



AMUG AGENDA

ADDITIVE MANUFACTURING USERS GROUP
29th Annual Additive Manufacturing Users Group
Education and Training Conference
March 19-23, 2017

Additive Manufacturing Users Group Educating and Advancing the Uses and Applications of AM Technology *AMUG For Users, By Users*

LEARN

In-depth education and training sessions by AM industry experts and OEM representatives.

NETWORK

AMUG network provides attendees access to users with 25+ years experience in the industry. Attendees network with AM-dedicated OEMs and vendors.

TRACKS INCLUDE:

- Aerospace, Space, Defense & Transportation
- Business
- Casting
- Education & Training (incl. software, materials, hands-on training)
- Scanning
- Stereolithography
- Laser Sintering
- Medical & Dental
- Metals

WHO SHOULD ATTEND

Those that have access to, use, or operate AM equipment

- > Operators > Engineers
- > Technicians > Designers
- > Managers > Educators

Register for AMUG 2017 Today!

2017 AMUG CONFERENCE

MARCH 19-23, 2017

HILTON CHICAGO

Chicago, Illinois

REGISTRATION INCLUDES

- > Conference (4 days)
- > AMUGexpo (2 nights)
- > Keynote Presentations
- > Innovators Showcase
- > General Sessions
- > Technical Sessions
- > Workshops
- > AMUG Awards Banquet
- > Technical Competition
- > Networking Lunches
- > All Meals and Beverages

All Inclusive Registration Fee

\$795 prior to 2/10/17

\$895 after 2/10/17

\$1195 after 3/11/17

Register at
www.am-ug.com

2017 AMUG DIAMOND SPONSORS



2017 AMUG PLATINUM SPONSORS

3D Platform
Arcam AB
Autodesk
BigRep GmbH
Computer Aided Technology (CATI)
Concept Laser
EnvisionTEC

Formlabs
Materialise
PostProcess Technologies
Prodways
Rize Inc
Ultimaker
Union Tech, Inc.
XJet

GENERAL INFORMATION

REGISTRATION AND BADGE PICK-UP HOURS

Sunday, March 19: 12:00pm-5:00pm
Monday, March 20: 7:00am - 8:00am, 10:30am-12:00pm
Tuesday, March 21: 7:00am - 8:00am, 10:00am-10:30am

AMUGEXPO HOURS

AMUGexpo, Student Poster Session, and Dinner
Sunday, March 19: 5:00pm-10:00pm
AMUGexpo
Monday, March 20: 10:30am - 12:00pm
AMUGexpo, Technical Competition, and Dinner
Monday, March 20: 6:00pm - 10:00pm

AWARDS BANQUET

Conference attendees have full access to all conference activities including the AMUG Tuesday night Awards Banquet. Conference attendees have the option of bringing a guest to the Awards Banquet for an additional fee, which can be purchased at the registration desk.

Awards Dinner: Tuesday, March 21
Board Buses: 5:15pm - 5:30pm
Buses Leave: 5:30pm promptly

You must wear your conference badge to board the bus. We suggest you wear closed-toe shoes and comfortable clothing.

BUS AND SHUTTLE LOCATION

AMUG provides transportation daily between the Hilton Chicago and Palmer House Hilton and to and from the Tuesday night Awards Banquet.

TRANSPORTATION LOCATION

HILTON CHICAGO: 8th Street North and South Lobby Level (next to AMUG registration)
PALMER HOUSE: All pick-up and drop offs are at Wabash Street entrance in the east side of the Palmer House hotel

DINING

Your AMUG Conference attendee pass includes all meals from Sunday evening thru Thursday evening. See page 9 for location and times.

NAME BADGES

Wear your AMUG badge at all times during the conference, as it is required for entry to all sessions and evening activities. Badges are *mandatory* for the Tuesday night event. Badges are issued to the registered individual and may not be used by others.

BUSINESS MEETING

The AMUG Business Meeting will take place Wednesday, March 22, at 11:00am. The Business Meeting is for AMUG Conference attendees only. We need 17% of the AMUG attendees present for voting purposes. All AMUG Conference attendees are considered AMUG Members, *even first time attendees*. Please make sure to attend!

WI-FI

Wi-Fi is available for free throughout the conference areas and in your hotel room at Hilton Chicago and Palmer House Hilton.

SAFETY AND SECURITY

Please do not leave your belongings or conference materials unattended in session rooms. Should you have any issues during your stay, please contact Tom Sorovetz, mobile: +1 (734) 320-6310.

RECYCLING BADGES



AMUG recycles the name badge holders. Prior to leaving the conference, please place your name badge holder in the box provided at the registration desk.

2017 AMUG CONFERENCE EVENTS AND AGENDA AT A GLANCE



SUNDAY

MARCH 19

TOUR Impossible Objects, LLC 12:00pm - 2:30pm

Tour departs from: 8th Street North and South/Lobby Level

Register for tour with: Liz Wolf
email: lwolf@impossible-objects.com
ph: 847-400-9582 ext 5

Registration 12:00pm-5:00pm

If you arrive after registration hours you may still join the AMUGexpo Sunday night

Location: 8th Street North and South/Lobby Level

New Member Welcome 4:00pm-4:30pm

Location: Continental Ballroom/Lobby Level

AMUGexpo and Dinner 5:00pm-10:00pm

with Student Poster Session
Location: Salon B, C, D/Lower Level

MONDAY

MARCH 20

Registration 7:00am-8:00am

Location: 8th Street North and South/Lobby Level

Breakfast 7:00am-8:00am

Location: Continental Ballroom A, B, C/Lobby Level

AMUG General Session and Keynote 8:00am-10:15am

Location: International Ballroom/Second Floor

Break 10:15am-10:30am

Location: Salon B, C, D/Lower Level

Registration 10:15am-12:00pm

Location: 8th Street North and South/Lobby Level

AMUGexpo and Sponsor Demos 10:30am-12:00pm

Location: Salon B, C, D/Lower Level

Networking Lunch 12:00pm-1:15pm

Location: International Ballroom/Second Floor

AMUG and Sponsor Sessions 1:30pm-5:30pm

Location: various locations

AMUGexpo and Dinner with Technical Competition 6:00pm-10:00pm

Location: Salon B, C, D/Lower Level

TUESDAY

MARCH 21

Registration 7:00am-8:00am

Location: 8th Street North and South/Lobby Level

Breakfast 7:00am-8:00am

Location: Continental Ballroom A, B, C/Lobby Level

AMUG General Session and Keynote 8:00am-10:00am

Location: International Ballroom/Second Floor

Break 10:00am-10:30am

Location: Continental Ballroom A, B, C/Lobby Level

AMUG and Sponsor Sessions 10:30am-12:00pm

Location: various locations

Networking Lunch 12:00pm-1:15pm

Location: International Ballroom/Second Floor

AMUG and Sponsor Sessions 1:30pm-4:00pm

Location: various locations

AMUG Awards Banquet Board Buses 5:15pm-5:30pm

Buses leave promptly at 5:30pm from Hilton Chicago and Palmer House

6:30pm-10:00pm

Location: Secret location.
Dress comfortably, bring a jacket and closed toe shoes.

WEDNESDAY

MARCH 22

Breakfast 7:30am-8:30am

Location: Continental Ballroom A, B, C/Lobby Level

AMUG General Session and Innovators Showcase 8:30am-10:00am

Location: International Ballroom/Second Floor

Break 10:00am-10:30am

Location: Continental Ballroom A, B, C/Lobby Level

Keynote Q&A 10:30am-11:00am

Location: Continental Ballroom A, B, C/Lobby Level

AMUG Business Meeting 11:00am-12:00pm

Location: Continental Ballroom A, B, C/Lobby Level

Networking Lunch 12:00pm-1:15pm

Location: International Ballroom/Second Floor

AMUG and Sponsor Sessions 1:30pm-5:00pm

Location: various locations

Dinner in Chicago 6:00pm-10:00pm

Location: Grand Ballroom/Second Floor
Experience Chicago in the Grand Ballroom as we take your taste buds on a culinary tour of Chicago neighborhoods.

THURSDAY

MARCH 23

Breakfast 7:30am-8:30am

Location: Grand Ballroom/Second Floor

AMUG Feedback Session and Keynote 8:30am-10:00am

Location: International Ballroom/Second Floor

Break 10:00am-10:30am

Location: Continental Ballroom A, B, C/Lobby Level

AMUG and Sponsor Sessions 10:30am-12:00pm

Location: various locations

Networking Lunch 12:00pm-1:15pm

Location: Grand Ballroom/Second Floor

AMUG and Sponsor Sessions 1:30pm-5:00pm

Location: various locations

Family Dinner - Closing 6:00pm-10:00pm

Location: Grand Ballroom/Second Floor

AMUG family dinner is a new experience. Join us for a family dinner as we close the 2017 conference. Thank you to our AMUG members that contributed family recipes.

FRIDAY

MARCH 24

UL Certification Course 8:00am-12:00pm

Location: Williford A, B, C/Third Floor

For more information and registration, visit:
www.am-ug.com

SHUTTLE SCHEDULE

AMUG Shuttle will be offered daily between the Hilton Chicago and Palmer House Hilton

SUNDAY, MARCH 19
12:00pm - 12:00am

MONDAY, MARCH 20 -
THURSDAY MARCH 23
6:00AM-10:00AM
4:00PM-12:00AM

*Shuttle will not run after 5:30pm on Tuesday, March 21 due to Awards Dinner

Monday, March 20, 2017

please consult the AMUG 2017 mobile app for abstracts, and session/speaker updates

8:00am-8:30am	AMUG OPENING ADDRESS STEVE DEAK, AMUG President						International Ballroom North & South/Second Floor	
8:30am-9:30am	KEYNOTE ADDRESS TODD GRIMM, T.A. Grimm & Associates Discovery: Technologies, Opportunities and Directions						International Ballroom North & South/Second Floor	
9:30am-10:00am	INSIGHTS AND HIGHLIGHTS AT AMUG LESLIE LANGNAU, Design World-WTWH Media and JAMES WOODCOCK, THE TCT Group Leslie and James will provide a quick look at the insights and highlights of the Diamond sponsors at AMUG						International Ballroom North & South/Second Floor	
10:00am-10:15am	KEYNOTE ADDRESS JASON LOPES, LEGACY EFFECTS A Keynote With a Twist: Virtual Tour of Legacy Effects. Jason will take us on virtual tour of Legacy Effects and their use of additive manufacturing for special effects. He will continue with video shorts on the following days and wrap up on Wednesday with a Q & A session						International Ballroom North & South/Second Floor	
10:15am-10:30am	BREAK						Salon B, C, D/Lower Level	
10:15am-12:00pm	REGISTRATION AND BADGE PICK-UP						8th Street North and South/Lobby Level	
10:30am-12:00pm	AMUGEXPO AND SPONSOR DEMO						Salon B, C, D/Lower Level	
12:00pm-1:15pm	Networking Lunch						International Ballroom North & South (Second Level)	
	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Waldorf Third Floor	Astoria Third Floor	Lake Ontario Eighth Floor	Lake Michigan Eighth Floor	Lake Huron Eighth Floor
1:30pm-2:00pm	AEROSPACE/DEFENSE Metal Additive Manufacturing - FAA Status Robert Grant Federal Aviation Administration (FAA) (1 hr)	SCANNING Workshop Scanning Workshop Presentation and Hands-on An Introduction to Scanning Giles Gaskell	METALS Emerging Metal AM Technology Mini-Session MODERATOR: Bob Markley (3rd Dimension Industrial 3D Printing) TECHNOLOGIES: Vader Systems, Markforged and Voxel8 (1 hr)	EDUCATION & TRAINING Panel Discussion Identifying & Solving Process Inefficiencies in AM MODERATORS: Peter Zelinski Additive Manufacturing Magazine Andre Wegner Authentise (1 hr)	BUSINESS US Patents and Trademarks Dr. Christal Sheppard United States Patent and Trademark Office (1 hr)	MEDICAL & DENTAL Digital Scanning and 3D Printing: The Future is Now for Dentistry Dr. Perry E. Jones Virginia Commonwealth University School of Dentistry (1 hr)	MATERIALS Essential Performance Considerations in UV Curable AM Materials Selection Andrew Scott Henkel	EDUCATION & TRAINING Challenges and Opportunities for Polygon Modeling Fenqiang Lin MachineWorks Ltd
2:00pm-2:30pm		® HANDS-ON SCANNING DEMOS FROM: Ansys, Creaform, GoMeasure3D, Wenzel America (1 hr)				MATERIALS Selection and Use of Adhesives and Sealants for Post Processing Andrew Scott Henkel		
2:30pm-3:00pm	BREAK							
3:00pm-3:30pm	AEROSPACE/DEFENSE Using Additive Manufacturing for Tooling Applications Donald Godfrey Honeywell Aerospace	SCANNING Workshop ® HANDS-ON SCANNING DEMOS FROM: Ansys, Creaform, GoMeasure3D, Wenzel America (1 hr)	METALS The Battle Between Laser and Electron Beam Powder Bed Fusion Platforms Adam Rivard LAI International	EDUCATION & TRAINING 3D Printing Design Variables: Managing From Materials to Testing Mike Vasquez 3Degrees (1 hr)	BUSINESS US Patents and Trademarks Dr. Christal Sheppard United States Patent and Trademark Office (1 hr)	MEDICAL & DENTAL Leveraging 3D Printing within Johnson & Johnson Supply Chain Sudhir B. Patel, Peyton Hopson Johnson & Johnson	MATERIALS Polyamide 11: The High-Performance Material of Choice for Laser Sintering Production Parts Arnaud Lemaitre ARKEMA	AM TECHNOLOGIES (NON-METAL) Panel Discussion Additive Manufacturing Support and Development with Legacy Systems Panel Discussion: SLA, SLS, and FDM (1 hr)
3:30pm-4:00pm	AUTOMOTIVE/TRANSPORTATION AM on the Road Towards Production Applications Dominik Rietzel Martin Friedrich BMW Group		METALS Pros and Cons of Hybrid Metal Additive Manufacturing Scott Kraemer PTI Engineered Plastics					MODERATOR: Andrew Allshorn (AT 3D-Squared) PANEL: Andrew Graves (Somos), Rory Jackson (RP Support Ltd), Mike Littrell (CIDEAS), Nate Schumacher (Midwest Proto- typing), Jeremy Vos (RP Support America)
4:00pm-4:30pm	AEROSPACE/DEFENSE Achieving Robust AM Production Youping Gao Aerogel Rocketdyne		METALS Integration of 3D Printing/ Additive Manufacturing (AM) Into Production Chad Sparks Methods 3D	EDUCATION & TRAINING High Volume AM: Pros and Cons of Inkjet as an Enabling Technology Neil Hopkinson Xaar		MEDICAL & DENTAL How will 3D Printing Impact Healthcare in 2017? Derek R. Mathers Worrell	MATERIALS Control and Optimization of Metal Powder for Additive Manufacturing Nate Kistler LPW Technology	
4:30pm-5:00pm	AEROSPACE/DEFENSE Analysis of Additively Manufactured Metal Lattice Structures by Linear Finite Element Analysis Christopher Box U.S. Air Force	SCANNING Workshop ® HANDS-ON SCANNING DEMOS FROM: Ansys, Creaform, GoMeasure3D, Wenzel America (1 hr)	METALS Roundtable Discussion OEM/Users Interface Panel on Metals MODERATOR: Bob Markley PANEL: 3D Systems, Arcam, Concept Laser, EOS, Renishaw, SLM Solutions, and more. (1 hr)	EDUCATION & TRAINING Workshop ® Topology Optimization for Additive Manufacturing: Opportunities and Challenges Krishnan Suresh Praveen Yadav, PhD SciArt (1 hr) PRE-REGISTER: Praveen Yadav at Praveenyadav@sciartsoft.com	BUSINESS Justification Strategy: Building the Right Strategy for Your Business Mark Barfoot University of Waterloo (1 hr)			CASTING Additive Manufacturing of Ceramic Casting Cores for Turbine Blades Johannes Homa Lithoz
5:00pm-5:30pm	AEROSPACE/DEFENSE Direct Metal Deposition of a G650 Engine Mount Fitting Mark D. Moss Jonathan Beckman Gulfstream Aerospace					EDUCATION & TRAINING Laser Sintering (LS) – Machines, Materials and Future Trends Manfred Schmid Inspire AG icams	MATERIALS Improved Sustainability and Mechanical Behavior of Filled LS-Material Soeren Griessbach GS-PRO	AM TECHNOLOGIES (NON-METALS)/ CASTING Fused Filament Forming Applications for Foundry Processes Using Permanent and Expendable Patterns Marshall Miller Flowserve Corporation

Registration -- 8th Street North and South/Lobby Level

Open 7:00am-8:00am
Open 10:15am - 12:00pm

Breakfast -- Continental A, B, C/Lobby Level

Open 7:00am-8:00am

Lunch -- International Ballroom No & So/Second Floor

12:00pm - 1:15pm












AMUGexpo and Technical Competition/Lower Level

6:00pm - 10:00pm

Conference Key

- Ⓢ Customer Only Session
- Ⓡ Pre-Registration Required
- Ⓢ Hands-On Session

Monday, March 20, 2017
DIAMOND SESSIONS

										
4C (4th Floor) D8 (Lower Level)	4J (4th Floor) D11 (Lower Level)	4K (4th Floor) D2 (Lower Level)	4E (4th Floor) D7 (Lower Level)	4R (4th Floor) D3 (Lower Level)	4L (4th Floor) D10 (Lower Level)	4Q (4th Floor) D5 (Lower Level)	4H (4th Floor) D1 (Lower Level)	4I (4th Floor) D6 (Lower Level)	4F (4th Floor) D9 (Lower Level)	4M (4th Floor) D4 (Lower Level)
Room: 4C (4th Floor) Beyond Figure 4: The How and Why of Digital Molding Scott Turner 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Reinforced PA6 Formulations for Powder Bed Fusion with Properties of Engineering Plastics Claus Gabriel BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Transfer of Urethane Casting to CLIP Steve Grundahl Nate Schumacher Midwest Prototyping	Room: 4E (4th Floor) Factory of the Future: Industry 4.0 Donnie Vanelli, EOS Hakan Pfeiffer, AM Ventures Room: D7 (Lower Level) DEMO SUITE OPEN	Room: 4R (4th Floor) Considerations for Binder Jetting Gabe Doman ExOne Room: D3 (Lower Level) Early Binder Jet S420SS Results with CT Analysis Larry Bronisz Los Alamos National Lab	Room: 4L (4th Floor) What's new at Concept Laser TBA Concept Laser	Room: 4Q (4th Floor) A Look Under the Hood of the HP Jet Fusion 3D Printer Josep Giralt Carmen Blasco HP 3D Printing Room: D5 (Lower Level) DEMO SUITE OPEN	Room: D1 (Lower Level) Renishaw AM systems overview Robin Weston Renishaw	Room: D6 (Lower Level) The Role of Additive Manufacturing in the Future of Transportation Kevin Czingir Divergent 3D	Room: 4F (4th Floor) Break out of the Traditional Mold - Speed up Production Using 3D Printing Brigitte Jacobs Somos® Room: 4F (4th Floor) Revolutionizing Investment Casting with 3D Printing Kevin Zaras Somos®	Room: 4M (4th Floor) Accelerate Adoption of 3D Printing for Sales Growth & Profitability Phil Reeves Stratasys Room: D4 (Lower Level) Smarter Prototyping with Stratasys New FDM Platform Kathy Hanson Stratasys
2:30pm-3:00pm BREAK										
Room: 4C (4th Floor) Better Metals: Improved Solutions from Software to Materials Jonas Van Vaerenbergh Roy Sterenthal 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Advanced Thermal Control and High Temperature Material Sintering Xu Xiaoshu Don Xu Farsoon Technologies DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Industrial Production Applications Using CLIP Brittany Hancock Caterpillar	Room: 4E (4th Floor) Transforming Your Business with High Temperature Additive Manufacturing Stephanie Kochbeck Donnie Vanelli EOS Room: D7 (Lower Level) DEMO SUITE OPEN	Room: D3 (Lower Level) Binder Jetting Complements Small Business Ed Strange Wicked Grips Tom Pasterik ExOne	Room: 4L (4th Floor) Share your Experience: Barriers to Additive Production Adoption Laurence Vigant- Langlois, PhD GE Additive	Room: 4Q (4th Floor) HP Materials Open Platform: Accelerating 3D Materials Innovation Mariona Company Fabio Annunziata HP 3D Printing Room: D5 (Lower Level) DEMO SUITE OPEN	Room: D1 (Lower Level) Renishaw product software demos: QuantAM and ADEPT for industrial and medical build file and part preparation Jon Forster Matt Parkes Renishaw	Room: D6 (Lower Level) Metal AM in Production: The M is for Manufacturing John Barnes Arconic	Room: 4F (4th Floor) Get the Most out of Your Stereolithography Equipment John Schaefer Somos® Room: 4F (4th Floor) Finding the Right Material for Your Project Clive Coady Somos®	Room: 4M (4th Floor) When Does it Make Sense to Use 3D Printing vs. CNC? Mark Bashor Stratasys Room: D4 (Lower Level) Unlocking Software Potential with GrabCAD Print Marc DiGregorio GrabCAD
			Room: 4E (4th Floor) US Air Force Additive Manufacturing Strategic Implementation Plan Brian Stitt University of Dayton Research Institute Room: D7 (Lower Level) DEMO SUITE OPEN						Room: 4F (4th Floor) Is SLA a Dinosaur? This DINO Says it's Alive and Well Andrew Graves Somos®	
Room: 4C (4th Floor) Manufacturing Innovation with Chuck Hull Chuck Hull 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) How to Foster Open Business Models Dirk Simon BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Moving from Prototyping into Production with CLIP Mark Horner Greg Cebular The Technology House		Room: D3 (Lower Level) Additive Manufacturing Applied to Sikorsky Products Bill Harris Sikorsky	Room: 4L (4th Floor) What's new at GE Businesses (Aviation, Healthcare, Transportation) Andy Martin GE Aviation Steve Abitz GE Healthcare Stephen Prichard GE Transportation	Room: 4Q (4th Floor) 3D Printing Cost and Business Implica- tions Across Product Life Cycle in HP Virginia Palacios Elena Laso HP 3D Printing Room: D5 (Lower Level) DEMO SUITE OPEN	Room: D1 (Lower Level) OPEN DEMO Demo room open to all for hardware and software demos	Room: D6 (Lower Level) The New Art of Data Preparation from CAD to Part: Accurate, User Friendly, Smart and Traceable Hubert Kerschbaum Wolfgang Hoeller SLM Solutions Software GmbH	Room: 4F (4th Floor) Parts That Stand the Test of Time - A look into Aging Properties of SLA Materials Kevin Zaras Somos®	Room: 4M (4th Floor) What's New with Stratasys Materials Ken Burns Stratasys Room: D4 (Lower Level) DEMO AREA OPEN

please consult the AMUG 2017 mobile app for abstracts, and session/speaker updates

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Registration -- 8th Street North and South/Lobby Level

Open 7:00am-8:00am
Open 10:15am - 12:00pm

Breakfast -- Continental A, B, C/Lobby Level

7:00am - 8:00am

Lunch -- International Ballroom No & So/Second Floor

12:00pm-1:15pm

2017 AMUG Awards Banquet

Location is a surprise - must wear AMUG Badge












Buses leave at 5:15-5:30

Conference Key

- Ⓢ Customer Only Session
- Ⓡ Pre-Registration Required
- Ⓢ Hands-On Session

Tuesday, March 21, 2017

DIAMOND SESSIONS

 3D SYSTEMS	 BASF We create chemistry	 Carbon	 EOS e-Manufacturing Solutions	 ExOne™ DIGITAL PART MANUFACTURING			 RENISHAW apply innovation™	 SLM SOLUTIONS	 Somos®	 stratasys
4C (4th Floor) D8 (Lower Level)	4J (4th Floor) D11 (Lower Level)	4K (4th Floor) D2 (Lower Level)	4E (4th Floor) D7 (Lower Level)	4R (4th Floor) D3 (Lower Level)	4L (4th Floor) D10 (Lower Level)	4Q (4th Floor) D5 (Lower Level)	4H (4th Floor) D1 (Lower Level)	4I (4th Floor) D6 (Lower Level)	4F (4th Floor) D9 (Lower Level)	4M (4th Floor) D4 (Lower Level)
Room: 4C (4th Floor) Beyond Figure 4: The How and Why of Digital Molding Scott Turner 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Design Contest - How to Use BASF Materials for Functional Parts Todd Grimm T.A. Grimm & Associates DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Exploring Novel Geometries and Materials with CLIP Larry Monahan Becton, Dickinson and Company	Room: 4E (4th Floor) A High Performance Material for Aerospace Applications Scott Killian EOS Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) Binder Jetting in Medical Applications Kuldeep Argawal Minnesota State University	Room: 4L (4th Floor) EH&S BMP for Metals - Powder Manufacturing and DMLM, TBA - Metal Additive Manufacturing Safety, SLM - Metals Exposure Risk and Mitigation Measures, GE - Q&A	Room: 4Q (4th Floor) Design for Manufacturing Enabling Production with HP Multi Jet Fusion Christian Eviston-Putsch HP 3D Printing Room: D5 (Lower Level) HP 3D Jet Fusion: Applications	Room: D1 (Lower Level) Architected Materials through AM Sarat Babu Betatype	Room: D6 (Lower Level) Experiences, Results and Lessons Learned Processing Multiple Materials for Tooling Applications Derek Morin Y-12 National Security Complex	Room: 4F (4th Floor) Are Your Thoughts on SLA Outdated? Learn How SLA Stacks up to SLS and FDM Tiffany Vincent Somos®	Room: 4M (4th Floor) How New Stratasys Technology Speeds Product Design Success Jesse Hahne Marc McCauley Center for Advanced Design
11:00am-11:30am			Room: 4E (4th Floor) Accelerating the Adoption of 3D Printing in Manufacturing and Supply Chain David Dreyer SAP America Maximillian Eils EOS (a hr) Room: D7 (Lower Level) DEMO SUITE OPEN	Room: 4R (4th Floor) Considerations for Binder Jetting Gabe Doman ExOne D3 (Lower Level) Process Parameter Development for Binder Jetting AM Green Part Printing: Thoughts and Tips Li Yang UoFL	Steven Barwin, PE., SLM Solutions Srinivas Durgam GE Global Research Concept Laser EOS	Room: 4Q (4th Floor) HP Jet Fusion 3D Printer – Digital Workflows and Job Creation Scott White HP 3D Printing Room: D5 (Lower Level) Accelerating Materials Innovation: HP Materials Development Kit (MDK) and Applications Lab Mike Reagan Mike Monroe HP 3D Printing	Room: D1 (Lower Level) Advantages behind using pulse laser powder bed AM for advanced materials Mathieu Brochu McGill University	Room: D6 (Lower Level) Metal Additive Manufacturing for Racing Applications Jon Cohen Mimo Technik	Room: 4F (4th Floor) What's the Best 3D Printing Technology for me? A Look at the Machines, Software and Material Combinations Andrew Graves Somos®	Room: 4M (4th Floor) Demonstration of FDM for Production Composite Tooling at Dassault Falcon Jet Bastien Carel Gregory Hilbert Dassault Falcon Jet

12:00pm-1:15pm **Networking Lunch** International Ballroom North & South/Second Floor

ALL ROOMS CLOSED
See AMUG Agenda for Diamond Sessions

all sessions close

Buses leave promptly at 5:30pm

AMUG Awards Banquet Must wear your AMUG Badge to board the bus. We suggest you wear closed-toe shoes and comfortable clothing.

BUS LOCATION HILTON CHICAGO: 8th Street North and South Lobby Level (next to AMUG registration)

BUS LOCATION PALMER HOUSE: Wabash Street entrance in the east side of the Palmer House hotel

Wednesday, March 22, 2017

please consult the AMUG 2017 mobile app for abstracts, and session/speaker updates

8:30am-9:00am	GLOBAL INSIGHTS ON AM GRAHAM TROMANS AND STEFAN RITT AMUG EU Ambassadors								International Ballroom North & South/Second Floor			
9:00am-10:00am	INNOVATORS SHOWCASE WITH CARL DECKARD, INVENTOR OF SELECTIVE LASER SINTERING								International Ballroom North & South/Second Floor			
10:00am-10:30am	BREAK								Continental A, B, C/Lobby Level			
10:30am-11:00am	KEYNOTE Q&A: JASON LOPES Legacy Effects								Continental A, B, C/Lobby Level			
11:00am-12:00pm	AMUG BUSINESS MEETING								Continental A, B, C/Lobby Level			
12:00pm-1:15pm	NETWORKING LUNCH								International Ballroom North & South/Second Floor			
	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Waldorf Third Floor	Astoria Third Floor	Marquette Room Third Floor	Joliet Room Third Floor	Lake Ontario Eighth Floor	Lake Michigan Eighth Floor	Lake Huron Eighth Floor	Lake Erie Eighth Floor	
1:30pm-2:00pm	AUTOMOTIVE/ TRANSPORTATION Development of Processing Parameters for DMLS - Insights and Guidance Eric Johnson John Deere	EDUCATION & TRAINING Workplace-Based AM Lab: Enhancing Technical Skillsets and Interdisciplinary Collaboration Jonathan Hopkins NAVSEA Carderock Division	METALS Metal AM Process & Facility Safety. Are you Prepared? Paul Bates, Norm Lowe UL (1 hr)	Platinum Autodesk Temperature and Distortion Simulation for Laser Powder Bed Fusion Erik Denlinger Autodesk	Platinum Rize Tailored Additive Manufacturing for Challenging Environments Frank Marangell Rize	Platinum EnvisionTEC 3D Printing Brings Gaming to Life Adam Poots Adam Poots Games	Platinum Materialise Optimize your Metal Production with Dedicated Data Preparation, Inspection and Simulation Gert Claes Materialise	MEDICAL & DENTAL Metal Additive Manufacturing for Medical Applications Alan Rattan Precision ADM	MATERIALS Testing and Modeling Anisotropy of Additively Manufactured Polymers Mark Oliver Veryst Engineering	EDUCATION & TRAINING Software Training Designing in SOLIDWORKS for 3D Printing Judy Marlo Mark Abshire Computer Aided Technology Inc. (90 min)	CASTING Improving 3D Sand Mold Printing Processes Through Casting Process Optimization Software Tools Christof Heisser MAGMA Foundry Technologies, Inc.	
2:00pm-2:30pm												
2:30pm-3:00pm	AEROSPACE/DEFENSE Qualification Strategies for Additive Manufacturing Tyler Conrad Tyler Whetstone Honeywell Federal Manufacturing and Technology	EDUCATION & TRAINING Advances in AM to Ease the Post Hype Dip Kenneth Church nScript, Inc	METALS Transitioning from Plastics Job Shop to Metals Production Shop Phillip Conner Stratays Direct Manufacturing	Platinum Arcam Navigating FDA Approval for Orthopedic Implants with Additive Manufacturing Oscar Hedin Arcam	Platinum BigRep Panel Printing with Pellet Extruders and High-Performance Materials Rene Gurka BigRep GmbH Daniel Büning NOWlab@BigRep GmbH	Platinum Union Tech Benchmarking the Capabilities of Stereolithography Equipment Jeremy Vos RP Sales America, Inc.	Platinum Ultimaker Desktop 3D Printing Hits the Enterprise for Prototyping, Tooling, Production John Dulchinos Jabil, Inc. John Kawola Ultimaker	MEDICAL & DENTAL Electron Beam Melting for Production of Orthopaedic Implants Michele Pressacco LimaCorporate	MATERIALS Impact of 3D Printing on Part Performance Tom Fabian UL		CASTING Investment Cast Patterns using Application-Specific SLA Resin Dave Hockemeyer PERIDOT, Inc.	
3:00pm-3:30pm	BREAK											
3:30pm-4:00pm	AEROSPACE/DEFENSE AM Applications at the Naval Surface Warfare Center - Philadelphia Division Scott Storms Phil Greiner NSWCPD	EDUCATION & TRAINING Workshop There was Shrinkage! Are you Compensating? Andrew Graves Somos® (1 hr)	METALS How to Win by Failing Fast in Metal AM Bob Henderson Linear AMS	Platinum Concept Laser CL WRX Parameter: Not Your Average Parameter Editor Thomas Haymond Concept Laser ® PRE-REGISTRER: k.geiger@conceptlaserinc.com	Platinum Formlabs What's Next for 3D Printing in Material Innovation David Lakatos Formlabs	Platinum CATI Leveraging 3D Technology in the Product Development Lifecycle - Part 2: 3D CAD to 3D Print Derek Ellis Bob Renella CATI	Platinum Prodways Industrial Plastic Laser Sintering Made Accessible with ProMaker P1000 Luca Veneri Prodways	MEDICAL & DENTAL Exploring the Technologies Transforming Orthopaedics Lewis Mullen Stryker	MATERIALS High-Performance Materials for 3D Printing Rahul Kasat E I DuPont and Company	EDUCATION & TRAINING Software Training Materialise Magics 21 Update Training Evan Kirby Materialise (90 min)	CASTING Case Study of Additive Pattern Manufacture For Foundry Use David Weiss, Eck Industries, Inc.	
4:00pm-4:30pm			METALS Panel Discussion									
4:30pm-5:00pm	AEROSPACE/DEFENSE A Combined Numerical-Experimental Technique to Evaluate Powder Thermal Properties in SLM Kevin Chou University of Louisville	EDUCATION & TRAINING Effective UV Curing Paul Hagan Christie Digital Systems	METALS Closed Loop Systems for Metal Powder Bed Fusion Shane Collins CalRAM Distinguished panel to discuss the need for closed loop systems, process monitoring and feedback control for metal powder bed fusion systems. (1 hr)	Platinum XJet XJet presents: NanoParticle Jetting technology- Redefining Metal AM Dror Danaï XJet	Platinum 3D Platform Roadmap to Address 10x Print Time Reduction Joe Binkla 3D Platform	EDUCATION & TRAINING Surface Texture Anatomy of AM Components: the Art of Surface Superfinishing Agustin Diaz REM Surface Engineering Cesar Terrazas, Ph.D. The University of Texas at El Paso Richard Merlino Addaero Manufacturing (45 min)	Platinum PostProcess Tech. From PolyJet to FDM to Metals, Integrating Automated & Comprehensive Post-Printing Solutions John Oney PostProcess Technologies		AM TECHNOLOGIES (NON-METAL) Small Filigree, Perfectly Fitting Parts Joerg Griessbach Peter Griessbach The SL PRO	CASTING Beyond Prototyping: How the Use of Printed Patterns in Investment Casting will Change over the Next Decade Tom Mueller Mueller Additive Manufacturing Solutions		

Breakfast -- Continental A, B, C/Lobby Level

Open 7:30am-8:30am

AMUG Business Meeting

For all AMUG conference attendees

11:00am - 12:00pm

Lunch -- International Ballroom No & So/Second Floor

12:00pm-1:15pm

Dinner in Chicago -- Grand Ballroom/Second Floor

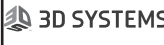










Take your taste buds on a culinary tour of the Chicago neighborhoods

6:00pm-10:00pm

Conference Key

- Ⓢ Customer Only Session
- Ⓡ Pre-Registration Required
- Ⓢ Hands-On Session

Wednesday, March 22, 2017
DIAMOND SESSIONS

											
4C (4th Floor) D8 (Lower Level)	4J (4th Floor) D11 (Lower Level)	4K (4th Floor) D2 (Lower Level)	4E (4th Floor) D7 (Lower Level)	4R (4th Floor) D3 (Lower Level)	4L (4th Floor) D10 (Lower Level)	4Q (4th Floor) D5 (Lower Level)	4H (4th Floor) D1 (Lower Level)	4I (4th Floor) D6 (Lower Level)	4F (4th Floor) D9 (Lower Level)	4M (4th Floor) D4 (Lower Level)	
Room: 4C (4th Floor) Beyond Figure 4: The How and Why of Digital Molding <i>Scott Turner</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) BASF 3D-P Business Approach and Launch <i>Kara Noack</i> <i>Dirk Simon</i> BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Carbon as a Solution for Manufacturing <i>Kirk Phelps</i> Carbon	Room: 4E (4th Floor) EOS Expands Polymer Portfolio <i>Rich Booth</i> EOS Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) Washout Tooling Demo and Q/A Session <i>Jesse Blacker</i> ExOne (1 hr)	Room: 4L (4th Floor) EH&S BMP and Product Safety for Polymer - Green chemistry - Autodesk, Designing Greener and Safer 3d Printing Materials - Emission study - Q&A <i>Srinivas Durgam</i> GE <i>Julia Cabral</i> Autodesk UL, EOS	Room: D5 (Lower Level) HP Jet Fusion 3D Processing Station- Material Preparation and Multi-Material Support <i>Xavier Alonso</i> <i>Ismael Chancón</i> HP 3D Printing	Room: D1 (Lower Level) Renishaw Solutions Centers - N America and the Global Network <i>Dan Skulan</i> Renishaw	Room: D6 (Lower Level) Ⓢ SLM Solutions Users Group CLOSED SESSION FOR SLM CUSTOMERS <i>Richard Grylls</i> SLM Solutions	Room: 4F (4th Floor) The Foundry of the Future - 3D Printing for Investment Casting <i>Kevin Zaras</i> Somos®	Room: 4M (4th Floor) AM at Caterpillar: Balancing In-House vs. External Sourcing <i>Eric Halla</i> Caterpillar Room: D4 (Lower Level) Ⓡ Troubleshooting PolyJet: Machine Maintenance, Materials & Applications <i>Meghan Rock</i> Stratasys	
2:00pm-2:30pm			Room: 4E (4th Floor) Process Monitoring: Helping Achieve Reliability and Repeatability <i>Jon Spragg</i> EOS (1 hr) Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) Low Cost Additive Manufactured Washout Tooling <i>Jeremy Senne</i> San Diego Composites				Room: D6 (Lower Level) Ⓢ SLM Solutions Users Group CLOSED SESSION FOR SLM CUSTOMERS <i>Richard Grylls</i> SLM Solutions			
Room: 4C (4th Floor) In-House Productivity with MJP and CJP: Powerful Solutions to Advance Your Workflow <i>Derek Johnson</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Collaboration Between Materials and Equipment Suppliers to Accel- erate 3D-Printing Innovation <i>Fabio Annunziata</i> HP 3D Printing <i>Kara Noack</i> BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) CLIP Technology + Tailored Materials Enable Production of Customized Medical Devices <i>Elle Meyer</i> Carbon			Room: 4Q (4th Floor) 3D Printing Legal Con- siderations for the Next Industrial Revolution <i>Jennifer Prioleau</i> HP Inc Room: D5 (Lower Level) HP Jet Fusion 3D Pro- cessing Station - Fast Cooling and Unpacking <i>Xavier Alonso, Justin Roman</i> HP 3D Printing	Room: D1 (Lower Level) The Effect of Laser Power on Part Strength in 316L Stainless Steel <i>Brian Slocum</i> Lehigh University	Room: 4F (4th Floor) Increase the effi- ciency of your Rapid Tooling project using 3D Printing <i>Brigitte Jacobs</i> Somos®		Room: 4M (4th Floor) Laser Sintering & FDM: Complimentary Technologies <i>Jesse Marin</i> Stratasys Direct Manufacturing Room: D4 (Lower Level) Ⓢ Ⓢ Ⓢ Hands-On: PolyJet Print Head Maintenance <i>Meghan Rock</i> Stratasys		
3:00pm-3:30pm BREAK											
Room: 4C (4th Floor) 3DXpert: An All- in-One Solution for Metal Additive Manufacturing <i>Maoz Barkai</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Material Properties of FFF Printed Stainless Steel Tools <i>Kai Sudau</i> BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Multiple Parts for Low Volume Production <i>Phil DeSimone</i> <i>Kai Moore</i> Carbon	Room: 4E (4th Floor) The Challenges of Design and Manufacturing for Space <i>Ivan Madera</i> Morf3D (1 hr) Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) Ⓢ ExOne Users Group CLOSED SESSION FOR EXONE CUSTOMERS	Room: 4L (4th Floor) GE Additive Digital Thread <i>Jon Wood</i> GE Additive	Room: 4Q (4th Floor) HP Jet Fusion 3D Printer - Thermal Control for Optimal Mechanical Properties <i>Josep Giralt</i> HP 3D Printing Room: D5 (Lower Level) HP 3D Jet Fusion: Applications	Room: D1 (Lower Level) Investigating the Effects on Titanium Powder when Processing in an Oxygen-free Atmosphere <i>Marc Saunders</i> <i>Lucy Grainger</i> Renishaw	Room: D6 (Lower Level) Ⓢ SLM Solutions Users Group CLOSED SESSION FOR SLM CUSTOMERS <i>Richard Grylls</i> SLM Solutions	Room: 4F (4th Floor) Townhall: What do you Need? Tell us in a townhall presentation about what you're looking for. <i>Jasper van Dienen-Blom</i> Somos®	Room: 4M (4th Floor) Laser Simulation-Driven Design and 3D Printing with SIMULIA <i>Subham Sett, Dassault</i> (45 mins) Room: D4 (Lower Level) Ⓢ Ⓢ Considerations in Designing for FDM Jigs & Fixtures (15 mins) Followed by Hands-On Finishing Techniques for FDM Jigs & Fixtures (1 hr) <i>Mark Bashor</i> Stratasys	
4:00pm-4:30pm			Room: 4E (4th Floor) EOS Solutions for Metal: M 100, M 400, EOS M 400-4 <i>Tyson Gregory</i> <i>Jon Spragg</i> EOS (1 hr) Room: D7 (Lower Level) DEMO SUITE OPEN								
Room: 4C (4th Floor) Advancements in Aerospace: Taking Off with 3D Production <i>David Cullen</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Simulation of Metal Part Properties and Process Parameters for Advanced Functionalities <i>Sebastian Schillo</i> <i>Felix Volkmann</i> BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Vision: Factory of the Future <i>Kirk Phelps</i> Carbon		Room: 4L (4th Floor) Additive Materials <i>Travis Sands</i> <i>Deb Whittis</i> GE Additive	Room: 4Q (4th Floor) HP Multi Jet Fusion - Quality Assurance Procedures <i>Alexis Oriol</i> HP 3D Printing Room: D5 (Lower Level) HP 3D Jet Fusion: Applications	Room: D1 (Lower Level) Metal AM Value Proposition for the Medical Industry <i>Matt Parkes</i> Renishaw	Room: 4F (4th Floor) Who says SLA is Just for Prototypes? See How SLA is Used in Direct Manufacturing <i>Holly Gregory</i> Somos®	Room: 4M (4th Floor) Study of Inconel 625 Powder Reuse and the Effect on Additive Tensile Properties (Advanced) <i>Andrew Carter</i> Stratasys Direct Manufacturing Room: D4 (Lower Level) continued session from 3:30pm			

Thursday, March 23, 2017

please consult the AMUG 2017 mobile app for abstracts, and session/speaker updates

8:30am-9:00am	AMUG FEEDBACK SESSION							International Ballroom North & South/Second Floor		
9:00am-10:00am	KEYNOTE ADDRESS: DR. PETER LIACOURAS, PH. D. Walter Reed National Military Medical Center 3D Printing in Military Medicine: Transforming the Care of Our Servicemembers							International Ballroom North & South/Second Floor		
10:00am-10:30am	BREAK							Grand Ballroom/Second Floor		
	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Waldorf Third Floor	Marquette Room Third Floor	Joliet Room Third Floor	Lake Ontario Eighth Floor	Lake Michigan Eighth Floor	Lake Huron Eighth Floor	Lake Erie Eighth Floor
10:30am-11:00am	AEROSPACE/DEFENSE Aerospace Additive Manufacturing in the DOD Supply Chain, Challenges & Opportunities Douglas Greenwood, PE NAVAIR Fleet Readiness Center East Kyle Hedrick, PE DLA	EDUCATION & TRAINING Roundtable Discussion ASTM Standards Update and Discussion Carl Dekker MET-L-FLO	METALS Introduction to Design for Metal AM Spencer Wright nTopology	Platinum XJet XJet presents: NanoParticle Jetting technology–Redefining Metal AM Dror Danai XJet	Platinum 3D Platform Fused Filament Masters for Castings and Molds Mark Huebner 3D Platform	Platinum Formlabs How 3D Printing creates opportunities for Healthcare David Lakatos Formlabs	EDUCATION & TRAINING Workshop How Simulation Helps you Build Metal Parts Successfully Brent Stucher 3DSIM Tim Gornet University of Louisville (90 min)	MATERIALS Panel Discussion Material Overview and Panel Discussion with OEMS MODERATOR: Richard Smeenk	AM TECHNOLOGIES (NON-METAL) Agile Quality Control Process for FDM Parts Tim Yewchuk 3D Print Western	CASTING Casting Optimization Through Additive Manufacturing Steve Murray Hoosier Pattern
11:00am-11:30am		EDUCATION & TRAINING Post Processing – The Untold Story Regarding Industrial Resin Based 3D Printing Edward T. Graham ProtoCAM (1 hr)								
11:30am-12:00pm	AEROSPACE/DEFENSE Beyond Earth - Using Additive Manufacturing to Take us to New Worlds Mike Curtis-Rouse Science and Technology Facilities Council		METALS How to Develop a Pedigreed Material Property and Process Parameter Data Set Annie Wang Senvol	Platinum CATI Leveraging 3D Technology in the Product Development Lifecycle - Part 3: 3D Printing Injection Molds Derek Ellis, Bob Renella, CATI	Platinum Prodways New Plastic Laser Sintering Materials for Innovative Applications Luca Veneri Prodways	Platinum Union Tech Innovating Business Model Concepts for Additive Manufacturing Growth Jim Reitz UnionTech			AM TECHNOLOGIES (NON-METAL) Additively Manufactured Plastic Injection Mold Inserts Jeremy Pullin Sartorius Stedim	CASTING Simulation Driven Castings: Bringing Manufacturing Feasibility Early in the Design Cycle Ravi Kunju Shaun Kroeger solidThinking
12:00pm-1:15pm	Networking Lunch Location: Grand Ballroom/Second Floor									
1:30pm-2:00pm	AEROSPACE/DEFENSE Production with Metal AM Learning the Hard Way Richard J. Merlino Addaero Manufacturing	EDUCATION & TRAINING Panel Discussion Post Processing (AM Metals and Nonmetals) MODERATOR: Jordan Weston (Milwaukee School of Engineering) PANEL: Steve Alvti (Bel-Air Finishing), Laurent Cataldo (MicroTek Finishing), Andrew Allshorn (AT 3D-SQUARED), Andrew Graves (Somos), Shannon Morgan (GoEngineer), Daniel Hutchinson (PostProcess Technologies)	METALS DED of Inconel 718 and the Impact of Powder Quality Aaron LaLonde BeAM Machines, Inc.	Platinum Concept Laser Quality Assurance: Is Data From In-situ Monitoring Similar to a CT Scan? Pavlo Earle Sintavia	Platinum Autodesk Machine, Material, and Software Strategies for Additive Manufacturing Duann Scott Autodesk	Platinum BigRep Room Temperature Printing for Industrial Parts Daniel Büning NOWlab@BigRep GmbH	EDUCATION & TRAINING What Will be the Impact of Fast Build Photopolymer Printers on Secondary Processing (and vice versa)? Sean Wise ReplifForm	MATERIALS Enhanced Isotropy for FFF Printed Parts with Locally Induced Radio Frequency Welding Blake Teipel, PhD Essemtium Materials	EDUCATION & TRAINING Software Training How to Predict the Structural Behavior of Selective Laser Sintered Parts with Multiscale Numerical Simulation? Dustin Souza MSC Software	CASTING BAAM - Big Area Additive Manufacturing for Tooling and Patterns Rick Neff Cincinnati Incorporated
2:00pm-2:30pm									EDUCATION & TRAINING Software Training	
2:30pm-3:00pm	AEROSPACE/DEFENSE Predictive Simulation to Accelerate the Adoption of Additive Manufacturing in Aerospace Applications Chris Robinson 3DSIM		METALS Michelin Success: Extended Performances of Tires Thanks to Metal AM Maria Averyanova Fives Michelin Additive Solutions (AddUp)	Platinum Arcam Important Considerations for Selecting Powder for Additive Manufacturing Frédéric Marion AP&C	Platinum Materialise Automate Your AM Workflow and Save Data Preparation Time Dave Flynn Materialise	Platinum EnvisionTEC The Future of Bioprinting Materials Northwestern University Shah Lab	AM TECHNOLOGIES (NON-METAL) Quality and Inspection or Research James LaFleur 3D Print Western	MATERIALS The Value Chain From Metal Powder Production Through Serial Part Prototyping and Manufacturing Sean Layman Hoegaanes Corporation	Netfabb 2017: End-to-End AM Workflows Edgar Aguirre Autodesk (1 hr)	CASTING Investment Casting The Original METAL Additive Manufacturing Jack Ziemba Aristo Cast
3:00pm-3:30pm	BREAK									
3:30pm-4:00pm	AEROSPACE/DEFENSE Additive Manufacturing R&D at AFRL Jennifer Chase Fielding, PhD Airforce Research Laboratory	BUSINESS Panel Discussion The Changing Landscape of Additive Manufacturing PANEL DISCUSSION: Women in AM and the Changing Landscape	METALS Optimizing, Testing and Fabricating a Low Pressure Turbine Bracket by Additive Manufacturing Doug Hedges Sintavia	Platinum Rize 3D Printing: The Impact of Post-Processing Frank Marangell Rize	Platinum PostProcess Tech. Automation of Post-Processing Through Energy Optimization Daniel Hutchinson PostProcess Technologies	Platinum Ultimaker Desktop 3D Printing Hits the Enterprise for Prototyping, Tooling, Production John Dulchinos Jabil, Inc. John Kawola Ultimaker	AM TECHNOLOGIES (NON-METAL) The Opportunity with Direct Digital Manufacturing Rich Stump Fathom	MATERIALS Block Copolymers Assembly for 3D Printing William Wolf Sartomer		CASTING 3D Printed Cored Patterns for Low Volume Production – Success Stories Mike Hascher Eagle Engineered Solutions Inc.
4:00pm-4:30pm										
4:30pm-5:00pm			METALS Advancements in Metal Additive Manufacturing in Germany – Costs and Lead Times Albert Klein FIT AG					MATERIALS Big, Fast Low Cost Models Using PMMA Aaron Howard Voxeljet		CASTING 3D Printed Patterns for the Direct Casting of Monumental Sculpture Rob Arps Form 3D Foundry

Breakfast -- Continental A, B, C (Lobby Level)

Open 7:30am-8:30am

Lunch -- Grand Ballroom No & So/Second Floor

12:00pm-1:15pm

Conference Key

- Ⓢ Customer Only Session
- Ⓡ Pre-Registration Required
- Ⓢ Hands-On Session

Thursday, March 23, 2017
DIAMOND SESSIONS
Family Dinner/Closing Dinner -- Grand Ballroom/Second Floor

Enjoy family recipes at AMUG closing dinner

6:00pm-10:00pm

3D SYSTEMS	BASF We create chemistry	Carbon	EOS e-Manufacturing Solutions	ExOne DIGITAL PART MANUFACTURING	GE	hp	RENISHAW apply innovation™	SLM SOLUTIONS	Somos®	stratasys
4C (4th Floor) D8 (Lower Level)	4J (4th Floor) D11 (Lower Level)	4K (4th Floor) D2 (Lower Level)	4E (4th Floor) D7 (Lower Level)	4R (4th Floor) D3 (Lower Level)	4L (4th Floor) D10 (Lower Level)	4Q (4th Floor) D5 (Lower Level)	4H (4th Floor) D1 (Lower Level)	4I (4th Floor) D6 (Lower Level)	4F (4th Floor) D9 (Lower Level)	4M (4th Floor) D4 (Lower Level)
Room: 4C (4th Floor) Beyond Figure 4: The How and Why of Digital Molding <i>Scott Turner</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Development Process of 3D Laser Sintered PA6 Parts Accounting for Anisotropic Mechanical Properties <i>Andreas Wüst</i> BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) CLIP Accuracy Overview <i>Stephanie Moran</i> Carbon	Room: 4E (4th Floor) Open Editing of EOS Systems with Parameter Editor <i>Jon Spragg</i> EOS Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) Prequalification of Printed Sand Mold Technology for HY Steel Castings in the US Navy <i>Ken Sabo</i> Concurrent Technologies Corporation	Room: 4L (4th Floor) GE Digital Thread <i>Jon Wood</i> GE Additive	Room: 4Q (4th Floor) HP 3D Printing – Connected Printer <i>Josep Giralt</i> HP 3D Printing Room: D5 (Lower Level) Room Closed - Private Event	Room: D1 (Lower Level) Metallurgy of additively manufactured parts <i>Lucy Grainger</i> Renishaw	Room: D6 (Lower Level) Hands on with the SLM 280 2.0 <i>Richard Grylls</i> SLM Solutions NA	Room: 4F (4th Floor) Endless Possibilities of Somos® EvoLve 128	Room: 4M (4th Floor) Additive Manufacturing in an Aerospace Sand Foundry <i>John Barnett</i> CPP Minneapolis Room: D4 (Lower Level) ⓇⓈ Hands-On Workshop: PolyJet Post Processing for Clear Parts <i>Charles Evans</i> Stratasys (1 hr)
11:00am-11:30am										
Room: 4C (4th Floor) Better Metals: Improved Solutions from Software to Materials <i>Sandeep Rana</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Enhanced FFF Isotropy with RF Welding – Highlight Prosthetics, Orthotics <i>Blake Teipel</i> Essentium Materials <i>Kara Noack</i> BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Going in Depth with Carbon's Production Materials <i>Jason Rolland</i> Carbon	Room: 4E (4th Floor) Lattice Structures and Repeatable Quality <i>Jon Spragg</i> EOS Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) An Economic Analysis of Powder Bed Technologies <i>Philip Morton</i> UTEP	Room: 4L (4th Floor) Using additive on the Advanced Turbo Prop Engine <i>Josh Mook</i> GE Additive	Room: 4Q (4th Floor) Voxel-scale Materials Development using HP's Multi Jet Fusion 3D Printing technology <i>James Stasiak</i> HP 3D Printing Room: D5 (Lower Level) Room Closed - Private Event	Room: D1 (Lower Level) Strategies for materials parameter development <i>Jon Forster</i> Renishaw	Room: D6 (Lower Level) ⓈⓇ First Look at SLM Build Processor 3.0 <i>Michael Hansen</i> SLM Solutions NA Register at: usersgroup@slm-solutions.us	Room: 4F (4th Floor) Driving Material Performance in SLA <i>Scott Nordlund</i> Somos®	Room: D4 (Lower Level) Hands-On Workshop continued session
12:00pm-1:15pm Networking Lunch Location: Grand Ballroom/Second Floor										
Room: 4C (4th Floor) 3D Systems Healthcare: Support from Plan to Procedure <i>Katie Weimer</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Acrylic Parts from BASF Photopolymers Designed for Customer Needs <i>Andreas Jentsch</i> - BASF DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Designing for CLIP + Production Applications <i>David Moore</i> Carbon	Room: 4E (4th Floor) Reference Point Calibration on Your Build Plate and Beyond! <i>Tyson Gregory</i> EOS Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) Binder Jet Manufacturing of Fully Dense Tungsten Heavy Metal Alloy Specimens for Medical and Military Applications <i>Kyle Myers, RP+M Mike Stawowy, HC Starck</i>	Room: 4L (4th Floor) What's new at Concept Laser <i>TBA</i> Concept Laser	Room: 4Q (4th Floor) HP Multi Jet Fusion Voxel – Embedded Electronics <i>Sterling Chaffins</i> HP 3D Printing Room: D5 (Lower Level) HP 3D Jet Fusion: Applications	Room: D1 (Lower Level) Lattice structures for improved product performance <i>Marc Saunders</i> Renishaw	Room: D6 (Lower Level) How to work out if your parts are good – a metallurgical analysis of components <i>Richard Grylls</i> SLM Solutions NA <i>Doug Hedges, Sintavia LLC</i>	Room: 4F (4th Floor) What's new in Somos®?	Room: 4M (4th Floor) Best Practices for File Prep on the Full-Color, Multi-Material Stratasys J750 <i>Charles Evans, Stratasys</i> Room: D4 (Lower Level) Ⓡ Troubleshooting FDM: Machine Maintenance, Materials and Applications <i>Meghan Rock, Stratasys</i>
2:00pm-2:30pm			Room: 4E (4th Floor) Industrial Coloring Solutions for AM Plastics <i>Phillip Kramer</i> DyeMansion (1 hr) Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) Continued Research with ExOne at the NY State College of Ceramics at Alfred University <i>David Crenshaw</i> Alfred University	Room: 4L (4th Floor) DEMO SUITE OPEN	Room: 4Q (4th Floor) HP Jet Fusion 3D Printer - Post Processing Methods <i>Aleix Oriol</i> Mercedes Blanco HP 3D Printing Room: D5 (Lower Level) HP 3D Jet Fusion: Applications	Room: D1 (Lower Level) AM Facility Management <i>Kevin Collier</i> Renishaw	Room: D6 (Lower Level) Building with Reactive Materials <i>Richard Grylls</i> SLM Solutions NA	Room: 4F (4th Floor) The latest high impact materials - Somos® Taurus	Room: D4 (Lower Level) Begins at 2:00, Open House Ⓡ Hands-On: Under the Hood on FDM 3D Printers <i>Meghan Rock, Stratasys</i> Room: 4M (4th Floor) Section 1: Basic Insight Software for New Operators <i>Mike Block, Stratasys</i>
3:00pm-3:30pm BREAK										
Room: 4C (4th Floor) High Performance Plastics in SLS <i>David Cullen</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	Room: 4J (4th Floor) Discovering Polyamide 6 Applications <i>Brian Bauman</i> Varia3D DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Carbon Material Roadmap <i>Jason Rolland</i> Carbon	Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) Considerations for Binder Jetting <i>Gabe Doman</i> ExOne	Room: 4L (4th Floor) DEMO SUITE OPEN	Room: 4Q (4th Floor) Design and Process Optimization for Multi Jet Fusion <i>David Tucker, David Woodlock</i> HP 3D Printing Room: D5 (Lower Level) HP 3D Jet Fusion: Applications	Room: D1 (Lower Level) Using Metrology for Precision Finish Machining of AM Parts <i>Marc Saunders</i> Renishaw	Room: D6 (Lower Level) Metal Additive Manufacturing Machine Safety <i>Steve Barwin</i> SLM Solutions NA	Room: 4F (4th Floor) Can you Still Use SLA Parts After a year? A Look at Material Properties Performance Over Time <i>Kevin Zaras, Somos®</i>	Room: 4M (4th Floor) ⓇⓈⓇ Section 2: Insight Software, Complex Processing of Parts, Custom Groups and More (must already know/use Insight, laptops will be provided) <i>Mike Block, Stratasys</i> (1 hr) Room: D4 (Lower Level) Ⓡ Laser Sintering Post-Processing Workshop (SPACE LIMITED TO 25, FIRST COME FIRST SERVED) <i>Jesse Marin</i> Stratasys Direct Manufacturing (90 min)
4:00pm-4:30pm										
Room: 4C (4th Floor) Digital Casting for Tool-less Metal Parts <i>Jeff Smith</i> 3D Systems Room: D8 (Lower Level) DEMO SUITE OPEN	DEMO: D11 (Lower Level) DEMO AREA OPEN	Room: 4K (4th Floor) Economics of CLIP <i>Phil DeSimone</i> Carbon	Room: D7 (Lower Level) DEMO SUITE OPEN	D3 (Lower Level) DEMO SUITE OPEN	Room: 4L (4th Floor) DEMO SUITE OPEN	Room: 4Q (4th Floor) HP Technical Services and Support : Maximizing uptime and productivity <i>Sandra Gonzalez</i> HP 3D Printing Room: D5 (Lower Level) Closed	Room: D1 (Lower Level) Additive is Not an Island <i>Robin Weston</i> Renishaw	Room: D6 (Lower Level) Hands on with the SLM 280 2.0 <i>Richard Grylls</i> SLM Solutions NA	Room: 4F (4th Floor) The Foundry of the Future - 3D Printing for Investment Casting <i>Kevin Zaras, Somos®</i>	