Classroom A	Classroom B	Classroom C	Classroom D - Medical
10:00 AM - 10:30 AM	<b>ADOPTION</b> Applications of Additive Manufacturing for Aerospace Spares and Repairs Dan Braley, CAM-T   Boeing Global Services	<b>OPTIMIZATION</b> Additively Manufactured A7050 Aluminum using Laser-Powder Bed Fusion Crosby Owens Northrop Grumman Aeronautical Systems	<b>OPTIMIZATION</b> Thermo-Mechanical Analysis, Process Simulation and Allowable Generation of Fused Deposition Modeling Printed ULTEM 9085 Harsh Baid, PhD   AlphaSTAR Corp.	<b>ADOPTION</b> The Use of NPJ-Enabled Ceramic AM in Treating Breast Cancer Dror Danaï   Xjet
11:00 AM - 11:30 AM	<b>EVALUATION</b> Breaking Barriers Between Additive and Mainstream Manufacturing with Hybrid Jason Jones, PhD   Hybrid Manufacturing Technologies	<b>OPTIMIZATION</b> 3D Printed Polymer Blends Fabricated using Grayscale Digital Light Processing John Hergert, PhD   University of Colorado Boulder	<b>OPTIMIZATION</b> New & Emerging Trends in Design for Additive Simulation Brent Stucker, PhD   ANSYS	<b>OPTIMIZATION</b> Advances in Simulation in Head and Neck Surgery Using 3D-Printing Djordje Jaksic   University of Michigan
12:00 PM - 12:30 PM	<b>ADOPTION</b> Surface Finishing of Additive Manufactured Nickel-based Superalloys Liquid Rocket Channel Nozzles Agustin Diaz, PhD Justin Michaud REM Surface Engineering	<b>OPTIMIZATION</b> Additive Manufacturing of High-Value DLP Composites for Tunable Mechanical, Thermal and Electrical Performance Joshua Martin, PhD Fortify	<b>EVALUATION</b> How a 90-Year-Old Company Turned to Metal 3D Printing to Accelerate Its Business Solutions, Resulting in Radical New Designs, Reduction of Emissions and Dramatic Cost Savings Jonah Myerberg   Desktop Metal Jason Harjo   John Zink Hamworthy Combustion	<b>OPTIMIZATION</b> Additive Manufacturing Solutions in Orthotics and Prosthetics Brent Wright   LifeNabled Justin Hopkins   HP
1:00 PM - 1:30 PM	<b>EVALUATION</b> The Cost of Metal AM Post Processing – A Case Study Bernhard Kerschbaum Rosler Metal Finishing USA LLC	<b>OPTIMIZATION</b> Additive Manufacturing of Multifunctional Polymer Networks Frank Gardea, PhD US CCDC Army Research Laboratory	<b>ADOPTION</b> The Impact of Large Format Additive Manufacturing in Aerospace Tooling Sean Henson   Ascent Aerospace	<b>ADOPTION</b> Patient-specific Anatomic Guides for Reconstructive Surgery through Point-of-Care Manufacturing Amy Alexander   Mayo Clinic
2:00 PM - 2:30 PM	<b>EVALUATION</b> Applications or Technology: What Will Drive Production AM? Ken Burns Forecast 3D	<b>ADOPTION</b> Employing Metal Additive to Supercharge Your Injection Mold Tooling Thomas Houle Matsuura Machinery USA, LUMEX NA	<b>ADOPTION</b> 3D Printing of Structural Pedestrian Bridge Greg Costantino   Covestro Maurice Kardas Royal Haskoning DHV	<b>OPTIMIZATION</b> 3D-Printing and 3D-Painted Hyperelastic Bone for Maxillofacial Repair and Reconstruction Adam E. Jakus, PhD   Dimension Inx Corp.
3:00 PM - 3:30 PM	<b>OPTIMIZATION</b> Factory in a Cell: Hybrid Manufacturing of Continuous Fiber Reinforced Composites Andrew Purvis & Ryan Bischoff Electroimpact Inc.	<b>ADOPTION</b> Large Scale Component Fabrication Using a Novel Laser Metal Deposition with Wire and Powder Process Yashwanth Kumar Bandari, PhD   Meltio Inc.	<b>OPTIMIZATION</b> Optimization of Cast Metal Parts Using Simulation and Additive Manufacturing Drew Tucker   Altair	
4:00 PM - 4:30 PM	<b>OPTIMIZATION</b> Radiation Curable Resin for Production of Static Dissipative Parts Olga "Dr.O" Ivanova Mechnano			

# Conference At-A-Glance Day 3 - Wednesday, September 15

3 KEY THEMES:



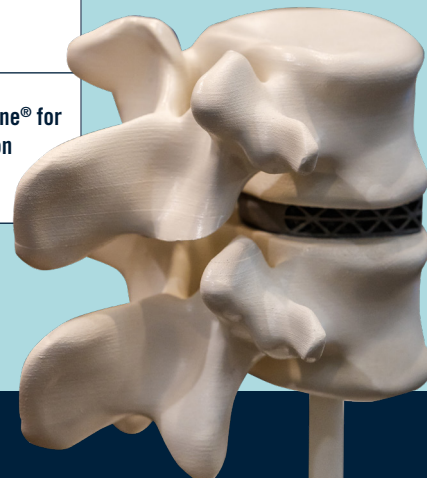
9:00 AM - 10:00 AM Main Stage	KEYNOTE: How Technology is Changing Healthcare Mark Wehde, Chair, Mayo Clinic Engineering   Mayo Clinic			
	Classroom A	Classroom B	Classroom C	Classroom D - Medical
10:00 AM - 10:30 AM	<b>OPTIMIZATION</b> Electromechanical Characterization of 3D-Printed Dielectric Material for Dielectric Electroactive Polymer Actuators David Gonzalez Purdue University	<b>OPTIMIZATION</b> The Need for Power Quality During the Additive Process Patrick Gannon ABB Inc.	<b>ADOPTION</b> Fiber Reinforced Mold Tools for More Shots with Tighter Tolerances Karlo Delos Reyes Fortify	<b>OPTIMIZATION</b> 3D Control of Properties in Single-Material Digital Stereolithography for the Treatment of Pediatric Physeal Injuries Camila Uzcategui University of Colorado Boulder
11:00 AM - 11:30 AM	<b>ADOPTION</b> Rugged 3D Printing in Austere Environments Kenneth Church, PhD nScrypt Inc.	<b>OPTIMIZATION</b> Additive Manufacturing of Ceramic Electromagnetic Device via Material Jetting Mark Mirotznik, PhD University of Delaware	<b>OPTIMIZATION</b> Stepping Through the Additive Manufacturing Workflow for Part Qualification Mike Vasquez, PhD 3Degrees LLC	<b>ADOPTION</b> Using Three-Dimensional Printing to Manufacture Low-Cost Task Trainers to Simulate Dental and Oral Surgery Applications Peter Liacouras, PhD Walter Reed Military Medical Center
12:00 PM - 12:30 PM	<b>OPTIMIZATION</b> Metal Powder Recycling Josh Lifshitz Globe Metal	<b>EVALUATION</b> 3D Scanning and Scanning Output Options Greg Groth Exact Metrology	<b>ADOPTION</b> Army Additive Manufacturing Update for Autonomous Ground Vehicles Walker Brand US Army CCDC Ground Vehicle Systems Center	<b>OPTIMIZATION</b> Deep Dive into the Similarities and Differences Between ISO 13485, FDA Registered and Having a Validated Manufacturing Process Dawn Lissy Empirical Technologies Corp.
1:00 PM - 1:30 PM	<b>OPTIMIZATION</b> 3D Printing Emissions and Their Impact on Health and Indoor Air Quality Qian Zhang, PhD Underwriters Laboratories Inc.	<b>OPTIMIZATION</b> Advancing Additive Manufacturing with Functional Generative Design Rani Richardson Colin Swearingen Dassault Systèmes	<b>OPTIMIZATION</b> Efficient Process Parameter Optimization using Machine Learning Annie Wang Senvol	<b>ADOPTION</b> 3D Printing of Digital Foams for Lightweighting Applications Using FRESH Printing Adam Feinberg Chris Sandini FluidForm
2:00 PM - 2:30 PM	<b>OPTIMIZATION</b> Collaborating to Apply the Self-Terminating Etching Process to an Inconel 718 Component Meredith Heilig, PhD & Owen Hildreth, PhD AMPP Technologies	<b>OPTIMIZATION</b> 3D & 4D Characterization of Powder Feedstock for Quality Control in Additive Manufacturing Pradeep Bhattad ZEISS Industrial Quality Solutions	<b>OPTIMIZATION</b> Bringing AM Production Floors "Online": How to Ensure Seamless In-depth Integration Between Both Worlds Dave Flynn   Materialise	

CONFERENCE PRESENTATIONS

# Medical AM Conference Track

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Day 1 - Classroom D		Day 2 - Classroom D		Day 3 - Classroom D	
10:00 AM - 10:30 AM	<b>AM Application in Living Donor Liver Transplantation to Advance Realistic Simulation for Segmental Grafts Adoption and Practice</b> Rami Shorti, PhD   Intermountain Healthcare Inc.	10:00 AM - 10:30 AM	<b>The Use of NPJ-Enabled Ceramic AM in Treating Breast Cancer</b> Dror Danaï   Xjet	10:00 AM - 10:30 AM	<b>3D Control of Properties in Single-Material Digital Stereolithography for the Treatment of Pediatric Physal Injuries</b> Camila Uzcatogui University of Colorado Boulder
11:00 AM - 11:30 AM	<b>CPT Codes, Billing &amp; Reimbursement</b> Andy Christensen, FSME   University of Ottawa Jonathan Morris, MD   Mayo Clinic	11:00 AM - 11:30 AM	<b>Advances in Simulation in Head and Neck Surgery Using 3D-Printing</b> Djordje Jaksic   University of Michigan	11:00 AM - 11:30 AM	<b>Using Three-Dimensional Printing to Manufacture Low-Cost Task Trainers to Simulate Dental and Oral Surgery Applications</b> Peter Liacouras, PhD Walter Reed Military Medical Center
12:00 PM - 12:30 PM	<b>Point of Care Manufacturing — The Veterans Health Administration Experience</b> Beth Ripley, MD, PhD & Brian Strzelecki VA Puget Sound Healthcare	12:00 PM - 12:30 PM	<b>Additive Manufacturing Solutions in Orthotics and Prosthetics</b> Brent Wright   LifeNabled Justin Hopkins   HP	12:00 PM - 12:30 PM	<b>Deep Dive into the Similarities and Differences Between ISO 13485, FDA Registered and Having a Validated Manufacturing Process</b> Dawn Lissy Empirical Technologies Corp.
1:00 PM - 1:30 PM	<b>Lessons from Building Three Point-of-Care 3D Printing (and Extended Reality) Programs</b> Justin Ryan, PhD   Rady Children's Hospital-San Diego Christopher Howard   Medical Sensor Systems	1:00 PM - 1:30 PM	<b>Patient-specific Anatomic Guides for Reconstructive Surgery through Point-of-Care Manufacturing</b> Amy Alexander   Mayo Clinic	1:00 PM - 1:30 PM	<b>3D Printing of Digital Foams for Lightweighting Applications Using FRESH Printing</b> Adam Feinberg Chris Sandini FluidForm
2:00 PM - 2:30 PM	<b>A Locking System for Additively Manufactured Implants: Strength Under Static and Dynamic Load</b> Ralf Fischer   Auburn University				
3:00 PM - 3:30 PM	<b>3D-Painting and 3D-Painted Hyperelastic Bone® for Maxillofacial Repair and Reconstruction</b> Adam Jakus, PhD   Dimension Inx Corp.				



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