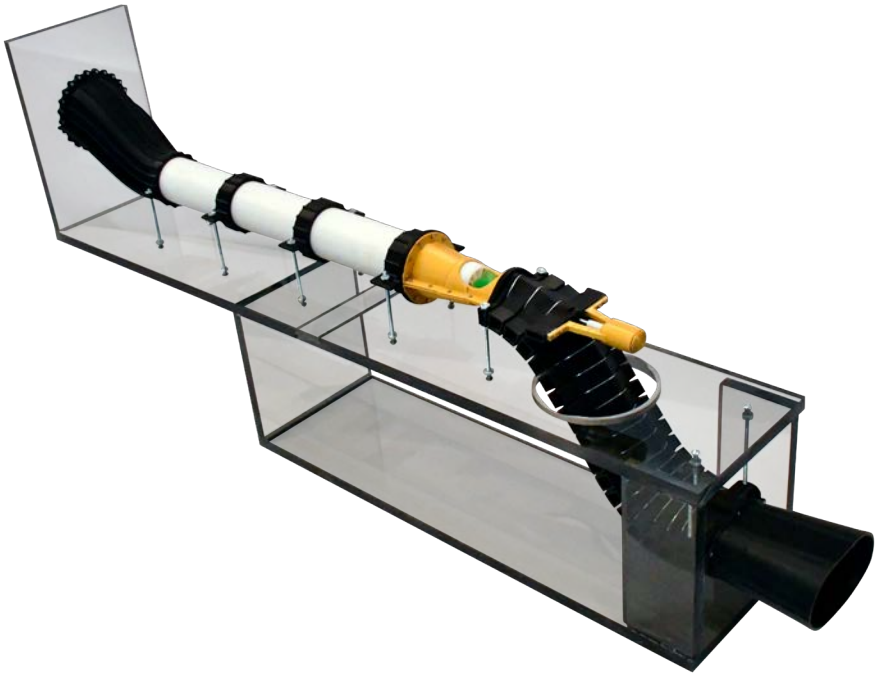
2022 AMUG Conference

April 3-7, 2022

Hilton Chicago
Chicago, Illinois, USA







WELCOME TO 2022 AMUG CONFERENCE

TABLE OF CONTENTS

WELCOME FROM AMUG PRESIDENT	4
AMUG ATTENDEE PARTICIPATION	5
GENERAL INFORMATION	6
MOBILE APP	7
FEATURED SPEAKERS	8
AGENDA-AT-A-GLANCE	8-9
KEYNOTE SPEAKERS	10
INNOVATORS SHOWCASE	11
SCHOLARSHIP & WINNERS	12-13
TECHNICAL COMPETITION	14
AMUG HISTORY	15
PRE-CONFERENCE ACTIVITY	16
AMUG CONFERENCE AGENDA	
SATURDAY - SUNDAY	17
MONDAY	18-19
TUESDAY	20-21
WEDNESDAY	22-23
THURSDAY	24-25
AMUGEXPO	26
AMUGEXPO FLOORPLAN	27
HILTON CHICAGO	
OVERVIEW AND MAP KEY	28-29
LOBBY LEVEL	30
LOWER LEVEL	31
2ND FLOOR	32
3RD FLOOR	33
4TH FLOOR	34
5TH FLOOR	35
8TH FLOOR	36
DINO AWARDS AND RECIPIENTS	38-39
AMUG BOARD AND COMMITTEES	40-43
AMUG AWARDS AND RECOGNITIONS	44-45
2022 AMUG CONFERENCE SPONSORS	46-47

Front Cover - 2021 AMUG Technical Competition winners:
(Left) Vito Gervasi/Cadens LLC - "BAAM Dam. Leveraging Large Format AM for Community Hydroelectric Applications"
(Right) Bill Braune/Dinsmore - "Death: A Horseman's Journey"

WELCOME TO AMUG 2022

FOR USERS. BY USERS.

As you read this, we are kicking off our 35th annual conference. Despite all of the challenges caused by COVID-19, we are together once again. This is the direct result of your tenacious character and commitment to AM. As a user of AM technology, you are the reason we host this gathering. Your unstoppable commitment, courageous conviction, and creative appetite to implement the next advanced solution are contagious, so make sure to spread it. Our AMUG Conference is about learning, information exchange and connection building. *These elements are ingredients for an amazing recipe that many others are starving for.*

Those statements probably sound a bit odd to those joining us for the first time. I agree; it is a bit unusual. If this was any other event, my comments might be inappropriate. By the end of the conference, which will seem like a lifetime gone in a minute, I hope you strongly agree that AMUG provides a unique experience: a welcoming atmosphere, a strong sense of community and unequaled engagements. I welcome you to our community and expect that you will have impromptu moments that bring about new lifelong friendships.

You may have seen our social media posts where people shared their first AMUG Conference memories. Some of this was the result of our marketing team's efforts but most are fueled by members that fondly remember their first event and the impact it had. Yes, mine was a long time ago, but I can still remember it, and I continue to enjoy many of the friendships I developed back then. I am eager to hear your stories.

When I started, we had this very cool AM process where, with the lights off, a blue laser would dance around and leave a green trail. I could sit and watch for hours! Observing the process at length helped me see a lot of problems and gain a solid understanding of the technology. At the time, I underappreciated the science that went into the process, but it was still so cool!

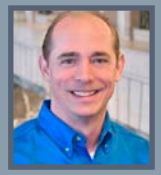
As time passed, more materials and alternative AM processes emerged. There was no longer one flavor to work with; there was a whole assortment of ingredients and appliances. All I had to do was choose when and how to use each to make any flavor I could think of.

But with so many options and so much to learn, becoming a master chef was not easy. While I did plenty of my own experimentation, it was shared experiences that elevated the quality of what I was serving to my consumers. Trading successes and challenges with AMUG members allowed us all to learn, grow and succeed.

One ingredient for AMUG Conference success that I failed to mention is *YOU*. AMUG creates the conference, but you make the experience. You are surrounded by amazing people that have broad, rich AM know-how. Tap into that while doing the same for others. You have four days and five nights to get cooking...to take your AM prowess to the next level. The insights are there for the asking. Make the most of the opportunity to advance your technologies, applications, concepts and ideas.

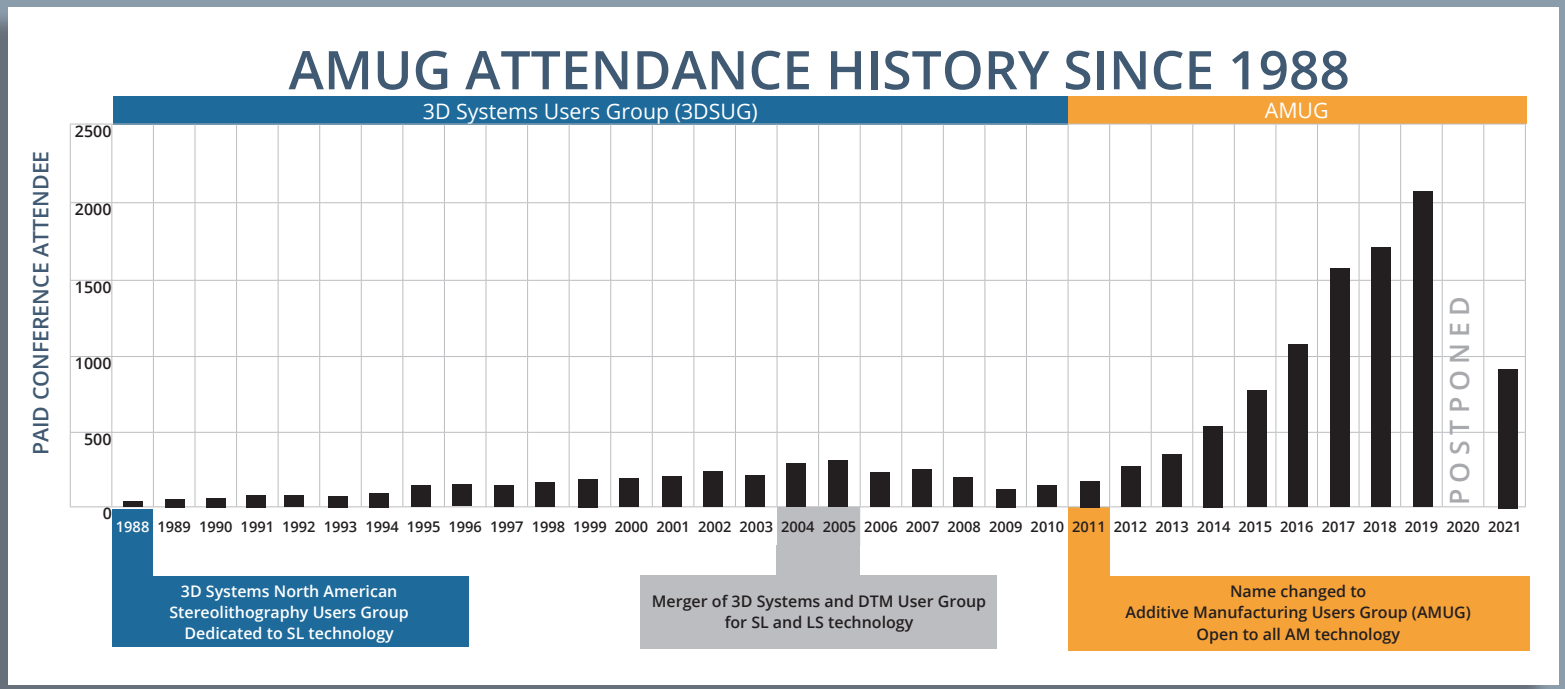
Please enjoy my hometown and have a great AMUG 2022!

Thank you,
Carl Dekker
AMUG President



AMUG ATTENDEE PARTICIPATION

"For Users, By Users" is both AMUG's philosophy and its guiding principle. Every presentation, panel, roundtable, workshop, sponsor and exhibitor passes through one simple filter: does it provide value to AM users? That is the crux of "For Users." We then turn to users to provide the content and count on them to make the conference valuable, memorable and unique. That is the "By Users" component.



AMUG Attendee and Country Participation

(Attendee numbers only reflects paid conference attendees in attendance. Does not include no-shows, nor exhibitors or sponsors not participating as a paid conference attendee).

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*
262 attendees	361 attendees	527 attendees	888 attendees	1061 attendees	1548 attendees	1705 attendees	2064 attendees	Postponed	862 attendees
17 countries	16 countries	17 countries	26 countries	23 countries	27 countries	29 countries	32 countries		10 countries

*Global and Company Travel Restrictions

PERCENTAGE OF ATTENDANCE BY INDUSTRY

BASED ON GLOBAL PRESENCE AT THE 2019 AMUG CONFERENCE

AEROSPACE
Aerospace and Space 12%

AUTOMOTIVE
Automotive 7%

CONSUMER
Consumer Products 5%

EDUCATION
Educational Institutes 3%

GOVERNMENT
Government, Military, and Defense 8%

MEDICAL
Medical and Dental 5%

SUPPLIER
AM Industry Suppliers 28%

SERVICE PROVIDER
Service Provider 8%

OTHER
Non-specified Industry 24%

GENERAL INFORMATION

AMUG CONFERENCE

AMUG Conference begins Sunday, April 3 at 4:00pm and concludes Thursday, April 7 at 10:00pm. See Agenda-at-a-Glance pages 8-9.

REGISTRATION AND BADGE PICKUP HOURS

Sunday, April 3:	10:00am - 8:00pm
Monday, April 4:	7:00am - 8:00pm
Tuesday, April 5:	7:00am - 5:00pm
Wednesday, April 6:	7:00am - 6:00pm
Thursday, April 7:	7:00am - 11:00am

All pre-conference Training and Certification Courses require additional registration and fee. *See page 16-17.*

AMUGEXPO HOURS

AMUGEXPO AND DINNER

Sunday, April 3: 4:00pm -10:00pm

AMUGEXPO

Monday, April 4: 10:00am - 2:30pm

AMUGEXPO,TECHNICAL COMPETITION, AND DINNER

Monday, April 4: 6:00pm - 10:00pm

Diamond and Platinum booths are open all week - see daily schedule for times. AMUGexpo is part of the AMUG Conference. Seperate tickets or attendance for the AMUGexpo are not available. AMUGexpo is open to all registered conference attendees and registered AMUGexpo booth staff.

DINING

Your AMUG Conference attendee pass includes all meals from Sunday evening through Thursday evening.

OFF-SITE EVENT AND DINNER

Conference attendees have full access to all conference activities including the AMUG Tuesday-night Off-Site Event and Dinner (surprise location!). Conference attendees have the option of bringing a guest for an additional fee, which can be purchased at the registration desk.

Off-Site Event and Dinner:	Tuesday, April 5
Board Buses:	5:00pm
Buses Leave:	5:30pm

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

IMPORTANT! BOARD OF DIRECTORS ELECTION

Attention all AMUG Members! The AMUG Board of Directors election will take place via the AMUG mobile app or in-person ballot. All paid conference attendees are eligible to vote. **Voting will take place Sunday, April 3 at 12:01am to Monday, April 4 at 11:59pm. All AMUG Conference attendees are considered AMUG Members, *even first-time attendees.***

BUSINESS MEETING

The AMUG Business Meeting will take place Wednesday, April 6 at 11:00am. The Business Meeting is for AMUG Conference attendees only. The Board of Directors for 2022-2023/2024 will be announced at the meeting. Please make sure to attend!

WIFI

Wi-Fi is available for free throughout the entire hotel and in your room.

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. A valid ID is required to obtain your AMUG badge.

SAFETY AND SECURITY

Please do not leave your belongings or conference materials unattended in session rooms or in the general area of the hotel. Should you have any issues during your stay, please contact Tom Sorovetz, mobile: +1 (734) 320-6310, or visit the AMUG Office on the Lobby Level near the AMUG Registration desk.

EVENT CONDUCT AND SAFETY

AMUG is committed to providing a safe, productive, and welcoming environment to all participants, including staff and vendors. AMUG has no tolerance for discrimination, harassment, or bullying in any form at AMUG-related events and activities. Participants are expected to adhere to these principles and respect the rights of others.

What to do if you witness or are subject to unacceptable behavior: Participants should report any behavior inconsistent with these principles to one of the following onsite personnel: Thomas Sorovetz, AMUG Event Manager, Elizabeth Goode, AMUG Principal Consultant or any AMUG Board of Director member. The AMUG Event Manager is the primary coordinator to help participants contact venue security or local law enforcement, provide safety escorts, or otherwise assist those experiencing harassment to feel safe for the duration of the event. We value your attendance.



Scan the QR Code to download the eventScribe App

STEP 1. DOWNLOAD THE EVENTSCRIBE APP

Search for "eventScribe" in the Apple App Store or Google Play Store.

INSTALL and OPEN the app then search for 2022 AMUG Conference, SELECT the event:

"AMUG 2022"

CLICK the icon to launch your app.

STEP 2. LOGIN TO THE AMUG CONFERENCE EVENT APP

To start using the event app, select "Login" and enter your:

Username (email address you registered with for the conference)

and

Registration ID (this is the registration identification you received when you registered)

Don't worry, this informaiton will be provided on the back of your badge

TAKE NOTES ON PRESENTATION SLIDES

Presentations supplied by the speaker will be available the day of the presentation. Note, some slides or presentations may differ from what is shown in the presentation room.

Find the presentation you need and interact with the presentation by drawing on slides or highlighting text. Use the note-taking mode to type your notes next to each slide. Access your notes and print them out by clicking the "My Notes" on the home screen or "Online Personal Summary" in the hamburger menu (☰).

No mobile device? No Problem. As long as you have an internet connection, you can take notes on presentations through your laptop via this link: https://tinyurl.com/amug2022



AMUG MOBILE APP

AMUG full-conference attendees receive access to all contents within the app including all course materials, presentations, recording and evaluations. The Conference Proceedings will be accessible via the mobile app and AMUG website.

Exhibitors and Expo Booth Staff receive access to non-course materials (AMUGexpo floor plan and information, no presentation/slide access).

EVALUATIONS

Speaker and Conference evaluations are accessible through the mobile app or through the online planner.

MEMBERS CHOICE

NEW! For the first time, we are asking AMUG members to vote on the Technical Competition. Voting will be open from Monday, April 4 at 6:00pm until Tuesday, April 5 at 4:00pm. Members Choice winner will be announced Wednesday, April 6 at the AMUG Business Meeting.

BOARD ELECTIONS

2022 will begin the new process for AMUG Board of Directors elections.

All paid Conference Attendees are requested to vote for their Board of Director candidate of choice. In the mobile app and online planner you are able to review the candidate profiles and introductory video.

AMUG Board of Directors Voting will take place starting Sunday, April 3 at 12:01am until Monday, April 4 at 11:59pm. ***Cast your vote!***

FEATURED SPEAKERS

EMCEE AMUG BOARD & CHAIRS



Todd Grimm
T.A. Grimm & Associates
AMUG Emcee

KEYNOTE



Kevin Czinger
Divergent 3D

SCHOLARSHIP WINNERS



2022 Guy E Bourdaeu Scholarship Winner
Akila Udage
Rensselaer Polytechnic Institute

2022 Randy Stevens Scholarship Winner
Frank Marquette
Troy University

TECHNICAL COMPETITION WINNERS



INNOVATORS SHOWCASE



Andy Christensen

KEYNOTE



Ellen Lee
Ford Motor Company

PRE-CONFERENCE ACTIVITY	PRE-CONFERENCE ACTIVITY
SATURDAY, APRIL 2, 2022	**SUNDAY, APRIL 3, 2022**
SUPPLEMENTARY CONFERENCE TRAINING AND CERTIFICATION **ASTM** **ASTM Certificate Course (2 day course)** **Establishing an Additive Manufacturing Facility for Critical Part Production** 8:00am-5:00pm More info on page 16	**SUPPLEMENTARY CONFERENCE TRAINING AND CERTIFICATION** **ASTM** **ASTM Certificate Course (continuation)** **Establishing an Additive Manufacturing Facility for Critical Part Production** 8:00am-3:00pm More info on page 16 **TOOLING-U | SME** **Certified Additive Manufacturing – Fundamentals (CAM-F) Review Course & Exam** 7:30am-3:00pm More info on page 16 **OFF-SITE TOURS** **DMG MORI - Technology Tour** More info on page 16
	AMUG CONFERENCE ACTIVITY BEGINS
	REGISTRATION OPEN 10:00AM-8:00PM **SPEAKER CENTER AND APP DESK OPEN** 10:00AM-8:00PM CONFERENCE PROGRAM **New Member Welcome** 3:00pm-4:00pm First-time conference attendees welcome and introduction to the AMUG Conference. **AMUGexpo and Networking Dinner** EXPO OPEN 4:00pm - 10:00pm Join us Sunday night for the AMUGexpo Opening. Enjoy a buffet dinner and beverages as you tour the AMUGexpo. ALL EXHIBITS OPEN

First Time at AMUG?
New Member Welcome
Sunday, April 3 at 3:00pm
Normandie Lounge, 2nd Floor

AGENDA-AT-A-GLANCE

AMUG CONFERENCE

MONDAY, APRIL 4, 2022

REGISTRATION OPEN
7:00am-8:00pm

SPEAKER CENTER AND APP DESK OPEN
7:00am-4:30pm

BREAKFAST
7:00am-8:00am

CONFERENCE PROGRAM
Insights and Highlights
8:00am-10:00am
AMUG Welcome *insights*
2022 Scholarship Winners *highlights*
2022 Board Election Process *insights*
AMUG Conference and The Manufacturing Loop *highlights*
Diamond Sponsor Insights and Highlights *what you need to know with Todd Grimm*

Break
10:00am-10:30am

AMUGexpo
EXPO OPEN
10:00am-2:30pm (note: sessions begin at 1:30pm)
ALL EXHIBITS OPEN

Networking Lunch
12:00pm-1:15pm
Sponsors and Exhibitors welcome

AMUG, Sponsor and Training Sessions
1:30pm - 2:30pm

Break
2:30pm-3:00pm

AMUG, Sponsor and Training Sessions
3:00pm - 5:30pm

AMUGexpo, Technical Competition and Networking Dinner
EXPO OPEN with Technical Competition
6:00pm - 10:00pm
ALL EXHIBITS OPEN

Don't Miss!
AMUG Technical Competition
Monday, April 4 at the
AMUGexpo
6:00pm-10:00pm
Members Choice Voting continues Tuesday, April 5
Technical Competition on display on the Lower Level between Salon B and C for Members Choice Award voting

TUESDAY, APRIL 5, 2022

REGISTRATION OPEN
7:00am-5:00pm

SPEAKER CENTER AND APP DESK OPEN
7:00am-4:00pm

BREAKFAST
7:00am-8:00am

CONFERENCE PROGRAM
INTERNATIONAL REPORT
8:00am-8:30am

2022 DINOS
2022 DINO Awards Announced
8:30am-9:00am
Distinguished **IN**novator **O**perator (DINO) Presentation

KEYNOTE
Kevin Czinger, *Divergent 3D*
9:00am-10:00am

Break
10:00am-10:30am

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

Networking Lunch
12:00pm-1:15pm

AMUG, Sponsor and Training Sessions
1:30pm - 2:30pm

Break
2:30pm-3:00pm

AMUG, Sponsor and Training Sessions
3:00pm - 4:00pm

Board Buses for Off-Site Dinner
5:00pm - 5:30pm
Buses leave promptly at 5:30pm
Everyone must wear their AMUG badge or show their purchased ticket to board the bus.

AMUG Off-Site Dinner
6:30pm - 10:00pm
An event for all full-conference pass attendees.

Transportation provided. Additional dinner tickets are available for purchase.

WEDNESDAY, APRIL 6, 2022

REGISTRATION OPEN
7:00am-6:00pm

SPEAKER CENTER AND APP DESK OPEN
7:00am-4:00pm

BREAKFAST
7:30am-8:30am

CONFERENCE PROGRAM
2021 Technical Competition Winners
8:30am-9:00am
The 2021 AMUG Technical Competition winners will provide a presentation on their winning applications

INNOVATORS SHOWCASE
Andy Christensen
9:00am-10:00am

Break
10:00am-10:30am

2022 Technical Competition Winners Announced
10:30am-11:00am

AMUG Business Meeting
11:00am-11:45pm
Open to all full-conference pass attendees.
New 2022-2024 AMUG Board Members Announced

2022 Technical Competition Members Choice Award Announced
11:45am-12:00pm

Networking Lunch
12:00pm-1:15pm

AMUG, Sponsor and Training Sessions
1:30pm - 2:30pm

Break
2:30pm-3:00pm

AMUG, Sponsor and Training Sessions
3:00pm - 5:30pm

Dinner - Roaring 20's
6:00pm-10:00pm
An event for all full conference pass attendees and sponsors. Enjoy a night of great food, games, and more.

THURSDAY, APRIL 7, 2022

REGISTRATION OPEN
7:00am-11:00am

SPEAKER CENTER AND APP DESK OPEN
7:00am-2:00pm

BREAKFAST
7:30am-8:30am

CONFERENCE PROGRAM
AMUG MEMBER INSIGHTS - BOARD PANEL DISCUSSION
AMUG Board of Directors, The Future of AMUG
8:30am-9:00am

KEYNOTE
Ellen Lee, *Ford Motor Company*
9:00am-10:00am

Break
10:00am-10:30am

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

Networking Lunch
12:00pm-1:15pm

AMUG, Sponsor and Training Sessions
1:30pm - 2:30pm

Break
2:30pm-3:00pm

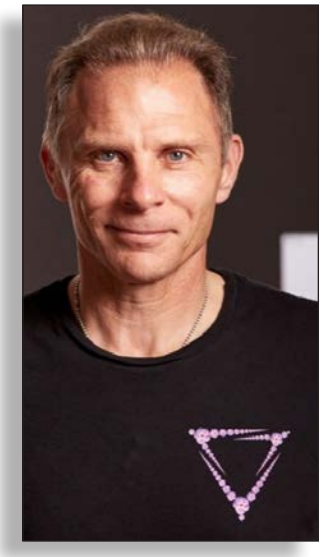
AMUG, Sponsor and Training Sessions
3:00pm - 5:30pm

Family Dinner & Closing
6:00pm - 10:00pm
An event for all full-conference pass attendees and sponsors.

AMUG Closing Dinner is the official closing event at the AMUG Conference. Along with a family dinner there will be music and activities for everyone to participate.

CONFERENCE CONCLUDES

KEYNOTE SPEAKERS



Kevin Czinger
Divergent 3D
Tuesday, April 5 at 9:00am
International Ballroom, 2nd Floor

Kevin will take the stage on Tuesday, April 5, to share how he founded Divergent 3D in 2013 to rethink how vehicles are produced at scale, using a clean slate, system-level approach to digital manufacturing. This approach has already been successfully demonstrated by Divergent's captive product company, Czinger Vehicles, and Divergent 3D is partnering with several major, unnamed automotive OEMs to break the barriers of serial production using additive manufacturing at scale.

At the core of Divergent 3D's solution and a central point for the keynote presentation is DAPS™ (Divergent Adaptive Production System). DAPS is a system-level solution that delivers multi-objective, optimized designs; purpose-designed materials; tool-less additive manufacturing, and automated, fixture-less assembly. Kevin founded Divergent 3D in 2013 and serves as its CEO. He is also a member of SLM Solutions Group's supervisory board.



Ellen Lee
Ford Motor Company
Thursday, April 7 at 9:00am
International Ballroom, 2nd Floor

On Thursday, April 7, Ellen will present "Automotive Manufacturing to Additive Manufacturing: From History to the Future of Mobility." She will share how key events and needs in the history of mobility have influenced the development and advancement of the modern manufacturing industry, such as the moving assembly line, development of new materials, and creation of new technologies. Building on that insight, she will discuss the continued drive for innovation in new aspects, such as mass customization, decentralized supply chains, and digital manufacturing—and additive manufacturing will play a critical role in meeting those needs.

Ellen's entire professional career, spanning 23 years, has been at Ford Motor Company. For the past six years, she has served in her current role as technical leader for additive manufacturing research. In that capacity, she has become well known and well respected in the additive manufacturing industry.

2022 AMUG INNOVATORS SHOWCASE

ANDY CHRISTENSEN has spent his entire career focused on developing and expanding the medical applications of 3D Printing and Additive Manufacturing. As an undergraduate, Andy studied business at the University of Colorado at Denver. His first introduction to the stereolithography process was circa 1993 and subsequently he attended his first NASUG (North American Stereolithography User's Group) in 1996. From 2000 to 2014 he was the Founder and President of Medical Modeling Inc., a world-leading, medical-device-focused 3D Printing service bureau based in Golden, Colorado. Medical Modeling worked closely with surgeons and medical device manufacturers to create entirely new toolsets in the areas of patient-specific anatomic modeling, virtual surgical planning, personalized surgical guides/implants and applying metal 3D printing to orthopedic implant applications. Andy and his team contributed to the care of tens of thousands of patients, a number of medical and regulatory "firsts" and numerous high-profile cases including more than two dozen sets of conjoined twins.

Medical Modeling, working as a contract manufacturer, produced the very first FDA-cleared titanium implants in both the orthopedic and spine spaces. In addition to the commercial applications, Andy has always had interest in the science and has published numerous papers and several book chapters. In 2014, Medical Modeling was acquired by 3D Systems and contributed to the creation of a new business vertical for 3D Systems in the Healthcare sector. Andy left 3D Systems in 2015 to pursue other interests, not the least of which was spending more time with his family.

Today Andy plays a role in a few 3D printing endeavors. He currently serves as Chair of the Radiological Society of North America (RSNA) 3D Printing Special Interest Group. He is an Associate Editor for the journal "3D Printing in Medicine," published by BMC, as well as an Adjunct Professor in the Department of Radiology at the University of Cincinnati. Andy is an active investor and serves as a board member and/or advisor for a few enterprises, not surprisingly most of which are healthcare related. Andy has a varied set of interests, but in the 3D printing arena his current interests are in tackling some of the bigger issues affecting the industry, including providing support to hospitals as they work to establish their own 3D printing labs and gaining insurance reimbursement for 3D printing-enabled technologies as applied to individual patients.



Andy Christensen

Founder and past president, Medical Modeling Inc.
Adjunct professor, Department of Radiology, University of Cincinnati

INNOVATORS SHOWCASE
Wednesday, April 6 at 9:00am
International Ballroom, 2nd Floor

Monday, April 4 at 8:00am
International Ballroom, 2nd Floor

2022 SCHOLARSHIP WINNERS

FOR ADDITIVE MANUFACTURING & 3D PRINTING EDUCATION and PROFESSIONAL DEVELOPMENT AT THE AMUG CONFERENCE

In the honor and memory of two long-time and avid supporters of AMUG, two scholarships have been established.

Guy E. Bourdeau Scholarship – for Students was established in 2014 by Guy's wife, Renee Bourdeau.

Randy Stevens Scholarship – for Teachers/ Professors was established in 2014 by Randy's employer, In'Tech Industries.

GUY E BOURDEAU SCHOLARSHIP WINNER



Akila Udage
Rensselaer Polytechnic Institute

Akila Udage completed his undergraduate in electrical engineering at the University of Moratuwa, Sri Lanka. Akila's first exposure to Additive Manufacturing (AM) came while pursuing his master's degree at the Lighting Research Center (LRC) at Rensselaer Polytechnic Institute (RPI) where he chose 3D printed optics as his thesis topic. As a graduate research assistant, he focused on integrating additive manufacturing into LED lighting systems where he has been analyzing the advantages and challenges of developing structural, thermal, electrical, and optical components with 3D Printing. Akila's efforts on 3D printed optics are focused on the 3D printing of novel lenses for illumination applications and in the characterization of 3D printed reflective and transmissive optical components. Akila is developing 3D printed antennas and evaluating the effect of 3D printing properties on electrical traces. Additionally, he is investigating the thermal properties of 3D printed components used as heat sinks for LED applications.

RANDY STEVENS SCHOLARSHIP WINNER



Frank Marquette
Troy University

Frank Marquette had a dynamic career in manufacturing before entering higher education. Based in New Zealand, his company delivered projects ranging from automatic guided vehicles for Disney Imagineering ride systems to building sets for the motion picture industry including "The Lord of the Rings".

Frank was awarded a professorship at Troy University in 2017 and has served teaching design and the implementation of automation for fabrication and manufacturing. In 2020 he launched a minor and A.S. in "3D Printing for Art and Industry". These courses begin with the fundamentals of design and offer extensive applied learning experiences in the 3DP Lab. The program emphasis is Large Format Printing and Sustainable Materials, and attracts a wide variety of students, everything from Dance & Theatre to Computer Science majors. More recently, Frank and his students are 3D Concrete Printing, where Frank is utilizing his 30 years' experience with concrete mix designs and his background in automation to push the boundaries.

SCHOLARSHIPS



GUY E BOURDEAU SCHOLARSHIP

The Guy E. Bourdeau Scholarship provides the opportunity for highly motivated students to earn the opportunity to attend the Additive Manufacturing Users Group (AMUG) conference. Guy E. Bourdeau Scholars are honest, respectful, inquisitive and collaborative.

The scholarship honors the memory of Guy E. Bourdeau for his dedication and contribution to the additive manufacturing industry. He was a strong supporter and advocate of the Additive Manufacturing Users Group (AMUG). The scholarship was founded in Guy's name by his wife, Renee Bourdeau, to honor his contributions to the additive manufacturing (AM) industry.

2022 Financial Supporter for Guy Bourdeau Scholarship

CIMQUEST



RANDY STEVENS SCHOLARSHIP

The Randy Stevens Scholarship provides the opportunity for a highly motivated high school teacher, college or university professor in additive manufacturing (AM) to earn the opportunity to attend the Additive Manufacturing Users Group (AMUG) Conference. Randy Stevens Scholars are honest, respectful, inquisitive and collaborative.

The Randy Stevens Scholarship honors the memory of Randy Stevens for his dedication and contribution to the additive manufacturing industry. He was a strong supporter and advocate of the Additive Manufacturing Users Group. The scholarship was founded in Randy's name by his employer, In'Tech Industries, Inc., to honor his contributions to the additive manufacturing industry.

2022 Financial Supporter for Randy Stevens Scholarship

In'Tech Industries, Incorporated



SCHOLARSHIP RECIPIENTS

Guy E Bourdeau Scholarship

2015 - Kaiyi Jiang, The University of Texas at Austin

2016 - Dr. Yaser Shanjani, Stanford University School of Medicine

2017 - Claire Belson, University of Alabama

2018 - Daniel Delgado Camacho, The University of Texas at Austin

2019 - Victoria Sears, University of Michigan

2020 - Kate Schneidau, University of Louisville

2021 - Sean Dobson, University of Cincinnati

Randy Stevens Scholarship

2015 - Lydia Nelson, Whitman-Hanson Regional High School

2016 - Dr. Nathan Patterson, Milwaukee School of Engineering

2017 - Dr. Haijun Gong, Georgia Southern University

2018 - Dr. Emrah Celik, PhD, University of Miami

2019 - Wenchao Zhou, University of Arkansas

2020 - Chris Kaminsky, Muskegon Community College

2021 - John Sorvillo, Westwood Prep Academy at New Beginnings

2021 TECHNICAL COMPETITION WINNERS

The AMUG Technical Competition provides a forum for users of additive manufacturing technologies to display their unique applications as well as their finishing capabilities.

ADVANCED CONCEPTS

The Advanced Concepts category recognizes individuals and their companies for exemplary work with additive manufacturing technologies. Entries in this category will "push the envelope" for a particular technology or a combination of technologies. Unique applications, processes, and/or utilization are desired in this category.

ADVANCED FINISHING

The Advanced Finishing category has been created to recognize the efforts of those whom we often overlook when evaluating a model. The designers and engineers may hatch a concept, but it is often the parts finishers, model makers, painters and others that bring a prototype to life.

ADVANCED CONCEPTS



"BAAM Dam. Leveraging Large Format AM for Community Hydroelectric Applications"
Vito Gervasi, Cadens LLC

ADVANCED FINISHING



"Death: A Horseman's Journey"
Bill Braune, Dinsmore

2022 AMUG Technical Competition at the AMUGexpo

Monday, April 4 at 6:00pm-10:00pm
Salon C, Lower Level

Visit the Technical Competition in Salon C during the AMUGexpo. Entries in both Advanced Concepts and Advanced Finishing will be on display. During the night, DINO judges will evaluate the entries and select a winner in each category. The winners will be announced Wednesday, April 6 at 10:30am.

NEW! Members will have the opportunity to particaipate in the Technical Competition by voting on a Members Choice Award. See details under Tuesday.

MEMBERS CHOICE AWARD

Tuesday, April 5 from 7:00am-4:00pm
Hallway, Lower Level

Technical Competition entries on display in the Lower Level Hallway between Salon B and C from 7:00am - 4:00pm on Tuesday only.
Voting for Members Choice will be open from Monday, April 4 at 6:00pm until Tuesday, April 5 at 4:00pm.

New! AMUG is launching the Members Choice for the AMUG Technical Competition. While DINOs will judge the entries based on criteria for Advanced Concepts and Advanced Finishing, we are inviting the AMUG members to vote on a "Members Choice" and the winner will be announced Wednesday, April 6 after the AMUG Business Meeting at 11:45am.

Voting details will be provided Monday, April 4 during the morning General Session and on the AMUG Mobile App.

2021 TECHNICAL COMPETITION WINNERS PRESENTATION

Wednesday, April 6 at 8:30am
International Ballroom, 2nd Floor

2021 Advanced Concepts Winner
"BAAM Dam. Leveraging Large Format AM for Community Hydroelectric Applications"
Vito Gervasi, Cadens LLC

2021 Advanced Finishing Winner
"Death: A Horseman's Journey"
Bill Braune, Dinsmore

2022 Winners Announced at 10:30am
International Ballroom, 2nd Floor

2022 Technical Competition Winners announced Wednesday, April 6 at 10:30am and Members Choice Technical Competition winner announced at 11:45am after the AMUG Business Meeting.

AMUG HISTORY

The Additive Manufacturing Users Group's origins date back to the late 1980's when the founding industry users group was called 3D Systems North American Stereolithography Users Group, a users group solely focused on the advancement of stereolithography (SL) use with the owners and operators of 3D Systems' equipment. Today, AMUG educates and supports users of all additive manufacturing technologies. The primary charter of the group remains the same, but its members are much more diversified, global and focused in advancing additive manufacturing technology for rapid manufacturing and prototyping.

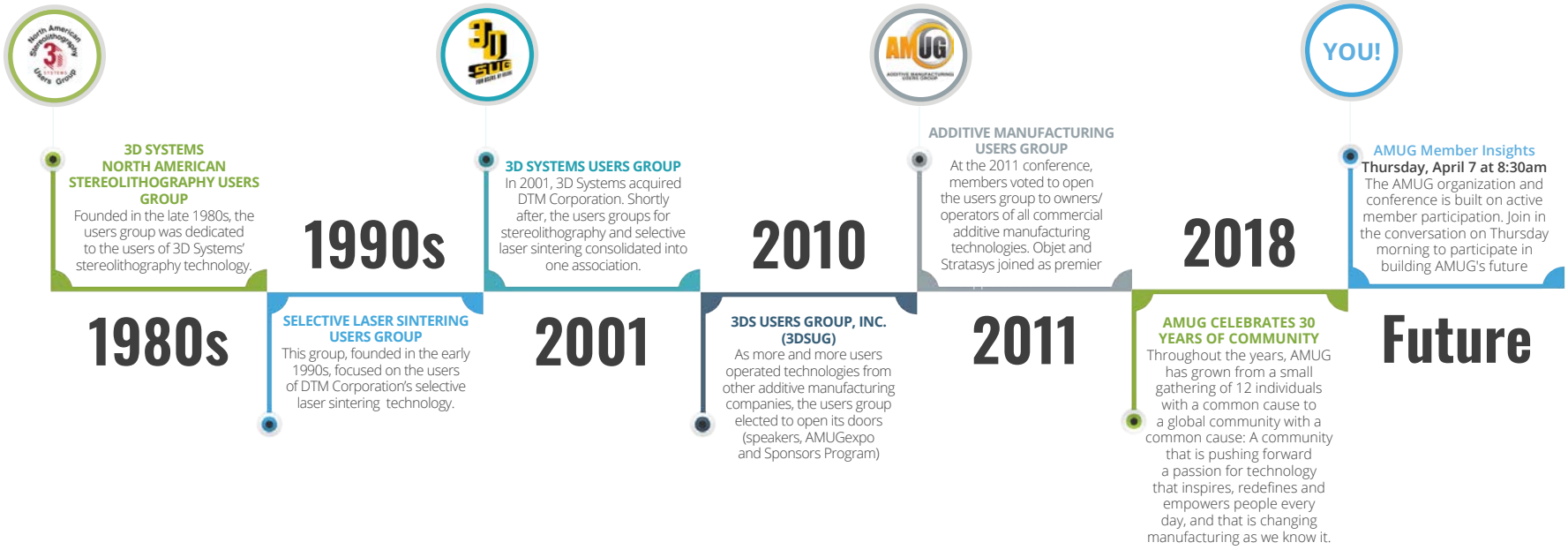
With AMUG's expanded range, operators/owners of any commercial technology — stereolithography (SL), selective laser sintering (SLS), 3D printing, CLIP, DMD, DMLM, DMLS, EBM, FDM, LC, LS, MJP, PolyJet, SLM, and more — can benefit from the information exchange and professional network that AMUG offers.

OBJECTIVES

+ Encourage effective communication of information amongst all additive manufacturing equipment owners and operators.
+ Provide a forum for presentations and the ability to network with colleagues.
+ Propose solutions to problems that involve basic modification to hardware or software.
+ Provide an open atmosphere for technology exchange.

ACTIVITIES

+ Hold annual and periodic meetings for the purpose of conducting business of AMUG.
+ Establish special task or interest groups to study specific mutual areas of interest.
+ Identify problems and propose solutions or improvements and recommend uniform practices and techniques to be used by the membership.



PRE-CONFERENCE ACTIVITY

The programs listed below are NOT included with AMUG Conference registration. **Participation requires separate registration and is at an additional cost.**

ASTM CERTIFICATE COURSE
Establishing an Additive Manufacturing Facility for Critical Part Production

Cost: $799
Register: https://na.eventscloud.com/amfacility
Maximum class size: 50

Course Dates:
Saturday, April 2 (8:00am – 5:00pm)
Sunday, April 3 (8:00am – 3:00pm)

Course Instructors:
Youping Gao, Castheon Inc.
Shane Collins, ASTM International

Course Location: Lake Erie, 8th Floor, Hilton Chicago
This course is aimed at individuals with existing experience in AM, who wish to understand all the information needed to update an existing facility or create a new facility for the purpose of manufacturing safety critical parts using the laser powder bed fusion process with metal powders.

The 2-day training, based on ISO and ASTM standards, will provide both the seasoned AM professional and novices with all the requirements needed to update an existing facility or start a new business for the purpose of manufacturing safety critical parts using PBF-LB. The course will provide detailed instruction on all aspects of the operations from feedstock selection and qualification to processing and post processing (IQ, OQ, PQ) using real life candidate parts from the attendees.

Day 1
- Equipment selection based on candidate parts and ROI calculations
- Facility considerations, requirements, and controls
- Establishing factory and site acceptance tests
- Workflow and efficiency
- Make or buy decisions with post processing
- Machine calibration and certification
- Metallurgical process qualification

Day 2
- QMS for all powder bed fusion work instruction
- Digital twin definition
- Part qualification considerations
- Business plans and growth strategy
- Personnel training requirements
- Preventive maintenance
- Manufacturing plan creation
- Inspection and NDE for production
- Considerations for NASA 6030 spec
- In-situ monitoring

Exam will be 2 weeks after the training event, held online.
After successful completion of the course, the participants will receive an ASTM AM Certificate.

TOLLINGU | SME
Certified Additive Manufacturing – Fundamentals (CAM-F) Review Course & Exam

Cost: $395.00
Register: showproevent.com/AMTC0422

Course Dates:
Sunday, April 3 (7:30am – 3:00pm)

Course Instructor:
Sheku Kamara, MSOE

Course Location: Lake Michigan, 8th Floor, Hilton Chicago
This one-day program includes a review course covering the foundations of additive manufacturing, followed by the Certified Additive Manufacturing – Fundamentals (CAM-F) exam. The review course and certification are ideal for individuals working in or seeking to work in additive manufacturing roles in automotive, aerospace, and medical equipment. It is also ideal for high schools and colleges as a capstone or stand-alone achievement to increase workforce readiness in additive manufacturing.
The four-hour review course is a discussion-oriented and interactive session with learning activities in which participants receive comprehensive introductory knowledge of the 3D printing technology and industry. Covering terms and definitions, software and hardware as well as discussing applications and case studies for each technology, you will begin to understand the benefits of 3D printing in a way that is relevant to your business needs. The course outline is aligned with the Additive Manufacturing Body of Knowledge (AMBOK) outlining the current state-of knowledge in additive manufacturing, as well as areas that have been identified as important by a wide range of additive manufacturing professionals.
Objectives:
- Identify the various 3D printing technologies & their benefits/limitations
- Define the basic 3D printing process
- Understand the benefits of 3D printing over traditional manufacturing processes
- Understand the hardware & software for 3D digital file management
- Identify common materials for each 3D printing technology
- Identify basic safety & quality considerations specific to 3D printing
- Following the review course, participants will take the Certified Additive Manufacturing – Fundamentals (CAM-F) exam. The three-hour exam consists of 100 multiple choice questions and allows for open book and open notes. With a passing score of 70% or higher, individuals will be officially certified and may use the CAM-F designation.

Duration: 7:30am – 3:00pm
Review Program: 7:30am – 11:30am
Lunch Break: 11:30am – 12:00pm
Exam: 12:00pm – 3:00pm

Off-Site Tours

TOUR DMG MORI

AMUG is pleased that DMG MORI Chicago is opening its doors to AMUG members for an exclusive offsite tour of their facility. The tour will provide an in-depth look at their AM process chain, including the design and programming phase to building and finishing components. They will also feature their LASERTEC powder nozzle Directed Energy Deposition (DED) and powder bed Selective Laser Melting (SLM) technology paired with the latest 5-axis CNC technology and automation. The tour will also cover quality assurance and inspection.

Cost: FREE
Advanced registration is required.
Register: https://us.dmgmori.com/news-and-media/events/event/exclusive-technology-tour-in-chicago/625496

Tour Date:
Sunday, April 3 (10:00am - 3:00pm)

Agenda
10:00 a.m.: Shuttle leaves Hilton Chicago for transport to DMG MORI
11:00 a.m.: Check in at DMG MORI Hoffman Estates
11:15 a.m.: Welcome presentation
11:30 a.m.: Exclusive Technology Tour
12:10 p.m.: Coffee Break + Light Snack
1:30 p.m.: Shuttle leaves DMG MORI to return to AMUG Conference

DETAILS
Where: DMG MORI N.A. HQ, Hoffman Estates, Illinois
When: Sunday, April 3 from 10:00 am to 3:00 pm
Board bus at 10:00 am at the Hilton Chicago
Board at 8th Street entrance (near the Conference Registration area and Kitty O'Shea's.
Returning bus departs DMG MORI at 1:30 pm
Transportation: Provided by DMG MORI

SATURDAY, APRIL 2, 2022

AMUGexpo Lower Level		PRE-CONFERENCE PROGRAMS ADDITIONAL REGISTRATION AND COSTS APPLY		AMUG PROGRAM	
AMUGEXPO AREA CLOSED FOR SETUP	8:00am-8:30am	**ASTM Certificate Course** **Establishing an Additive Manufacturing Facility for Critical Part Production** Location: Lake Erie, 8th Floor, Hilton Chicago **Saturday, April 2** 8:00 am – 5:00 pm *continues* **Sunday, April 3** 8:00 am – 3:00 pm **Register:** https://na.eventscloud.com/amfacility		AMUGexpo Sponsor and Exhibitor set-up continues All setup to be completed by Sunday, April 3 at 1:00pm	AMUG Program Set-Up with Volunteers
	8:30am-9:00am				
	9:00am-9:30am				
	9:30am-10:00am				
	10:00am-10:30am				
	10:30am-11:00am				
	11:00am-11:30am				
	11:30am-12:00pm				
	12:00pm-12:30pm				
	12:30pm-1:00pm				
	1:00pm-1:30pm				
	1:30pm-2:00pm				
	2:00pm-2:30pm				
	2:30pm-3:00pm				
	3:00pm-3:30pm				
	3:30pm-4:00pm				
	4:00pm-4:30pm				
	4:30pm-5:00pm				

SUNDAY, APRIL 3, 2022

AMUGexpo Lower Level		PRE-CONFERENCE PROGRAMS ADDITIONAL REGISTRATION AND COSTS APPLY			AMUG PROGRAM	
AMUGEXPO AREA CLOSED	8:00am-8:30am	**ASTM Certificate Course** **Establishing an Additive Manufacturing Facility for Critical Part Production** Location: Lake Erie, 8th Floor, Hilton Chicago *2nd day* **Sunday, April 3** 8:00 am – 3:00 pm *registration for Saturday and Sunday required*	**TOOLINGU | SME** **Certified Additive Manufacturing – Fundamentals (CAM-F) Review Course & Exam** Location: Lake Michigan, 8th Floor, Hilton Chicago **Sunday, April 3** 7:30 am – 3:00 pm **Register:** showproevent.com/AMTC0422			
	8:30am-9:00am					
	9:00am-9:30am					
	9:30am-10:00am					
	10:00am-10:30am			**DMG MORI TOUR** **Sunday, April 3** 10:00 am – 3:00 pm **Cost:** FREE **Advanced registration is required.** **Register:** https://us.dmgmori.com/news-and-media/events/event/exclusive-technology-tour-in-chicago/625496	Registration Open **Location: Lobby Level** **10:00am - 8:00pm** **Badge Pick-up** **Speaker Center** **Mobile App Center**	
	10:30am-11:00am					
	11:00am-11:30am					
	11:30am-12:00pm					
	12:00pm-12:30pm					
	12:30pm-1:00pm					
	1:00pm-1:30pm					
	1:30pm-2:00pm					
	2:00pm-2:30pm					
	2:30pm-3:00pm					
	3:00pm-3:30pm					New Member Welcome Derek Ellis, *New Member Chair* Location: Normandie Lounge, 2nd Floor 3:00pm - 4:00pm
	3:30pm-4:00pm					
AMUGexpo Open 4:00pm-10:00pm	4:00pm-10:00pm	**AMUGexpo | Dinner and Networking** Salon A, C, D, Lower Level				

INTRODUCING

THE MANUFACTURING LOOP

presented by AMUG and SME

Sunday, April 3 - Thursday, April 7
2nd Floor across from Normandie Lounge

As Rapid Prototyping evolved into Additive Manufacturing (AM), one of the shared visions has been to put AM on the manufacturing floor to produce production components, inserts for tooling, end of arm robotics, fixtures, gauges, and more.

One of the potential roadblocks to widespread adoption of this vision is the understanding of the complexities of manufacturing, such as equipment, Geometric Dimensioning and Tolerancing (GD&T), and tooling.

To help bridge the knowledge gap, the AMUG organization and SME have teamed up to present a compilation of manufacturing videos called "The Manufacturing Loop". These short videos (provided by SME) will showcase various pieces of manufacturing equipment, such as CNC Machining, Injection and Blow Molding, and more. The videos will also provide an overview on other areas of manufacturing, including GD&T, and automation of the manufacturing floor.

The Manufacturing Loop will be on display during the AMUG Conference on the second floor, across from the Normandie Lounge. There will be a poster next to each of the video monitors that outlines what is highlighted in each video, and a QR Code with a link so you can access the content at a later date. Access will also be available through the AMUG mobile app.

MONDAY, APRIL 4, 2022

REGISTRATION - SPEAKER CENTER - MOBILE APP DESK

Hours Open		Location
7:00am - 8:00pm	REGISTRATION and BADGE PICK-UP	Lobby Level
7:00am - 4:30pm	Speaker Center and Mobile App Desk Open	Lobby Level

SESSION LEVEL KEY B - BEGINNER
I - INTERMEDIATE
A - ADVANCED

General Sessions and Breakouts open to all Conference Attendees
Speakers, Dates and Times subject to change without notice
Updates made through mobile app

TIME	EXPO AREA	SESSIONS AND ACTIVITIES
7:00am - 8:00am	AMUGexpo CLOSED	**BREAKFAST** — Location: Normandie Lounge and Grand Ballroom, Second Floor
8:00am - 10:00am	AMUGexpo CLOSED	**AMUG INSIGHTS AND HIGHLIGHTS** AMUG Welcome *insights with Carl Dekker, AMUG President* 2022 Scholarship Winners *highlights with Brett Charlton, AMUG Scholarship Committee and Scholarship Winners* ***Guy E. Bourdeau Winner*** *- Akila Udage, Rensselaer Polytechnic Institute* ***Randy Stevens Winner*** *- Frank Marquette, Troy University* 2022 Board Election Process *insights with Paul Bates, AMUG Past President* AMUG Conference and Manufacturing Loop *highlights with Jordan Weston, AMUG Director, Conference & Education* Insights and Highlights *what you need to know with Todd Grimm, T.A. Grimm and Associates* Location: International Ballroom, Second Floor
10:00am - 10:30am	AMUGexpo OPEN 10:00am - 2:30pm Break and Networking Lunch in AMUGexpo area Sessions begin at 1:30pm	**BREAK** — Location: AMUGexpo area in Salon A, C, and D on Lower Level
10:00am - 2:30pm		**AMUGexpo Area Open.** Visit Diamond, Platinum, Gold and Exhibitor booths in Salon A, C and D on the Lower Level
12:00pm - 1:15pm		**NETWORKING LUNCH** — Location: AMUGexpo area in Salon A, C, and D on Lower Level
		BREAKOUT SESSIONS BEGIN

AMUG PROGRAM

CONTINENTAL A LOBBY LEVEL — AEROSPACE/TRANSPORTATION

1:30pm - 2:30pm

PRESENTATION (B,I,A)
A How to Guide: Achieving Application Readiness for Automotive Production AM
Giuseppe Lacaria
Ford Motor Company

3:00pm - 4:00pm

PRESENTATION (B,I,A)
Advancement of Metal Additive Manufacturing Processes and Alloys for Rocket Propulsion Applications
Paul Gradl
Alison Park
Chris Protz
Colton Katsarelis
NASA Marshall Space Flight Center

4:30pm - 5:30pm

PRESENTATION (B,I,A)
U.S. Army Expeditionary Additive Manufacturing at the Point of Need
Thomas Vretis
U.S. Army Combat Capabilities Development Command - Armaments Center

BOULEVARD ROOM A/B 2ND FLOOR — AM METAL TECHNOLOGIES

1:30pm - 2:30pm

PRESENTATION (I)
Metal Binder Jet: Where to Find Success
Lucas Stahl
Eaton

3:00pm - 4:00pm

PANEL (B,I,A)
Metal AM Technology for MoldMaking/Tooling Applications

MODERATOR
Lou Young, *Atomic Industries*

PANELIST
Juan Mario Gomez, *Xact Metal*
Ted Sorom, *Mantle 3D*
Bob Wood, *ExOne*

4:30pm - 5:30pm

PRESENTATION (B,I,A)
What Does One Year of Serial Production (Metal L-PBF) Look Like
Tad Steinberg
Ross Henrys
Siemens Energy

CONTINENTAL B LOBBY LEVEL — SCANNING & METROLOGY

1:30pm - 2:30pm

PRESENTATION (B,I,A)
An Introduction to 3D Scanning for Quality and Metrology
Giles Gaskell, *Hexagon*
Derek Ellis, *Authentise*

3:00pm - 4:00pm

WORKSHOP (B,I,A)
Scanning for Quality Workshop
Giles Gaskell, *Hexagon*
Derek Ellis, *Authentise*
Bob Renella, *CATI*

4:30pm - 5:30pm

PANEL (B,I,A)
3D Scanning Expert Panel

MODERATOR
Giles Gaskell, *Hexagon*

PANELIST
Derek Ellis, *Authentise*
Bob Renella, *CATI*
Jake Rickter, *Pinnacle X-Ray Solutions*
Roger Wende, *Volume Graphics*

BOULEVARD ROOM C 2ND FLOOR — MEDICAL & DENTAL

1:30pm - 2:30pm

PANEL (A)
Point-of-Care Additive Manufacturing of Ti Patient-Matched Implants: an Overview from Mayo Clinic

MODERATOR
Amy Alexander, *Mayo Clinic*

MAYO CLINIC PANELISTS
Robert Highet
Joel Kuhlmann
Sean McEligot
Allen Rech

3:00pm - 4:00pm

PRESENTATION (B,I,A)
Point of Care 3D Printing – Manufacturing within a Healthcare Facility
Jayanthi Parthasarathy
Nationwide Children's Hospital

4:30pm - 5:30pm

PANEL (A)
Quality Considertations for Additive Manufacturing in Healthcare

MODERATOR
Amy Alexander, *Mayo Clinic*

PANELIST
Sarah Rimini, *Geisinger Medical Center*
Peter Liacouras, *Walter Reed National Military Medical Center*
Todd Pietila, *Materialise*
Nicole Wake, *GE*

LAKE ERIE 8TH FLOOR — AM TECHNOLOGIES (NON-METAL)

1:30pm - 2:30pm

PRESENTATION (B,I,A)
Lithography-Based Ceramic Material Development and Characterization
Dale Cillessen
Sandia National Laboratories
Shawn Allan
Lithoz America

3:00pm - 4:00pm

PRESENTATION (A)
Fundamental Vat Photopolymerization Informed by the First-ever NIST Calibrated Uniform Light Engine
Callie Higgins
Jason Killgore
NIST

4:30pm - 5:30pm

PRESENTATION (I)
3DP Part Testing: A Nonscientific Guide Presented By A Sales Guy
Paul DeWys
Forerunner 3D Printing

PRESENTATION (I)
Simulation-Driven Design for Large-Scale Additive Manufacturing with Polymer Composites
Eduardo Barocio
Purdue University

PLATINUM SPONSOR PROGRAM

ASTORIA 3RD FLOOR — PLATINUM SESSIONS

1:30pm - 2:30pm

3D SYSTEMS
PRESENTATION (B)
Evolving AM with Ecosystem Innovation
David Leigh
3D Systems

3:00pm - 4:00pm

POSTPROCESS TECHNOLOGIES
PRESENTATION (30 MIN) (B)
Solving the Post-Printing Challenges for Resin Removal Applications
Dean VonBank
PostProcess Technologies

PRESENTATION (30 MIN) (B)
Utilizing Software in Post-Printing to Scale Up From Prototyping to Production
Rich Caplow
PostProcess Technologies

4:30pm - 5:30pm

TBA via mobile app

JOLIET ROOM 3RD FLOOR — PLATINUM SESSIONS

1:30pm - 2:30pm

MATERIALISE
PRESENTATION (I) METAL
Advancing Your Metal Workflow for Improved Success
Evan Kirby
Lucas Hellemans
Materialise

3:00pm - 4:00pm

ADDUP SOLUTIONS
PRESENTATION (I)
Optimizing Scan Strategy for Mass Automotive Production
Nick Estock
AddUp

4:30pm - 5:30pm

ARKEMA
PRESENTATION (30 MIN) (I)
High Temperature Additive Manufacturing Materials
Neil Cramer
Arkema

PRESENTATION (30 MIN) (I)
Advanced Bio-Circular Materials for Sustainable Production
Steve Serpe
Arkema

2:30pm - 3:00pm	AMUGexpo CLOSED	**BREAK** Location: Various Areas
4:00pm - 4:30pm		**TRANSITION**
5:30pm - 6:00pm		**ALL SESSIONS CLOSED**
6:00pm - 10:00pm	AMUGexpo OPEN 6:00pm - 10:00pm	**AMUGexpo Open** Location: Salon A, C, and D, Lower Level **Dinner and Networking** Location: Salon A, C, and D, Lower Level **Technical Competition** Location: Salon C, Lower Level

MONDAY, APRIL 4, 2022

TIME	SESSIONS AND ACTIVITIES							
7:00am - 8:00am								
8:00am - 10:00am								
10:00am - 10:30am								
10:30am - 12:00pm								
12:00pm - 1:15pm								
	BREAKOUT SESSIONS BEGIN							
	DIAMOND SPONSOR SESSIONS							
	INTERNATIONAL BALLROOM 2ND FLOOR	**CONTINENTAL C LOBBY LEVEL**	**WALDORF 3RD FLOOR**	**MARQUETTE 3RD FLOOR**	**WILLIFORD A 3RD FLOOR**	**WILLIFORD B 3RD FLOOR**	**WILLIFORD C 3RD FLOOR**	**PDR 2 3RD FLOOR**
	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION
1:30pm - 2:30pm	COVESTRO PRESENTATION (A) MATERIALS **Functional Applications? Select the Right Material!** Eric Romano *Covestro*	EXONE PRESENTATION (B) NON-METAL **How Sand Makes Metal and More** Rick Lucas *ExOne*	EOS PRESENTATION (B) EDUCATION **New-School Talent: How Rethinking Education Can Drive the Future of Manufacturing** Fabian Alefeld *EOS*	FORMLABS PRESENTATION (I) NON-METAL **Rapid Tooling With Formlabs SLA Engineering Resins** Juliette Combe *Formlabs*	DMG MORI PRESENTATION (B,I,A) METAL **Pushing Limits: New L-PBF Materials and Designs** Lennart Tasche *DMG MORI*	DYNDRITE **Dyndrite** *TBA via mobile app*	NEXA3D PRESENTATION (I) SOFTWARE **Design for LSPc** Brent Zollinger *Nexa3D*	CLOSED
2:30pm - 3:00pm	**BREAK** Location: Various Areas							
3:00pm - 4:00pm	STRATASYS PRESENTATION (I) NON-METAL **Building the Connected Additive Manufacturing Factory Floor** Victor Gerdes Kei Cheung *Stratasys*	COMPUTER AIDED TECHNOLOGY (CATI) PRESENTATION (I) NON-METAL **Bringing Additive Manufacturing Safely Into Your Space** Tim Crennen Jake Wenzel Simon Pinter *Computer Aided Technology (CATI)*	DESKTOP METAL PRESENTATION (B) NON-METAL **Advances in DLP Technology Allows for Mass Production in AM** Ethan Rejto *Desktop Metal*	TEKNA PRESENTATION (I) METAL **Production of AM parts for Aerospace Applications** Jérôme Pollak *Tekna* Kevin Engel *Incodema3D*	LUXCREO WORKSHOP (I) NON-METAL **Practical Guidance and Tools for Designing 3D Printed Elastic Products for High Volume Manufacturing** Michael Strohecker *LuxCreo*	ESSENTIUM PRESENTATION (I) MATERIALS **Fiber Reinforced Composite Materials Learning Lab** Tom Mulholland *Essentium, Inc*	FABWEAVER PRESENTATION (B) BUSINESS **Efficient Workflow Proposal for a Medium & Small-sized 3D-Print Shop** Kevin Kim Kidam Mun *fabWeaver*	CLOSED
4:00pm - 4:30pm	**TRANSITION**							
4:30pm - 5:30pm	HEXAGON PRESENTATION (A) NON-METAL **Data Management & Artificial Intelligence for Additive Manufacturing** Rani Harb *Hexagon*	HP 3D PRINTING PRESENTATION **HP 3D Printing: The Journey to Scale Production - Exec Presentation** Didier Deltort Guayente Sanmartin Wayne Davey *HP*	CLOSED	CLOSED	MELTIO PRESENTATION (30 MIN) (B,I,A) METALS **Metal AM Applications with the Meltio M450 and Engine** Brian Matthews *Meltio* PRESENTATION (30 MIN) (B,I,A) METALS **Dual Wire Metal AM with the Meltio M450 and Engine** Brian Matthews *Meltio*	GE ADDITIVE PRESENTATION (B,I,A) SOFTWARE **Using Software to Streamline the Additive Process** Nicolas Sabo *GE Additive*	QUICKPART **Quickparts** *TBA via mobile app*	CLOSED
5:30pm - 6:00pm	**ALL SESSIONS CLOSED**							
6:00pm - 10:00pm	AMUGexpo Open Location: Salon A, C, and D, Lower Level Dinner and Networking Location: Salon A, C, and D, Lower Level Technical Competition Location: Salon C, Lower Level							

TUESDAY, APRIL 5, 2022

REGISTRATION - SPEAKER CENTER - MOBILE APP DESK

Hours Open		Location
7:00am - 5:00pm	REGISTRATION and BADGE PICK-UP	Lobby Level
7:00am - 4:00pm	Speaker Center and Mobile App Desk Open	Lobby Level

SESSION LEVEL KEY B - BEGINNER
I - INTERMEDIATE
A - ADVANCED

General Sessions and Breakouts open to all Conference Attendees
Speakers, Dates and Times subject to change without notice
Updates made through mobile app

TIME	EXPO AREA	SESSIONS AND ACTIVITIES
7:00am - 8:00am	Diamond and Platinum Sponsors BOOTH AREA CLOSED	**BREAKFAST | TECHNICAL COMPETITION ENTRIES ON DISPLAY** — Location: Normandie Lounge and Grand Ballroom, Second Floor
8:00am - 8:30am		**International Report** — Stefan Ritt, AMUG International Committe Chair, *Fehrmann Alloys GmbH* — Location: International Ballroom, Second Floor
8:30am - 9:00am		**2022 DINO Awards | Distinguished INnovator Operator (DINO) |** Gary Rabinovitz, AMUG Director at Large, *Reebok International* and Shannon VanDeren, *Layered Manufacturing* — Location: International Ballroom, Second Floor
9:00am - 10:00am		**KEYNOTE:** Kevin Czinger, *Divergent 3D* — Location: International Ballroom, Second Floor
10:00am - 10:30am	Diamond and Platinum Sponsors BOOTH AREA OPEN	**BREAK** Location: Various Areas

BREAKOUT SESSIONS BEGIN

AMUG PROGRAM

CONTINENTAL A LOBBY LEVEL	BOULEVARD ROOM A/B 2ND FLOOR	CONTINENTAL B LOBBY LEVEL	BOULEVARD ROOM C 2ND FLOOR	LAKE ERIE 8TH FLOOR
AEROSPACE/TRANSPORTATION	MEDICAL & DENTAL	SCANNING & METROLOGY	EDUCATION & TRAINING	METAL CASTING
PANEL (B,I,A) **Department of Defense Panel Discussion** — **MODERATOR** Mike Pecota, *Navy* — **PANELIST** James Zunino, *Army*; Blake Johnson, *Airforce*; Josh Heller, *Navy*; Michael Guinn, *SOCOM*	**WORKSHOP (B,I,A)** **Interactive Workshop: ISO 13485 vs. 21 CFR 820 Registered for AM Devices** Dawn Lissy, Meredith May, *Empirical Technologies Corp.*	**PRESENTATION (45 MIN) (B,I,A)** **CT Scanning and Metrology for AM** Gil Flor, *North Star Imaging* — **PRESENTATION (45 MIN) (B,I,A)** **Implementing X-Ray Inspection for AM: A Phased Approach** Jacob Rickter, *Pinnacle X-Ray Solutions*	**PANEL (50 MIN) (I)** **How Higher Education Can Help Answer Additive Manufacturing Puzzle** — **MODERATOR** Adam Penna, *ASME* — **PANELIST** Yash Bandari, *AddiTec*; Eliana Fu, *Trumpf*; Frank Medina, *U of Texas El Paso* — **PRESENTATION (30 MIN) (B,I,A)** **Developing an Onramp for AM Workforce Training in Underserved Areas** Mike Vasquez, *3Degrees*	**PRESENTATION (B,I,A)** **Flexible Manufacturing For A Spacefaring World** David Weiss, *Eck Industries*

PLATINUM SPONSOR PROGRAM

ASTORIA 3RD FLOOR	JOLIET ROOM 3RD FLOOR
PLATINUM SESSIONS	PLATINUM SESSIONS
XACT METAL **PRESENTATION (30 MIN) (B)** **Performance Specifications Of An Affordable Metal 3D Printer** Dave Jankowski, *Xact Metal* — **PRESENTATION (30 MIN) (B)** **3D Metal Printing of Tooling** Dave Jankowski, *Xact Metal*	**CARBON** **PRESENTATION (I,A)** **Designing with Lattice to Make the Unmakeable** Jim Sauerbaum, *Carbon*; Michael Schmid, *inStryde*
CLOSED	CLOSED

10:30am - 11:00am	Diamond and Platinum Sponsors BOOTH AREA OPEN	
11:00am - 11:30am		
11:30am - 12:00pm		
12:00pm - 1:15pm	Diamond and Platinum Sponsors BOOTH AREA CLOSED	**NETWORKING LUNCH** Location: Normandie Lounge and Grand Ballroom, 2nd Floor AND Salon B Lower Level

BREAKOUT SESSIONS BEGIN

AMUG PROGRAM

CONTINENTAL A LOBBY LEVEL	BOULEVARD ROOM A/B 2ND FLOOR	CONTINENTAL B LOBBY LEVEL	BOULEVARD ROOM C 2ND FLOOR	LAKE ERIE 8TH FLOOR
AEROSPACE/TRANSPORTATION	AM TECHNOLOGIES (NON-METAL)	MATERIALS	EDUCATION & TRAINING	METAL CASTING
PRESENTATION (A) **Innovative Heat Exchangers NATHENA** Nicolas Correge, Charles-Antoine Salliou, *PrintSky a SOGECLAIR Group Company*	**PRESENTATION (30 MIN) (I)** **Cost Down Sustainable Additive Manufacturing with Blue Technology for Laser Sintering** Soeren Griessbach, Christian Folgar, *GS-Pro GmbH* — **PRESENTATION (30 MIN) (B,I,A)** **Thermally Stable AM Printed Molds/Fixtures Using Ambient Cured, Thermoset Print Media** Rick Pauer, *Polynt*	**PRESENTATION (I)** **Applying Machine Learning to Enable Rapid Material Property Allowables Development for AM** Annie Wang, *Senvol*; Chris Holshouser, *Aozora 3D*	**PRESENTATION (B,I,A)** **The Impacts of NFPA 484-2022 and Similar Standards on Additive Manufacturing Operations** Jason Reason, *Airdusco EDS*	**WORKSHOP/PANEL (B,I,A)** **Metallurgy 101 An Introduction Workshop into Ferrous and Non Ferrous Material Nomenclature** Thomas Sorovetz, *Casting Engineer*; Miranda Moschel, *Xerox* — *continues to Panel session*

PLATINUM SPONSOR PROGRAM

ASTORIA 3RD FLOOR	JOLIET ROOM 3RD FLOOR
PLATINUM SESSIONS	PLATINUM SESSIONS
MASSIVIT 3D **PRESENTATION (I,A)** **Digitalizing Tooling for Composite Materials with Advanced AM Technology** Ido Eylon, *Massivit 3D*	**TITAN ROBOTICS** **PRESENTATION (B,I,A)** **Pellet-Based Hybrid Additive and Subtractive Manufacturing** Bill Macy, Clay Guillory, Rahul Kasat, *Titan Robotics*

1:30pm - 2:30pm	Diamond and Platinum Sponsors BOOTH AREA OPEN 1:30pm-4:00pm	
2:30pm - 3:00pm		**BREAK** Location: Various Areas

AEROSPACE/TRANSPORTATION	AM METAL TECHNOLOGIES	MATERIALS	EDUCATION & TRAINING	METAL CASTING
PRESENTATION (I) **Scaling Quality from Development to Aerospace Additive Manufacturing: Pathway to Serial Production** Cameron Peahl, *Eaton Corporation*	**PRESENTATION (I)** **Metal AM Prospects in the Semiconductor Capital Equipment Manufacturing Industry** Ahmed Eldesouky, *Veeco Instruments*; Alaa Elwany, *Texas A&M University*	**PRESENTATION (30 MIN) (I)** **Nanoengineering for Additive Manufacturing Materials: Crushing the Formulation Improvement Wall** Olga Ivanova, Steven Lowder, *Mechnano* — **PRESENTATION (30 MIN) (B,I,A)** **Premium 3D-printing for Industry via Hot Lithography** Steffen Hachtel, *F&G Hachtel GmbH*; *Christian Gorsche, Cubicure GmbH*	**PANEL (B)** **Innovative Approaches for Accelerating AM Standardization** — **MODERATOR** Shane Collins, *ASTM* — **PANELIST** Madison Jones, *Additive at Scale*; Mike Schorr, *DyeMansion*; Zac Holcomb, *Additive America*	**PANEL (B,I,A)** **Additive Manufacturing of Metals and Traditional Metal Processes** — **MODERATOR** Thomas Sorovetz, *Casting Engineer* — **PANELIST** Dave Rittmeyer, *Hoosier Pattern*; Miranda Moschel, *Xerox*; Steve Murray, *Hoosier pattern*; Mike Hascher, *Eagle Engineered Solutions*

PLATINUM SPONSOR PROGRAM

ASTORIA 3RD FLOOR	JOLIET ROOM 3RD FLOOR
PLATINUM SESSIONS	PLATINUM SESSIONS
SIGMA LABS **PRESENTATION (30 MIN)** **Connected AM Workflow: Powder-to-Part** — **MODERATOR** Jacob Brunsberg, *Sigma Labs*; Sven Hinrichs, *AMFG* — **PRESENTATION (30 MIN) (I)** **Qualification and Certification: Machine, Process, Part** Alex Benham, *Sigma Labs*	**EVONIK** **PRESENTATION (30 MIN) (B,I,A)** **NON-METAL** **New Filled Powders for Enhanced Properties** Lisa-Maria Elmer, *Evonik Operations GmbH* — **PRESENTATION (30MIN) (B,I,A) BUSINESS** **Additive Manufacturing is Evolving. We Need to Work Together as an Industry** Alex Sant'Anna, *Evonik Corporation*

3:00pm - 4:00pm	Diamond and Platinum Sponsors BOOTH AREA CLOSES PROMPTLY at 4:00pm	
4:00pm - 5:00pm		**ALL SESSIONS CLOSED**
5:00pm - 5:30pm	BOOTH AREA CLOSED	Board Buses for Off-Site Dinner and Networking Event - *see mobile app for details*
6:30pm - 10:00pm		AMUG Off-Site Dinner and Networking Event

TUESDAY, APRIL 5, 2022

TIME	SESSIONS AND ACTIVITIES CONTINUED
7:00am - 8:00am	
8:00am - 8:30am	
8:30am - 9:00am	
9:00am - 10:00am	
10:00am - 10:30am	

BREAKOUT SESSIONS BEGIN

DIAMOND SPONSOR SESSIONS

TIME	INTERNATIONAL BALLROOM 2ND FLOOR DIAMOND SPEAKING SESSION	CONTINENTAL C LOBBY LEVEL DIAMOND SPEAKING SESSION	WALDORF 3RD FLOOR DIAMOND SPEAKING SESSION	MARQUETTE 3RD FLOOR DIAMOND SPEAKING SESSION	WILLIFORD A 3RD FLOOR DIAMOND TRAINING SESSION	WILLIFORD B 3RD FLOOR DIAMOND TRAINING SESSION	WILLIFORD C 3RD FLOOR DIAMOND TRAINING SESSION	PDR 2 3RD FLOOR DIAMOND TRAINING SESSION
10:30am - 11:00am 11:00am - 11:30am	LUXCREO PRESENTATION (I) NON-METAL **Clash of the 3D Printing Titans: Fiber reinforcement vs High-Performance Photopolymers. Who will win?** Michael Strohecker *LuxCreo*	DYNDRITE PRESENTATION (I) NON-METAL **Light Engine Hardware Outpaced Software, Materials and Process Development** Harshil Goel Steve Walton Stephen Anderson *Dyndrite Corporation* Gareth Neal *Xaar*	ESSENTIUM PRESENTATION (B,I) AEROSPACE **Manufacturing Lessons from the Warfighter** Elisa Teipel *Essentium, Inc.*	FABWEAVER PRESENTATION (30 MIN) (I) **Maximizing Use of PA12** Bart Van Der Schueren *Materialise* PRESENTATION (30 MIN) (I) **Maximizing Use of PA12** Bart Van Der Schueren *Materialise*	TEKNA PRESENTATION (I) METAL **From Requirements to Qualified Parts – Selecting the Right Powder for AM** Jean-François Carrier *Tekna*	DESKTOP METAL PRESENTATION (30 MIN) (B) MATERIALS **Material Versatility in Binder-Jet 3D Printing** Francois Dary *Desktop Metal* PRESENTATION (30 MIN) (B) MATERIALS **Binder Jetting of Reactive Materials : Spotlight on Improving Dimensional Control** Patrick Dougherty *Desktop Metal*	COMPUTER AIDED TECHNOLOGY (CATI) WORKSHOP (B,I,A) NON-METAL **Snap, Crack & Pop: Hands-on Material Testing** Tim Crennen Simon Pinter Jake Wenzel *Computer Aided Technology (CATI)*	STRATASYS PRESENTATION (30 MIN) (B,I,A) NON-METAL **Polymer PBF Requirements for Mainstream Production** Adam Ellis, Tim Heller *Stratasys* PRESENTATION (30 MIN) (I,A) MEDICA **Optimizing Design Structures with the Digital Anatomy™ Printer** Evan Hochstein, David Yang *Stratasys*
11:30am - 12:00pm	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
12:00pm - 1:15pm	**NETWORKING LUNCH** Location: Normandie Lounge and Grand Ballroom, 2nd Floor AND Salon B Lower Level							

BREAKOUT SESSIONS BEGIN

DIAMOND SPONSOR SESSIONS

TIME	INTERNATIONAL BALLROOM 2ND FLOOR DIAMOND SPEAKING SESSION	CONTINENTAL C LOBBY LEVEL DIAMOND SPEAKING SESSION	WALDORF 3RD FLOOR DIAMOND SPEAKING SESSION	MARQUETTE 3RD FLOOR DIAMOND SPEAKING SESSION	WILLIFORD A 3RD FLOOR DIAMOND TRAINING SESSION	WILLIFORD B 3RD FLOOR DIAMOND TRAINING SESSION	WILLIFORD C 3RD FLOOR DIAMOND TRAINING SESSION	PDR 2 3RD FLOOR DIAMOND TRAINING SESSION
1:30pm - 2:30pm	DMG MORI PANEL (B,I,A) METAL **User Panel: Overcoming Hybrid DED Entry Barriers** MODERATOR Robert Chiari, *DMG MORI* PANELIST Glen Drebes, *US Airforce, Tinker AFB* Robert Andrews, *PROENERGY* *Jeffrey Crandall, Connecticut Center for Advanced Technology*	GE ADDITIVE ROUNDTABLE (B,I,A) AEROSPACE **Bringing Metal Additive Airworthiness to the Warfighter** Mark Shaw *GE Additive* Lauren Tubesing *GE Additive*	MELTIO ROUNDTABLE (B,I) NON-METAL **Metal Additive Manufacturing Trends** Brian Matthews *Meltio* Andrew Allshorn *@3D-Squared*	CLOSED	HEXAGON WORKSHOP (B,I,A) SCANNING **Dimensional Compensation from Simulation and Scan Workshop** Roger Wende *Hexagon*	HP 3D PRINTING PRESENTATION **Achieving Class-A Surface Quality with Plastic Powder Bed Fusion** Wesley Kramer *HP Personalization & 3D Printing*	FORMLABS WORKSHOP (A) NON-METAL **Rapid Injection Mold Tooling with Formlabs** Juliette Combe *Formlabs*	CLOSED
2:30pm - 3:00pm	**BREAK** Location: Various Areas							
3:00pm - 4:00pm	NEXA3D PRESENTATION (I) NON-METAL **The Evolution of Resin 3D Printing to Ultrafast Capabilities** Izhar Medalsy *Nexa3D*	QUICKPARTS **Quickparts** *TBA via mobile app*	CLOSED	CLOSED	COVESTRO WORKSHOP (I) MATERIALS **Stereolithography - How to Improve Process and Yield** John Schaefer Andrew Graves *Covestro*	EXONE PRESENTATION (B) EDUCATION **Accelerating Advanced Manufacturing Adoption in the US** Barry Hulce *Vermont Manufacturing Collaborative at VTC* PANEL (I) MATERIALS **Ceramic Heat Exchangers with Binder Jetting** Jesse Blacker *ExOne*	EOS WORKSHOP (B,I,A) EDUCATION **Defining Sustainability Along the Additive Manufacturing Value Chain** David Krzeminski Fabian Alefeld *EOS*	CLOSED
4:00pm - 5:00pm	**ALL SESSIONS CLOSED**							
5:00pm - 5:30pm	Board Buses for Off-Site Dinner and Networking Event - *see mobile app for details*							
6:30pm - 10:00pm	AMUG Off-Site Dinner and Networking Event							

WEDNESDAY, APRIL 6, 2022

REGISTRATION - SPEAKER CENTER - MOBILE APP DESK

Hours Open		Location
7:00am - 6:00pm	REGISTRATION and BADGE PICK-UP	Lobby Level
7:00am - 4:00pm	Speaker Center and Mobile App Desk Open	Lobby Level

SESSION LEVEL KEY B - BEGINNER I - INTERMEDIATE A - ADVANCED

General Sessions and Breakouts open to all Conference Attendees
Speakers, Dates and Times subject to change without notice
Updates made through mobile app

TIME	EXPO AREA	SESSIONS AND ACTIVITIES
7:30am - 8:30am	Diamond and Platinum Sponsors BOOTH AREA CLOSED	**BREAKFAST** — Location: Normandie Lounge and Grand Ballroom, Second Floor
8:30am - 9:00am		**2021 TECHNICAL COMPETITION WINNERS PRESENTATIONS** — Location: International Ballroom, Second Floor **Advanced Concepts** | "BAAM Dam. Leveraging Large Format AM for Community Hydroelectric Applications" Vito Gervasi, *Cadens LLC* **Advanced Finsihing** | "Death: A Horseman's Journey" Bill Braune, *Dinsmore*
9:00am - 10:00am		**INNOVATORS SHOWCASE** — Location: International Ballroom, Second Floor Andy Christensen
10:00am - 10:30am		**BREAK** — Location: Normandie Lounge and Grand Ballroom, Second Floor
10:30am - 11:00am		**2022 TECHNICAL COMPETITION | Advanced Concepts and Advanced Finishing Winners Announced** | Bonnie Meyer, *AMUG Technical Competition Chair* — Location: International Ballroom, Second Floor
11:00am - 11:45am		**AMUG BUSINESS MEETING** Official AMUG Board Meeting of the Members, Vince Anewenter, *AMUG Treasurer,* Leslie Frost, *AMUG Secretary,* and Thomas Sorovetz, *AMUG Director Events and Hospitality* 2022 - 2024 AMUG Board of Directors Announced, Paul Bates, *AMUG Past President*
11:45am - 12:00pm		**2022 TECHNICAL COMPETITION | Members Choice Winner Announced**
12:00pm - 1:15pm		**NETWORKING LUNCH** — Location: Normandie Lounge and Grand Ballroom, 2nd Floor AND Salon B Lower Level

BREAKOUT SESSIONS BEGIN

AMUG PROGRAM

CONTINENTAL A LOBBY LEVEL	BOULEVARD ROOM A/B 2ND FLOOR	CONTINENTAL B LOBBY LEVEL	BOULEVARD ROOM C 2ND FLOOR	LAKE ERIE 8TH FLOOR
AM METAL TECHNOLOGIES	MEDICAL & DENTAL	SOFTWARE	EDUCATION & TRAINING	METAL CASTING
PRESENTATION (B,I,A) **Introduction to Directed Energy Deposition** Jeffrey Crandall *Connecticut Center for Advanced Technology*	PRESENTATION (B,I,A) **Demonstration of DICOM Segmentation for 3D Printing** Robert Wesley *Ricoh USA*	PANEL (I) **MES Panel Discussion** MODERATOR Kevin Ayers PANELIST Andre Wegner, *Authentise* Dave Flynn, *Materialise* Danny Winn, *AMFG* Alex Donnadieu, *3YOURMIND* John Dogru, *3DPrinterOS*	WORKSHOP (B) **Silicone Molding and Urethane Casting Workshop Part 1** Bill Molitor Terry McGinnis *Rampf Group, Inc.*	PRESENTATION **3D Metal Printing, AM-based Castings or CNC Machining for Prototypes? - Choosing the Right Process for Success** Thomas Becker *ACTech*
BREAK Location: Various Areas				
PANEL (B) **Founders Panel – Navigating a Startup in Metal AM** MODERATOR Melanie Lang, *FormAlloy* PANELIST John Barnes, *Metal Powder Works* Youping Gao, *Castheon* Ivan Madera, *Morph3D*	PRESENTATION (B,I,A) **How to Build a Point of Care Manufacturing Center at a University** Edward Herderick *The Ohio State University*	PRESENTATION (B,I,A) **Evaluating and Creating an Effective Software Workflow** Tryggve Rogers *Beehive3D*	PRESENTATION (B,I,A) **How to Make Additive Manufacturing Work: DFAM, Tips and Lessons Learned** Glen Desmier *Inductoheat Inc*	PRESENTATION (I) **3D Binder Jetting – Sand Casting Applications for Production** Brandon Lamoncha *Humtown Additive*
TRANSISTION				
AM METAL TECHNOLOGIES	MEDICAL & DENTAL	MATERIALS	EDUCATION & TRAINING	AM TECHNOLOGIES (NON-METAL)
PANEL (I) **The Future of Large-Scale Metal AM** MODERATOR John Barnes, *Metal Powder Works* PANELIST Melanie Lang, *FormAlloy* Slade Gardner, *Big Metal Additive* Caitlin Walde, *Solvus Global* Paul Gradl, *NASA*	PRESENTATION (B,I,A) **Medical 3D Printing Within the DOD and VHA: Past, Present, and Future** Peter Liacouras *Walter Reed National Military Medical Center* Beth Ripley, *VHA*	PRESENTATION (I) **Benefits of Integrated Computational Materials Engineering Technologies in Additive Manufacturing** Ronald Adams *QuesTek*	PANEL (B,I,A) **AM Equipment Benchmarking Considerations** MODERATOR Alex Roschli, *Oak Ridge National Laboratory* PANELIST Ben Arnold, *Massivit 3D* Tim Heller, *Stratasys* Dave Macfie, *Cimquest* Meghan Rock, *Desktop Metal*	PRESENTATION (A) **Open Platform Advantages and 3D Adoption by Injection Molders** Haleyanne Freedman *M. Holland*

PLATINUM SPONSOR PROGRAM

ASTORIA 3RD FLOOR	JOLIET ROOM 3RD FLOOR
PLATINUM SESSIONS	PLATINUM SESSIONS
1:30pm - 2:30pm 3DXTECH **3DXTECH** *TBA via mobile app*	EQUISPHERES PRESENTATION (B) AUTO/TRANS **How Feedstock Improves Productivity for Automotive Parts** Evan Butler-Jones Marinus Kolbinger *Equispheres*
3YOURMIND PRESENTATION **Calculating the Unseen Costs of AM Workflows: How Inefficiencies Impact Your Business** Stephan Kühr *3YOURMIND*	OQTON PRESENTATION (30 MIN) (B,I) SOFTWARE AND DESIGN **Intelligent Manufacturing OS for AM: The Vision** Ben Schrauwen *Oqton* PRESENTATION (30 MIN) (I,A) METAL **How to Successfully Print Conformal Lattice Design** Kirill Volchek *Oqton*
PLATINUM SESSIONS	PLATINUM SESSIONS
XEROX PRESENTATION (I) METAL **ElemX Liquid Metal AM: Simpler, Safer & Faster** Bender Kutub, *Xerox Elem Additive* PRESENTATION (I) METAL **ElemX User Experience & Application Dive** Denis Cormier, Rochester Institute of Technology | AM Print Center	BOSTON MICRO FABRICATION PRESENTATION (I) NON-METAL **Micro 3D Printing: Enabling Miniaturization at TE Connectivity** John Kawola *Boston Micro Fabrication* Xiaoming Luo *TE Connectivity*

1:30pm - 5:30pm	Diamond and Platinum Sponsors BOOTH AREA OPEN 1:30pm-5:30pm	
5:30pm - 6:00pm		**ALL SESSIONS CLOSED**
6:00pm - 10:00pm	BOOTH AREA CLOSED	It's the Roaring 20s Dinner and Evening Activites Location: Normandie Lounge and Grand Ballroom, Second Floor

WEDNESDAY, APRIL 6, 2022

TIME	SESSIONS AND ACTIVITIES CONTINUED
7:30am - 8:30am	
8:30am - 9:00am	
9:00am - 10:00am	
10:00am - 10:30am	
10:30am - 12:00pm	
12:00pm - 1:15pm	

BREAKOUT SESSIONS BEGIN

DIAMOND SPONSOR SESSIONS

	INTERNATIONAL BALLROOM 2ND FLOOR	CONTINENTAL C LOBBY LEVEL	WALDORF 3RD FLOOR	MARQUETTE 3RD FLOOR	WILLIFORD A 3RD FLOOR	WILLIFORD B 3RD FLOOR	WILLIFORD C 3RD FLOOR	PDR 2 3RD FLOOR
	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION
1:30pm - 2:30pm	EOS PRESENTATION (I,A) METAL **Outlook on Future Applications Enabled by DMLS Technology** Ankit Saharan *EOS*	TEKNA PRESENTATION (B) NON-METAL **Production of AM parts for Medical Applications** Kaoutar Bensaid *Tekna* Matt Shomper *Tangible Solutions*	COMPUTER AIDED TECHNOLOGY (CATI) PRESENTATION (B,I) SCANNING/ METROLOGY **3D Scanning for Reverse Engineering: Facts vs. Fiction** Cullen Williams Sam Cheney Judah Sher *Computer Aided Technology (CATI)*	HEXAGON PRESENTATION (I,A) NON-METAL **Improving Dimensional: Compensation from Simulation and Scan** Roger Wende Jeff Robertson *Hexagon*	LUXCREO WORKSHOP (I) NON-METAL **No More Polishing! Learn How LuxCreo Digital Polishing Automation is Simplifying Dental Clear Aligners and Other Applications** Michael Strohecker *LuxCreo*	ESSENTIUM PRESENTATION (I) NON-METAL **Unlocked Applications With Dual Extrusion** Garrett Harmon *Essentium, Inc.*	DYNDRITE **Dyndrite** *TBA via mobile app*	CLOSED
2:30pm - 3:00pm	**BREAK** Location: Various Areas							
3:00pm - 4:00pm	DESKTOP METAL PRESENTATION (B,I) AEROSPACE **Advancing AM 2.0 with 3-Phase Industrialization Program** Ben Fisk *Desktop Metal*	COVESTRO PRESENTATION (B) NON-METAL **Covestro** *TBA via mobile app*	EXONE PRESENTATION (30 MIN) (B) METAL **3D Printed Copper Accelerating Electric Vehicle Development** Michael Paritee *Maxxwell Motors* PRESENTATION (30 MIN) (B) METAL **Achieving Large Scale Metal Binder-Jet Production** Paul Hauck *SSI Sintered Specialties*	STRATASYS PRESENTATION (I) NON-METAL **Overcoming Large Geometry Challenges In DLP 3D Printing** Marshall Ling *Stratasys (Origin P3)*	DMG MORI PRESENTATION (B,I,A) METAL **Pushing Limits: New L-PBF Materials and Designs** Lennart Tasche *DMG MORI*	FABWEAVER PRESENTATION (B) BUSINESS **Efficient Workflow Proposal for a Medium & Small-sized 3D-Print Shop** Kevin Kim Kidam Mun *fabWeaver*	NEXA3D PRESENTATION (I) EDUCATION **The Realities of Truly Rapid 3D Printing with mSLA at the Desktop** Jake Kapusta *Nexa3D*	CLOSED
4:00pm - 4:30pm	**TRANSITION**							
4:30pm - 5:30pm	FORMLABS PRESENTATION (B) NON-METAL **Formlabs and Vital Auto Case Study** Adam Hourigan *Formlabs*	CLOSED	HP 3D PRINTING PRESENTATION (I) METAL **Mass Production Part Design for Metal Jet Process** Harish Irrinki Paul Lee *HP Personalization & 3D Printing*	CLOSED	GE ADDITIVE PRESENTATION (I) METAL **Metal Binder Jet Process Development** Ted Anderson *GE Additive*	MELTIO PRESENTATION (30 MIN) (B,I,A) **Multi-Axis Robotic Additive Manufacturing with the Meltio Engine** Brian Matthews *Meltio* PRESENTATION (30 MIN) (B,I,A) METALS **Hybrid Additive Manufacturing with the Meltio Engine** Brian Matthews *Meltio*	QUICKPARTS **Quickparts** *TBA via mobile app*	CLOSED
5:30pm - 6:00pm	ALL SESSIONS CLOSED							
6:00pm - 10:00pm	It's the Roaring 20s Dinner and Evening Activites Location: Normandie Lounge and Grand Ballroom, Second Floor							

THURSDAY, APRIL 7, 2022

REGISTRATION - SPEAKER CENTER - MOBILE APP DESK

Hours Open		Location
7:00am - 11:00am	REGISTRATION and BADGE PICK-UP	Lobby Level
7:00am - 2:00pm	Speaker Center and Mobile App Desk Open	Lobby Level

SESSION LEVEL KEY B - BEGINNER
I - INTERMEDIATE
A - ADVANCED

General Sessions and Breakouts open to all Conference Attendees
Speakers, Dates and Times subject to change without notice
Updates made through mobile app

TIME	EXPO AREA	SESSIONS AND ACTIVITIES
7:30am - 8:30am	Diamond and Platinum Sponsors BOOTH AREA CLOSED	**BREAKFAST** Location: Normandie Lounge and Grand Ballroom, Second Floor
8:30am - 9:00am		**AMUG MEMBER INSIGHTS - BOARD PANEL DISCUSSION** | Andrew Allshorn, *AMUG Vice President*, and Tim Bell, *AMUG Dir. Business Development* Location: International Ballroom, Second Floor
9:00am - 10:00am		**KEYNOTE:** Ellen Lee *Ford Motor Company* Location: International Ballroom, Second Floor
10:00am - 10:30am		**BREAK** Location: Various Areas

BREAKOUT SESSIONS BEGIN

AMUG PROGRAM

CONTINENTAL A LOBBY LEVEL — AEROSPACE/TRANSPORTATION

PRESENTATION (I)
Additive Manufacturing Application Selection at General Motors
Brennon White
General Motors

BOULEVARD ROOM A/B 2ND FLOOR — MEDICAL & DENTAL

PRESENTATION (B,I,A)
FDA Regulatory Update (since AMUG 2020) on Additive Manufactured Devices
Dawn Lissy
Empirical Technologies Corp.

CONTINENTAL B LOBBY LEVEL — MATERIALS

INTERACTIVE ROUNDTABLE (45 MIN) (B,I,A)
The Future of Photopolymer Materials
MODERATOR
Nate Schumacher, *Midwest Prototyping*
ROUNDTABLE PANEL
Amelia Davenport, *Arkema*
Andrew Graves, *Covestro*
Olga Ivanova, *Mechnano*
Francois Minec, *BASF*

INTERACTIVE ROUNDTABLE (45 MIN) (B,I,A)
Innovation in AM Materials
MODERATOR
Nate Schumacher, *Midwest Prototyping*
ROUNDTABLE PANEL
Cody Burke, *PrintParts*
Guillaume de Calan, *Nanoe*
Salvador Ortega, *Natureworks*
Ron Adams, *QuesTek*

BOULEVARD ROOM C 2ND FLOOR — EDUCATION & TRAINING

WORKSHOP (B)
Silicone Molding and Urethane Casting Workshop Part 2
Bill Molitor
Terry McGinnis
Rampf Group, Inc.

LAKE ERIE 8TH FLOOR — AM TECHNOLOGIES (NON-METAL)

WORKSHOP (B,I,A)
Beyond Adhesives - Hands on Workshop for Assembling 3D Printed Plastics
Kyle Harvey
Andrew Roderick
Zac Lempicki
Extol Inc.
Jeremy Vos, *BASF*

PLATINUM SPONSOR PROGRAM

ASTORIA 3RD FLOOR — PLATINUM SESSIONS

WURTH ADDITIVE GROUP
ROUNDTABLE (I) EDUCATION
Impact of 3D Printing on the Environment
AJ Strandquist
Würth Additive Group
Brian Durand
Loctite Additive Manufacturing

CLOSED

JOLIET ROOM 3RD FLOOR — PLATINUM SESSIONS

ARBURG
PRESENTATION (B,I,A) NON-METALS
WeatherTech: Additive Fuels Products Made in America
Anne Crawford, *WeatherTech*
Gerry Berberian, *Arburg Inc*

CLOSED

10:30am - 11:00am	Diamond and Platinum Sponsors BOOTH AREA OPEN 10:30am-1:30pm NETWORKING LUNCH IN AREA 12:00PM-1:15PM	
11:00am - 11:30am		
11:30am - 12:00pm		
12:00pm - 1:15pm		**NETWORKING LUNCH** Location: AMUGexpo area in Salon A, C, and D on Lower Level

BREAKOUT SESSIONS BEGIN

AMUG PROGRAM

CONTINENTAL A LOBBY LEVEL — AEROSPACE/TRANSPORTATION

PRESENTATION (B,I,A)
Industrial AM for UAS Defense: the "Dirty Reality" of AM Implementation
Steve Fournier
Brent Hansen
General Atomics Aeronautical Systems Inc

BOULEVARD ROOM A/B 2ND FLOOR — SOFTWARE

PANEL (I)
Computational Design Panel
MODERATOR
Zac Holcomb, *Additive America*
PANELIST
Michael Bogomolny, *Paramatters*
Alex Rhoades, *General Lattice*
Christopher Robinson, *Ansys*
Matt Shomper, *Tangible Solutions*

CONTINENTAL B LOBBY LEVEL — MATERIALS

WORKSHOP (B,I,A)
Materials Test Lab
WORKSHOP FACILITATORS
Filip Francqui, *Granutools*
John Barnes, *Metal Powder Works*
Jim Wise, *Midwest Prototyping*
Megan Contreras, *Midwest Prototyping*

BOULEVARD ROOM C 2ND FLOOR — EDUCATION & TRAINING

PRESENTATION (I)
Design for 3D Printing - Tips, Tricks & Techniques
Mark Abshire
Applications Engineer Emeritus

LAKE ERIE 8TH FLOOR — AM TECHNOLOGIES (NON-METAL)

WORKSHOP (B)
Post-Process Workshop
WORKSHOP LEADERS
Colton Rooney, *EMI Corp*
Ed Graham, *ProtoCAM*
Nate Schumacher, *Midwest Prototyping*
Ed Herderick, *Ohio State University*
Luis Fulgar, *AMT Technologies*
Daniel Hutchinson, *PostProcess Technologies*

PLATINUM SPONSOR PROGRAM

ASTORIA 3RD FLOOR — PLATINUM SESSIONS

DYEMANSION
PRESENTATION (I) NON-METALS
Breaking the Ice – Mass Customized Hockey Helmets
Lester Hitch, *DyeMansion*
Jon Walker, *EOS*
Thierry Krick, *Bauer Hockey*

JOLIET ROOM 3RD FLOOR — PLATINUM SESSIONS

RENISHAW
PRESENTATION (I,A) METAL
The Benefits of Porosity in AM
Vincent Palumbo
Mott Corporation

1:30pm - 2:30pm	Diamond and Platinum Sponsors BOOTH AREA CLOSED SPONSORS BEGIN MOVE-OUT	
2:30pm - 3:00pm		**BREAK** Location: Various Areas

CONTINENTAL A LOBBY LEVEL — AEROSPACE/TRANSPORTATION

PRESENTATION (B,I,A)
Beryllium Additive Manufacturing
Andrew Ruzek
Materion

TRANSITION

PRESENTATION (B,I,A)
Additive Manufacturing in the Transit Industry
Brett Heher, *Wabtec*

BOULEVARD ROOM A/B 2ND FLOOR — AM METAL TECHNOLOGIES

WORKSHOP - HANDS-ON (B)
Design With The End In Mind – Metal AM Support Removal Workshop
Scott Volk
Carolyn Allan
Keselowski Advanced Manufacturing

CONTINENTAL B LOBBY LEVEL — SCANNING

WORKSHOP/PANEL (B,I,A)
Scanning for Reverse Engineering and Design
Introduction to reverse engingineering presentation follwed by Panel session
MODERATOR
Giles Gaskell, *Hexagon*
PANELIST
Derek Ellis, Authentise
Gregory George, *Oqton*
Bob Renella, *CATI*
Doug Schueneman, *Hexagon*

BOULEVARD ROOM C 2ND FLOOR — EDUCATION & TRAINING

WORKSHOP (B,I,A)
Casting Flexible Urethanes in Rigid 3D Printed Molds
Siyani McFall
Boeing

LAKE ERIE 8TH FLOOR — METAL CASTING

WORKSHOP (B,I,A)
Foundry in a Box
Dave Rittmeyer
Steve Murray
Hoosier Pattern Inc.

ASTORIA 3RD FLOOR — PLATINUM SESSIONS

SANDVIK
PRESENTATION (30 MIN) (I)
Metal Powders and Cemented Carbide for Binder Jetting
Paul Davies, Eleonora Bettini, Magnus Bostrom, *Sandvik*
PANEL (30 MIN) (I)
Titanium and Cobalt-Chrome for Medical and Dental Applications
Paul Davies, *Sandvik*

NANO DIMENSION
PRESENTATION (I) NON-METAL
Understanding MicroAM and Additively Manufactured Electronics (AME)
Lishan Mu
Nano Dimension

JOLIET ROOM 3RD FLOOR — PLATINUM SESSIONS

MARKFORGED
PRESENTATION (30 MIN) (I)
Securely Scaling the Digital Forge
Nate Washor
Markforged
PRESENTATION (30 MIN) (I)
Quality Tools for Flow Reduction in Aerospace
Chloe McGuffin, *Markforged*

SIEMENS
PRESENTATION (30 MIN) (I,A) METAL
Digital Certification of AM Components Utilizing In-Situ and Ex-Situ Data
Tim Bell, Anand Kulkarni, *Siemens*
PRESENTATION (30 MIN) (I,A) SOFTWARE
Advanced Software Applications for Additive Manufacturing
Ashley Eckhoff
Siemens Digital Industries Software

3:00pm - 4:00pm		
4:00pm - 4:30pm		
4:30pm - 5:30pm		
5:30pm		ALL SESSIONS CLOSED
6:00pm - 10:00pm		Family Dinner and Offical Closing of the AMUG Conference Location: Normandie Lounge and Grand Ballroom, Second Floor

THURSDAY, APRIL 7, 2022

TIME	SESSIONS AND ACTIVITIES CONTINUED
7:30am - 8:30am	
8:00am - 8:30am	
9:00am - 10:00am	
10:00am - 10:30am	

BREAKOUT SESSIONS BEGIN

DIAMOND SPONSOR SESSIONS

INTERNATIONAL BALLROOM 2ND FLOOR	CONTINENTAL C LOBBY LEVEL	WALDORF 3RD FLOOR	MARQUETTE 3RD FLOOR	WILLIFORD A 3RD FLOOR	WILLIFORD B 3RD FLOOR	WILLIFORD C 3RD FLOOR	PDR 2 3RD FLOOR
DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION
10:30am - 11:00am **11:00am - 11:30am** ESSENTIUM PRESENTATION (I) NON-METALS **The Relevancy of Material Extrusion 3D Printing** Tom Mulholland *Essentium, Inc.*	DMG MORI PRESENTATION (B,I,A) METAL **Evolution of Repair with Directed Energy Deposition** Nils Niemeyer *DMG MORI*	NEXA3D PRESENTATION (I) MATERIALS **Material Developments in Resin 3D Printing** Kevin McAlea *Nexa3D*	LUXCREO PRESENTATION (B) NON-METAL **High-Performance Photopolymers Transforming Medical, Consumer, and Industrial Products** Michael Strohecker *LuxCreo*	TEKNA PRESENTATION (I) METAL **Flowability and Impact of Humidity in AM Powders** Xavier Cauchy *Tekna*	STRATASYS PRESENTATION (I,A) SCANNING & METROLOGY **Digital X-Ray: In-Process Data Collection & Analysis** Mike Bosveld *Stratasys*	HEXAGON PANEL (B,I) METAL **How to Effectively Industrialize Additive Manufacturing** MODERATOR Giles Gaskell, *Hexagon* PANEL *TBA via mobile app*	COVESTRO WORKSHOP (I) MATERIALS **Stereolithography - How to Improve Process and Yield** John Schaefer Mike Scianna *Covestro*
11:30am - 12:00pm	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
12:00pm - 1:15pm	**NETWORKING LUNCH** Location: AMUGexpo area in Salon A, C, and D on Lower Level						

BREAKOUT SESSIONS BEGIN

DIAMOND SPONSOR SESSIONS

INTERNATIONAL BALLROOM 2ND FLOOR	CONTINENTAL C LOBBY LEVEL	WALDORF 3RD FLOOR	MARQUETTE 3RD FLOOR	WILLIFORD A 3RD FLOOR	WILLIFORD B 3RD FLOOR	WILLIFORD C 3RD FLOOR	PDR 2 3RD FLOOR
DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND SPEAKING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION	DIAMOND TRAINING SESSION
1:30pm - 2:30pm DYNDRITE PRESENTATION (I) NON-METAL **Jetting Hardware Outpaced Software, Materials and Process Development** Harshil Goel Steve Walton Stephen Anderson *Dyndrite Corporation* Gareth Neal *Xaar*	FABWEAVER PRESENTATION (I) NON-METALS **3D Printing for Mass Production in Asia** Thomas Kim *fabWeaver*	MELTIO PRESENTATION (30 MIN) (B,I,A) **Why Metal Additive Manufacturing Hasn't Succeeded in the Industrial Sectors in the Last 20 Years** Brian Matthews *Meltio* PRESENTATION (30 MIN) (B,I,A) **Design Guidelines for Laser Wire DED** Brian Matthews, *Meltio*	CLOSED	FORMLABS WORKSHOP (I) NON-METAL **Accessible Approach to High Performance SLS Printing** Chris Haid *Formlabs*	EOS WORKSHOP (B,I,A) EDUCATION **Defining Sustainability Along the Additive Manufacturing Value Chain** David Krzeminski Fabian Alefeld *EOS*	EXONE PRESENTATION (I) NON-METAL **Durability of 3D Printed Sand Tooling – Case Study Presentation** Bob Wood *ExOne* PRESENTATION (B) METAL **Fundamentals of Binder Jet Printing** Gabe Doman *ExOne*	DESKTOP METAL PRESENTATION (30 MIN) (B) METAL **Transforming Metal Manufacturing with Binder Jet Printing** Chris Aiello, *FreeFORM Technologies* PRESENTATION (30 MIN) (B) MATERIALS **Why a 227-year Old Company Decided to Invest in Additive Manufacturing** Neil Glazebrook *American Banknote Corporation*
2:30pm - 3:00pm	**BREAK** Location: Various Areas						
3:00pm - 4:00pm	QUICKPARTS **Quickparts** *TBA via mobile app*	GE ADDITIVE PRESENTATION (B,I,A) MATERIALS **Need for Speed & Heat: Production-Ready Titanium Parameters** Javier Arreguin Zavala *AP&C, a GE Additive company* PRESENTATION (B,I,A) MEDICAL AND DENTAL **Lattice Structures and Medical Implants** Ted Anderson, *GE Additive*	CLOSED	CLOSED	COMPUTER AIDED TECHNOLOGY (CATI) PRESENTATION (B) NON-METAL **Seven Printer Hacks You Wish You Knew** *Shuvom Ghose* *Stratasys*	CLOSED	HP 3D PRINTING PRESENTATION **E2E Cost Optimization for Production at Scale. Featuring HP's Automatic Unpacking Station** Oscar Laucirica Gino Balistreri *HP*	CLOSED
4:00pm - 4:30pm	**TRANSISTION**						
4:30pm - 5:30pm	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
5:30pm	ALL SESSIONS CLOSED						
6:00pm - 10:00pm	Family Dinner and Offical Closing of the AMUG Conference Location: Normandie Lounge and Grand Ballroom, Second Floor						

AMUGEXPO

AMUGEXPO HOURS

Sunday, April 3, 2022 — 4:00pm - 10:00pm
Networking Dinner in AMUGexpo area

Monday, April 4, 2022 — 10:00am - 2:30pm
12:00pm - 1:15pm Networking lunch in AMUGexpo area

Monday, April 4, 2022 — 6:00pm - 10:00pm
Networking Dinner in AMUGexpo area

Exhibitors and Gold sponsors move out on Monday night.
Make sure to plan your time at the conference to see them all!

DIAMOND AND PLATINUM SPONSORS ONLY

Diamond and Platinum booths area open throughout the week.

Tuesday, April 5	10:00am - 12:00pm
Tuesday, April 5	1:30pm - 4:00pm
Wednesday, April 6	1:30pm - 5:30pm
Thursday, April 7	10:30am - 1:30pm
	12:00pm - 1:15pm Networking Lunch in the booth area.

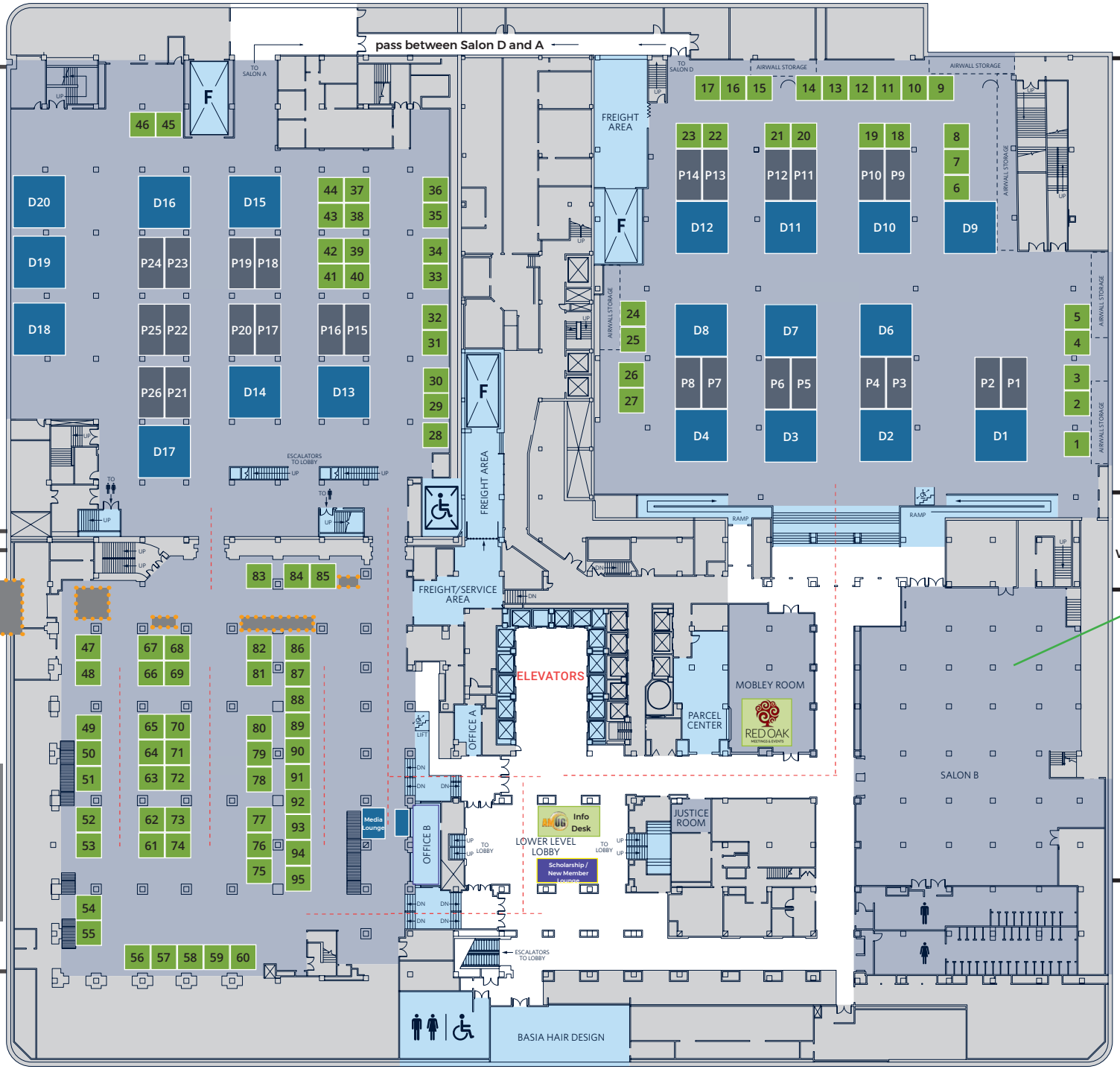
COMPANY (ALPHABETICAL ORDER)	BOOTH
3D Control Systems	20
3D Systems	P17
3DCeram Sinto USA	61
3Degrees	42
3DXTECH LLC	P23
3YOURMIND	P4
6K Additive	31
Aalberts surface technologies-Accurate Brazing	74
Additive Industries North America Inc	14
Additive Monitoring Systems	21
AddUp	P22
Aligned Vision	56
AlphaSTAR	36
AM POLYMERS GmbH	43
AM Solutions | A Brand of the Rösler Group	53
AMFG / Autonomous Manufacturing	93
AMPOWER	87
AMT	3
AON3D	25
ARBURG Inc.	P14
Arkema Inc.	P5
ASTM International Additive Manufacturing Center of Excellence (AM CoE)	85
Authentise	34
Azul 3D, Inc.	90
B9Creations	23
BigRep America	28
Bodycote	62
Boston Micro Fabrication - BMF	P6
BuildParts by CIDEAS, Inc	83
CAPTURE 3D	54
Carbon	P26
CASTOR	55
Computer Aided Technology	D18

COMPANY (ALPHABETICAL ORDER)	BOOTH
CoreTechnologie	82
Covestro Additive Manufacturing	D1
Cubicure GmbH	26
Desktop Metal	D20
Dinsmore, Inc.	32
DMG MORI	D10
Dressler Group Customer Service GmbH	12
DyeMansion North America Inc	P8
Dyndrite	D3
Element Materials Technology	44
Elementum 3D	68
Empirical Technologies Corp	63
EOS	D14
Equispheres Inc.	P18
Essentium, Inc.	D7
Evonik Corp	P19
EVOQ nano	17
EWI	29
ExOne	D19
Fabrisonic	1
fabWeaver	D6
Fillamentum Manufacturing Czech, s. r. o.	89
FormAlloy	19
Formlabs Inc	D13
Freemelt	78
GE Additive	D8
GKN Forecast 3D	59
Global Advanced Metals	38
GoEngineer	8
GoProto, Inc.	47
Herding Filtration LLC	88
Hexagon	D16
HK Technologies	16
Hoganas AB	76
HP 3D Printing	D2

COMPANY (ALPHABETICAL ORDER)	BOOTH
Inkbit Corporation	37
INTAMSYS Technology, Inc	4
Intellegens	64
Kimya	57
Kittyhawk	49
Laboratory Testing Inc.	48
Lithoz America, LLC	81
LuxCreo	D11
Mantle Inc.	27
Markforged	P1
Massivit 3D	P16
Materialise	P21
Meltio	D4
MET-L-FLO, Inc.	86
Metal Powder Industries Federation	69
Midwest Prototyping A Prototek Company	70
Nabertherm	71
Nano Dimension	P9
Nexa3D	D12
North Star Imaging	40
nScrypt	35
OMNI3D	9
Ophir / An MKS Brand	66
Optomec	18
Optris IR Sensing, LLC	77
Oqton	P7
Pivot AM Service	67
PostProcess Technologies	P25
Praxair Surface Technologies	7
PST | Ntron Ltd	24
Quickparts	D9
Quintus Technologies	6
Raise3D Technologies	46
RAMCO Equipment	33
RAMPF Group, Inc.	60
Rapid Prototyping Services, LLC	5

COMPANY (ALPHABETICAL ORDER)	BOOTH
Renishaw, Inc.	P3
RePliForm Inc.	30
RP America	P15
Ruwac USA	15
Sandvik Additive Manufacturing	P12
Sciaky, Inc.	41
Senvol	39
Siemens Digital Industries	P13
Sigma Labs	P10
SLM Solutions	11
Solar Atmospheres	50
SPEE3D	94
Stratasys	D17
Tech Met, Inc	80
Tekna	D15
Tethon 3D	45
Thermo Fisher Scientific	92
TIGER Drylac U.S.A., Inc.	95
Tiger-Vac Inc.	75
Titan Robotics, Ltd.	P20
TriMech	51
Triton 3D LLC	73
TRUMPF Inc.	22
Ultimaker	58
Uniformity Labs Inc	52
University of Dayton Research Institute	10
Valimet, Inc.	65
Visitech America	91
VJ Technologies, Inc.	84
VORTI-SIV/MM Industries, Inc	72
voxeljet America Inc.	13
Wintech Digital Systems	79
Würth Additive Group	P2
Xact Metal	P24
Xerox Elem Additive Solutions	P11
ZEISS Industrial Quality Solutions	2

AMUGEXPO FLOORPLAN

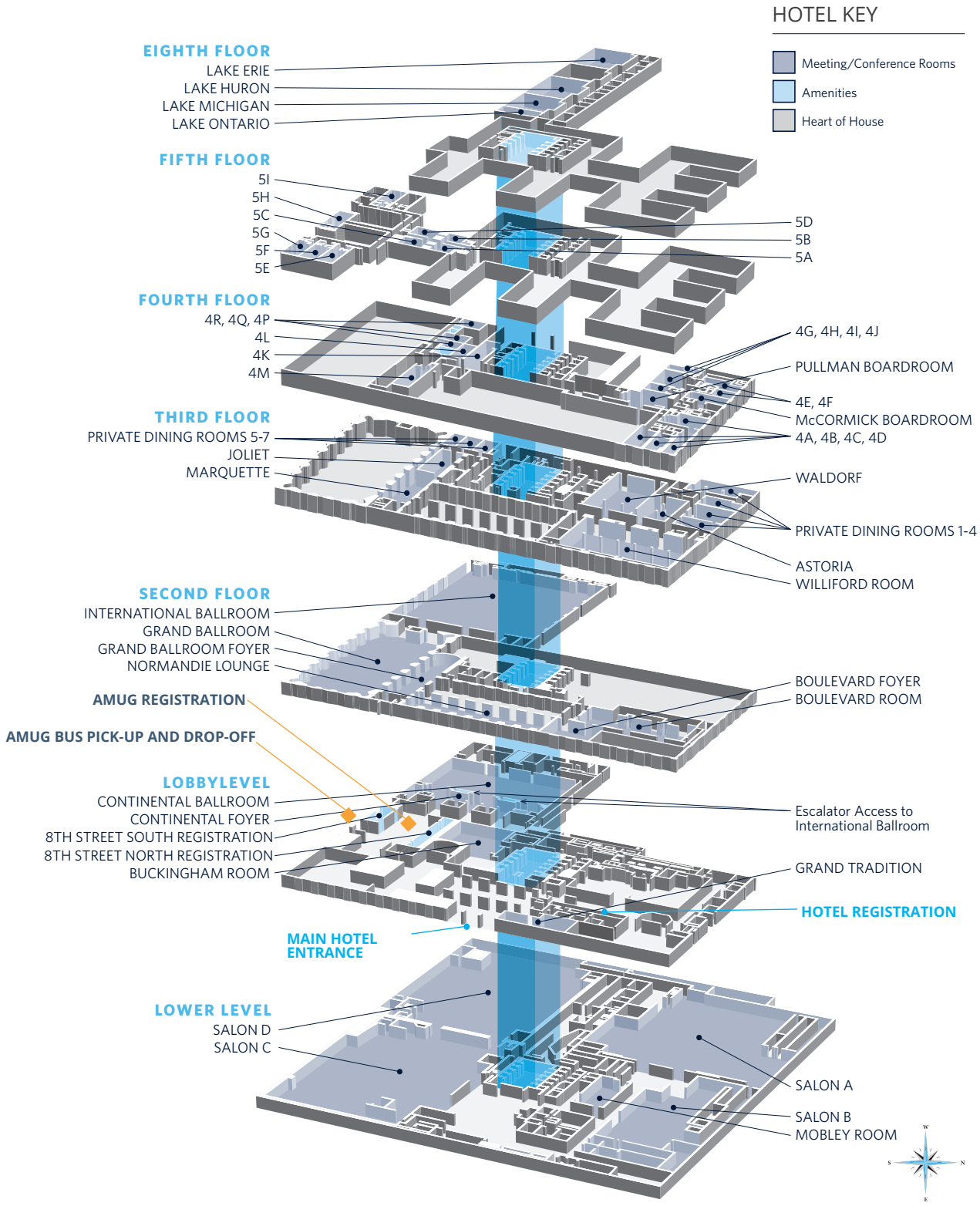


HILTON CHICAGO

HILTON CHICAGO

720 S. Michigan Avenue
Chicago, Illinois USA
Phone: +1 312-922-4400

HOTEL LEVEL	PAGE NUMBER
Lobby Level	30
Lower Level	31
2nd Floor	32
3rd Floor	33
4th Floor	34
5th Floor	35
8th Floor	36



GENERAL INFORMATION AND TRANSPORTATION		LOCATION: ROOM, FLOOR	PAGE
I	AMUG Information Desk	Lower Level	31
B	Buses to/from Palmer House Hotel	Lobby Level, 8th Street	30
B	Buses for Tuesday Night Off-Site	Lobby Level, 8th Street	30
B	Breakfast	Normandie Lounge, Grand Ballroom, 2nd Floor	32
L	Lunch	MONDAY AND THURSDAY AMUGexpo area, Lower Level TUESDAY AND WEDNESDAY Normandie Lounge, Grand Ballroom, 2nd Floor and Salon B, Lower Level	31 32
D	Dinner and Networking Events	SUNDAY AND MONDAY AMUGexpo area, Lower Level TUESDAY Off-Site WEDNESDAY AND THURSDAY Normandie Lounge and Grand Ballroom, 2nd Floor	31 30 32

AMUG REGISTRATION AND ADMINISTRATION		LOCATION: ROOM, FLOOR	PAGE
1	AMUG Registration Pre-Registered Attendees, Sponsors and Exhibitors	8th St No. Registration, Lobby Level	30
2	AMUG Office and Financial On-Site Registration and Financial Issues	8th St So. Registration, Lobby Level	30
3	Badge and Bag Pickup	8th St, No. Registration, Lobby Level	30
4	Speaker Check-in and Mobile App Center	8th St So. Registration, Lobby Level	30
5	Nominating Committee	Lake Huron, 8th Floor	36
6	Technical Competition Checkin	Office B, Salon C, Lower Level	31
7	Track Leader Committee	Lake Ontario, 8th Floor	36
PRE-CONFERENCE ACTIVITY		**LOCATION: ROOM, FLOOR**	**PAGE**
ASTM	ASTM Course	Lake Erie, 8th Floor	36
SME	SME Course	Lake Michigan, 8th Floor	36
DMG	DMG MORI Tour	Lobby Level, 8th Street	30

SUPPORT TEAM		LOCATION: ROOM, FLOOR	PAGE
RO	Red Oak Office	Mobley Room, Lower Level	31
DD	Dock Delivery	South Wabash Avenue, Lobby Level	30
AV	AV Center - Main office	Buckingham Room, Lobby Level	30
AV2	AV Center	Private Dining 1 (PDR1), 3rd Floor	33
AV3	AV Center	Lake Huron, 8th Floor	36
LR	Lead Retrieval Services	Mobley Room, Lower Level	31
PV	Photography and Video	Buckingham Room, Lobby Level	30

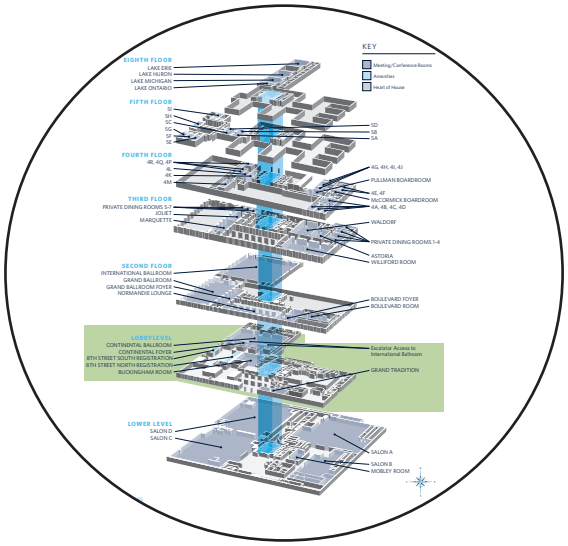
AMUG CONFERENCE SESSIONS		LOCATION: ROOM, FLOOR	PAGE
8	New Member Welcome	Normandie Lounge, 2nd Floor	32
9	AMUG Opening Address	International Ballroom, 2nd Floor	32
10	Aerospace and Transportation	Continental Room A, Lobby Level	30
11	AM Metal Technologies	Boulevard Room A/B, 2nd Floor Lake Erie, 8th Floor	32 36
12	AM Technologies (Non-Metal)	Boulevard Room A/B, 2nd Floor Lake Erie, 8th Floor	32 36
13	Casting Metals	Lake Erie, 8th Floor	36
14	Education & Training	Boulevard Room C, 2nd Floor	32
15	Materials	Continental Room B, Lobby Level	30
16	Medical & Dental	Boulevard Room A/B, 2nd Floor Boulevard Room C, 2nd Floor	32 32
17	Scanning & Metrology	Continental Room B, Lobby Level	30
18	Software	Boulevard Room A/B, 2nd Floor Continental Room B, Lobby Level	32 30

AMUGEXPO AND TECHNICAL COMPETITION		LOCATION: ROOM, FLOOR	PAGE
19	AMUGexpo (Sunday - Monday) Diamond and Platinum (Tuesday-Thursday)	Salon A, Lower Level	31
20	AMUGexpo (Sunday - Monday) Diamond and Platinum (Tuesday-Thursday)	Salon C, Lower Level	31
21	AMUGexpo (Sunday - Monday) Diamond and Platinum (Tuesday-Thursday)	Salon D, Lower Level	31
22	Technical Competition	Salon C, Lower Level	31
23	Technical Competition Members Choice Viewing Area	Hallway, Lower Level	31

PLATINUM SPEAKING AND TRAINING SESSIONS		LOCATION: ROOM, FLOOR	PAGE
P1	Platinum Speaking Sessions	Astoria, 3rd Floor	33
P2	Platinum Speaking Sessions	Joliet, 3rd Floor	33
PLATINUM SALES ROOMS BY RESERVATION ONLY		**LOCATION: ROOM, FLOOR**	**PAGE**
5A	Platinum Sales Rooms	5A, 5th Floor	35
5B	Platinum Sales Rooms	5B, 5th Floor	35
5C	Platinum Sales Rooms	5C, 5th Floor	35
5D	Platinum Sales Rooms	5D, 5th Floor	35
5E	Platinum Sales Rooms	5E, 5th Floor	35
5F	Platinum Sales Rooms	5F, 5th Floor	35
5G	Platinum Sales Rooms	5G, 5th Floor	35
5H	Platinum Sales Rooms	5H, 5th Floor	35
5I	Platinum Sales Rooms	5I, 5th Floor	35

DIAMOND SPEAKING AND TRAINING ROOMS		LOCATION: ROOM, FLOOR	PAGE
D1	Diamond Speaking Sessions	Continental Room C, Lobby Level	30
D2	Diamond Speaking Sessions	International Ballroom, 2nd Floor	32
D3	Diamond Speaking Sessions	Waldorf, 3rd Floor	33
D4	Diamond Speaking Sessions	Marquette, 3rd Floor	33
D5	Diamond Training Sessions	Williford A, 3rd Floor	33
D6	Diamond Training Sessions	Williford B, 3rd Floor	33
D7	Diamond Training Sessions	Williford C, 3rd Floor	33
D8	Diamond Training Sessions	Private Dining 2 (PDR2), 3rd Floor	33
DIAMOND SALES ROOMS		**LOCATION: ROOM, FLOOR**	**PAGE**
DS-1	Computer Aided Technology	4-C (4th Floor)	34
DS-2	Covestro Additive Manufacturing	4-D (4th Floor)	34
DS-3	Desktop Metal	4-M (4th Floor)	34
DS-4	DMG MORI USA	4-J (4th Floor)	34
DS-5	Dyndrite	PDR 5 (3rd Floor)	33
DS-6	EOS	4-A (4th Floor)	34
DS-7	Essentium, Inc.	4-I (4th Floor)	34
DS-8	ExOne	4-K (4th Floor)	34
DS-9	fabWeaver	4-G (4th Floor)	34
DS-10	Formlabs Inc	4-B (4th Floor)	34
DS-11	GE Additive	4-Q (4th Floor)	34
DS-12	Hexagon	4-F (4th Floor)	34
DS-13	HP 3D Printing	4-L (4th Floor)	34
DS-14	LuxCreo	4-H (4th Floor)	34
DS-15	Meltio	PDR 6 (3rd Floor)	33
DS-16	Nexa3D	PDR 7 (3rd Floor)	33
DS-17	Quickparts	4-P (4th Floor)	34
DS-18	Stratasys	PDR 4 (3rd Floor)	33
DS-19	Tekna	4-E (4th Floor)	34

Lobby Level



GENERAL INFORMATION AND TRANSPORTATION		LOCATION: ROOM, FLOOR
B	Buses to/from Palmer House Hotel	Lobby Level, 8th Street
B	Buses for Tuesday Night Off-Site	Lobby Level, 8th Street

AMUG REGISTRATION AND ADMINISTRATION		LOCATION: ROOM, FLOOR
1	AMUG Registration Pre-Registered Attendees, Sponsors and Exhibitors	8th St No. Registration, Lobby Level
2	AMUG Office and Financial On-Site Registration and Financial Issues	8th St So. Registration, Lobby Level
3	Badge and Bag Pickup	8th St, No. Registration, Lobby Level
4	Speaker Check-in and Mobile App Center	8th St So. Registration, Lobby Level
PRE-CONFERENCE ACTIVITY		**LOCATION: ROOM, FLOOR**
DMG	DMG MORI Tour	Lobby Level, 8th Street

AMUG CONFERENCE SESSIONS		LOCATION: ROOM, FLOOR
10	Aerospace and Transportation	Continental Room A, Lobby Level
15	Materials	Continental Room B, Lobby Level
17	Scanning & Metrology	Continental Room B, Lobby Level
18	Software	Continental Room B, Lobby Level



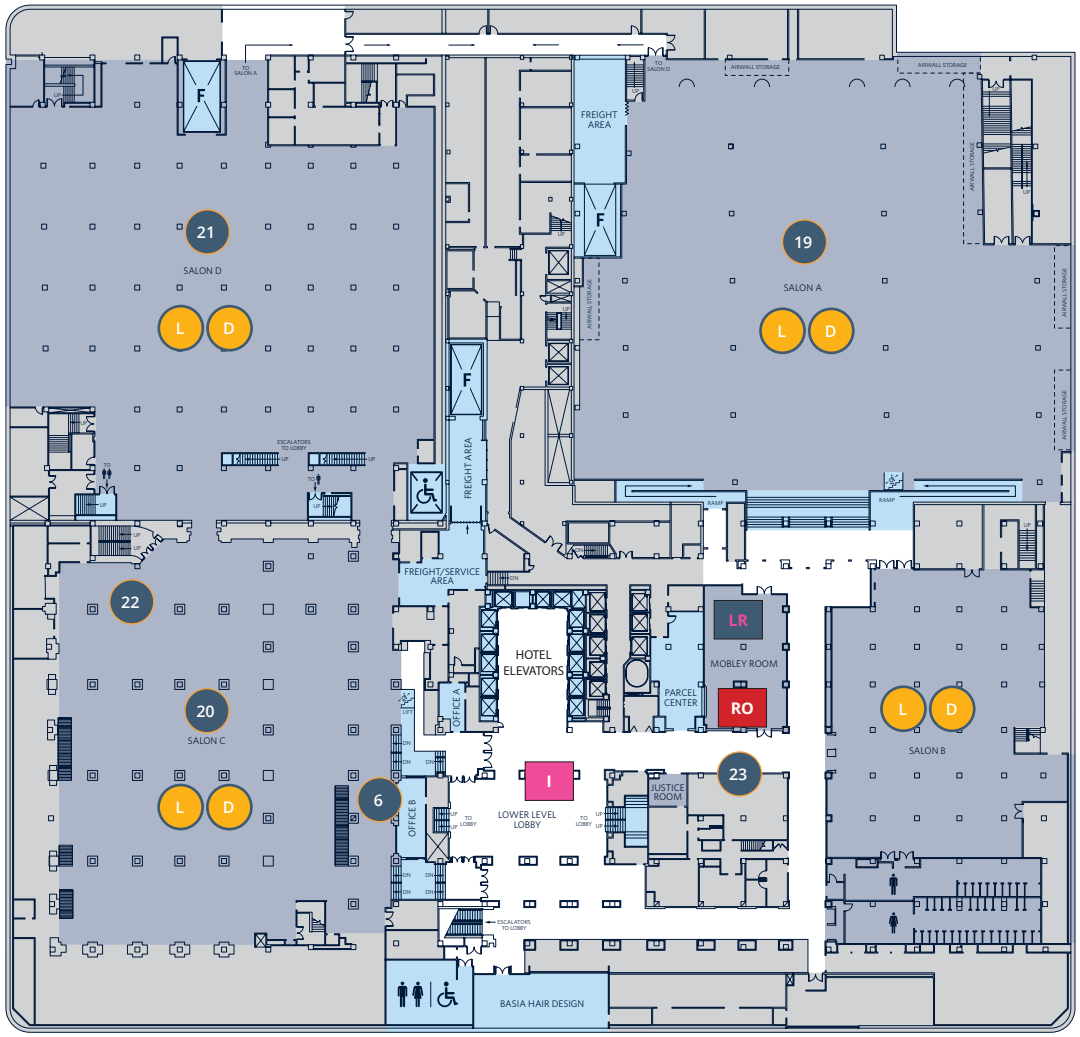
DIAMOND SPEAKING AND TRAINING ROOMS		LOCATION: ROOM, FLOOR
D1	Diamond Speaking Sessions	Continental Room C, Lobby Level

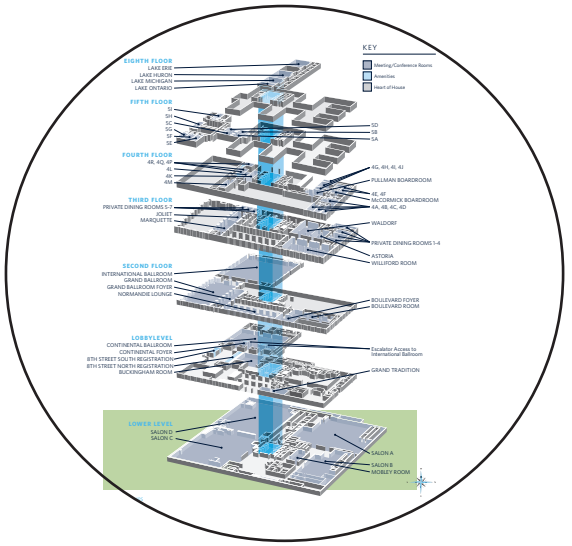
SUPPORT TEAM		LOCATION: ROOM, FLOOR
DD	Dock Delivery	South Wabash Avenue, Lobby Level
AV	AV Center - Main office	Buckingham Room, Lobby Level
PV	Photography and Video	Buckingham Room, Lobby Level

HOTEL KEY

- Meeting/Conference Rooms
- Food & Beverages
- Amenities
- Heart of House
- ADA Elevator
- ADA Lift
- Restrooms
- Elevator
- Freight Elevator

Lower Level





HOTEL KEY

- Meeting/Conference Rooms
- Amenities
- Heart of House
- ADA Elevator
- ADA Lift
- Restrooms
- Elevator
- Freight Elevator

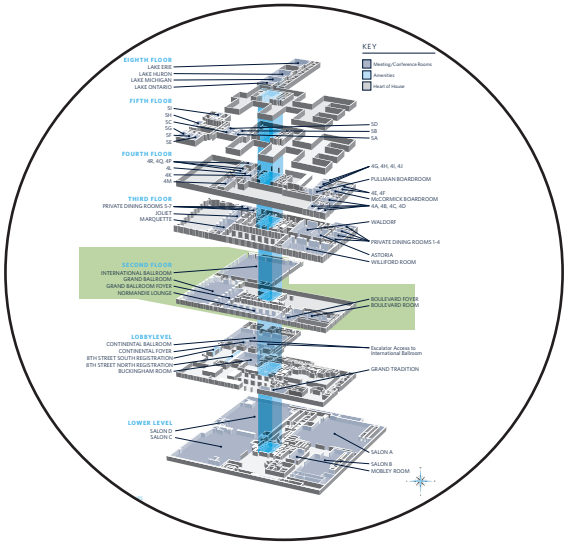
GENERAL INFORMATION AND TRANSPORTATION		LOCATION: ROOM, FLOOR
I	AMUG Information Desk	Lower Level
L	Lunch	MONDAY AND THURSDAY AMUGexpo area, Lower Level
D	Dinner and Networking Events	SUNDAY AND MONDAY AMUGexpo area, Lower Level

AMUG REGISTRATION AND ADMINISTRATION		LOCATION: ROOM, FLOOR
6	Technical Competition Checkin	Office B, Salon C, Lower Level

AMUGEXPO AND TECHNICAL COMPETITION		LOCATION: ROOM, FLOOR
19	AMUGexpo (Sunday - Monday) Diamond and Platinum (Tuesday-Thursday)	Salon A, Lower Level
20	AMUGexpo (Sunday - Monday) Diamond and Platinum (Tuesday-Thursday)	Salon C, Lower Level
21	AMUGexpo (Sunday - Monday) Diamond and Platinum (Tuesday-Thursday)	Salon D, Lower Level
22	Technical Competition	Salon C, Lower Level
23	Technical Competition Members Choice Viewing Area	Hallway, Lower Level

SUPPORT TEAM		LOCATION: ROOM, FLOOR
RO	Red Oak Office	Mobley Room, Lower Level
LR	Lead Retrieval Services	Mobley Room, Lower Level

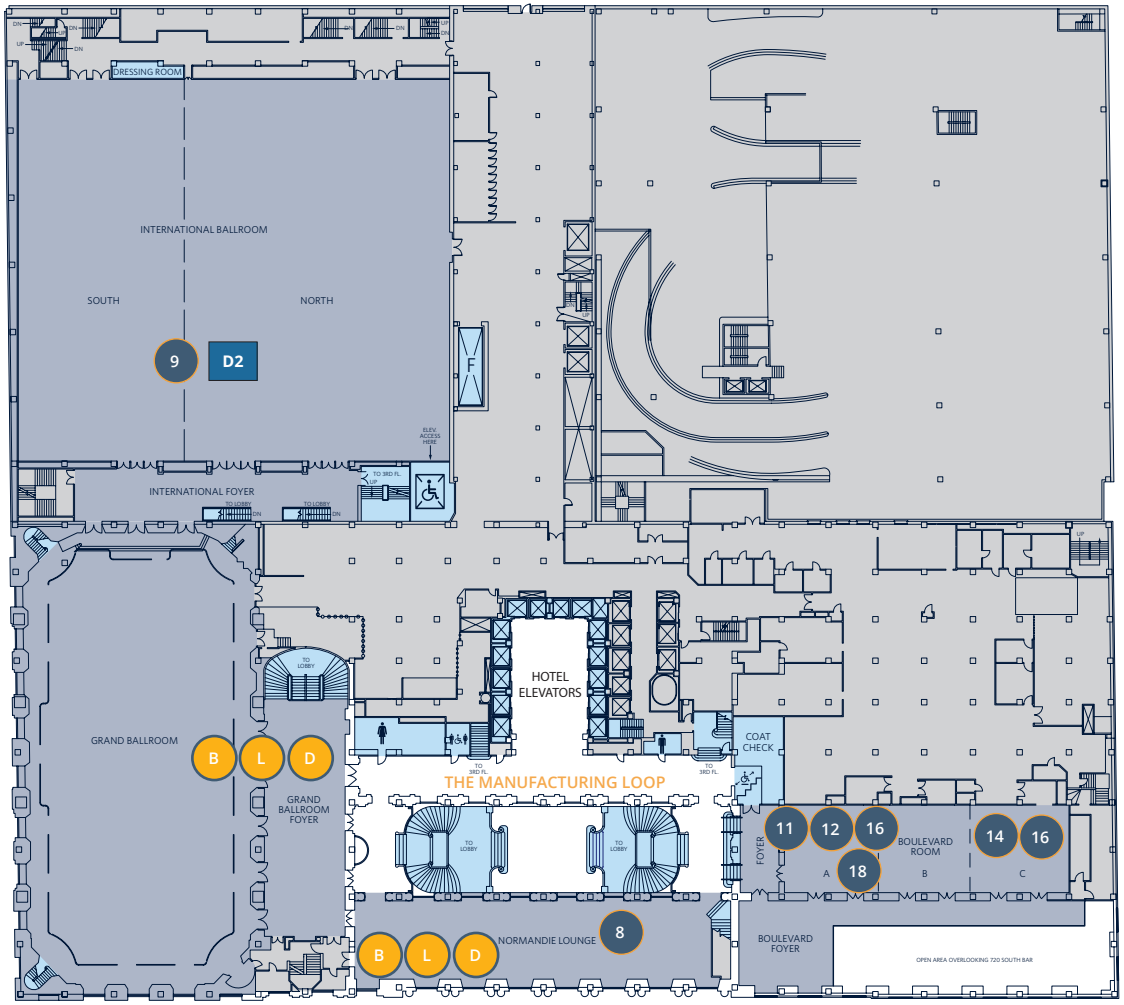
2nd Floor



GENERAL INFORMATION AND TRANSPORTATION		LOCATION: ROOM, FLOOR
B	Breakfast	Normandie Lounge, Grand Ballroom, 2nd Floor
L	Lunch	TUESDAY AND WEDNESDAY Normandie Lounge, Grand Ballroom, 2nd Floor and Salon B, Lower Level
D	Dinner and Networking Events	WEDNESDAY AND THURSDAY Normandie Lounge and Grand Ballroom, 2nd Floor

AMUG CONFERENCE SESSIONS		LOCATION: ROOM, FLOOR
8	New Member Welcome	Normandie Lounge, 2nd Floor
9	AMUG Opening Address	International Ballroom, 2nd Floor
11	AM Metal Technologies	Boulevard Room A/B, 2nd Floor
12	AM Technologies (Non-Metal)	Boulevard Room A/B, 2nd Floor
14	Education & Training	Boulevard Room C, 2nd Floor
16	Medical & Dental	Boulevard Room A/B, 2nd Floor Boulevard Room C, 2nd Floor
18	Software	Boulevard Room A/B, 2nd Floor

DIAMOND SPEAKING AND TRAINING ROOMS		LOCATION: ROOM, FLOOR
D2	Diamond Speaking Sessions	International Ballroom, 2nd Floor

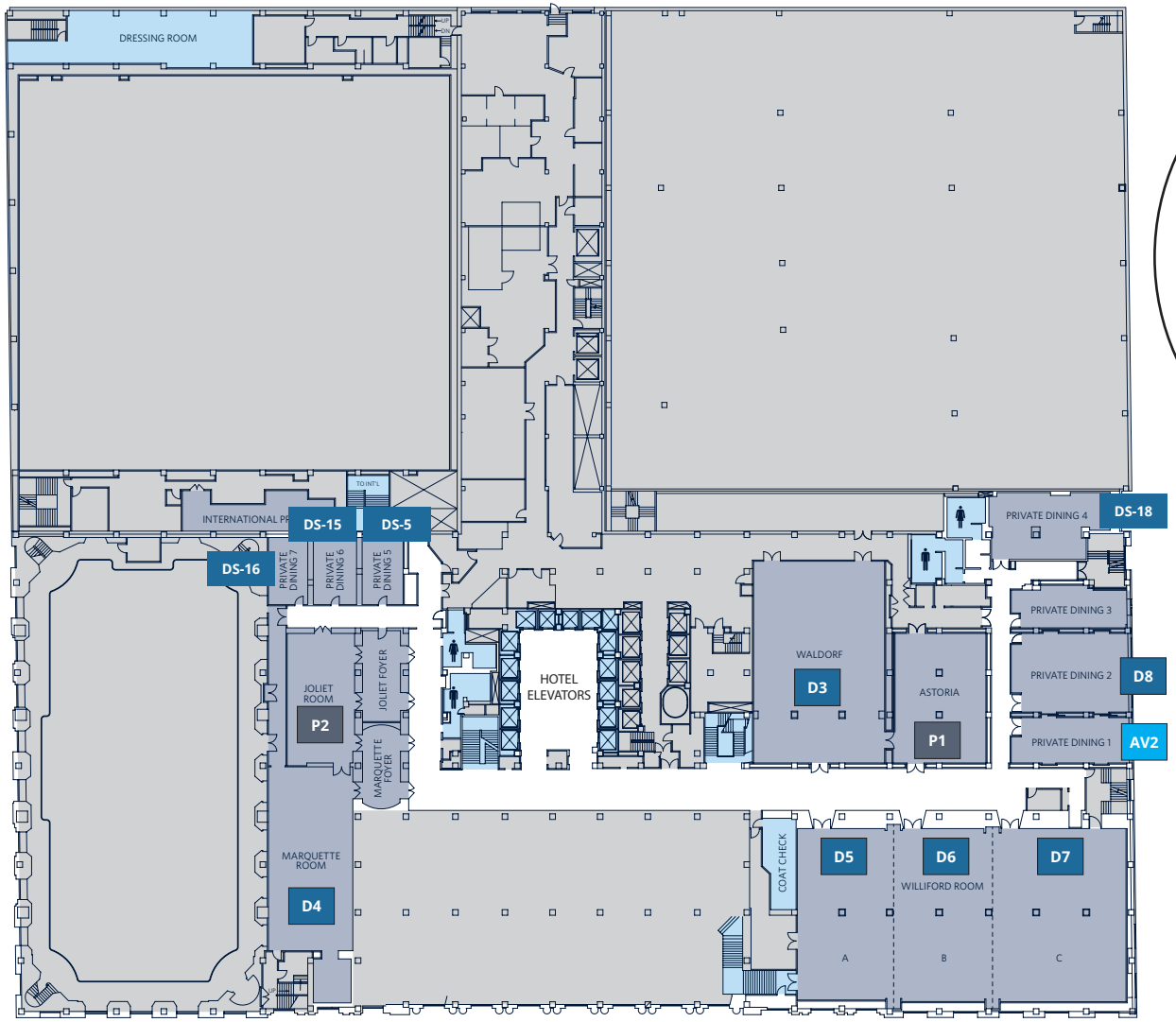


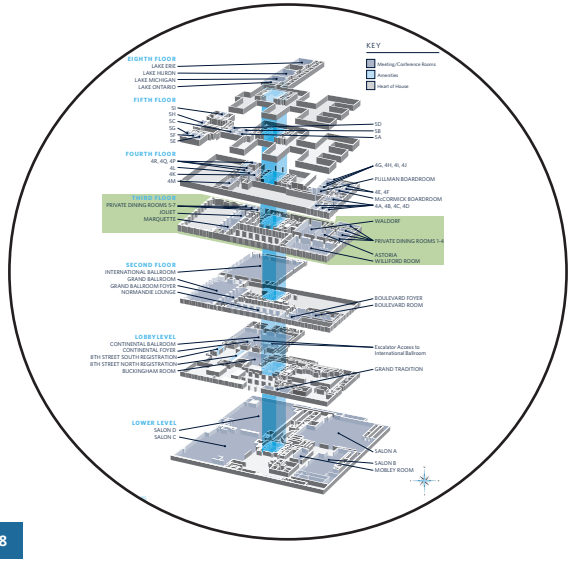
2ND FLOOR

HOTEL KEY

- Meeting/Conference Rooms
- Amenities
- Heart of House
- ADA Elevator
- ADA Lift
- Restrooms
- Elevator
- Freight Elevator

3rd Floor





HOTEL KEY

- Meeting/Conference Rooms
- Amenities
- Heart of House
- Restrooms
- Elevator

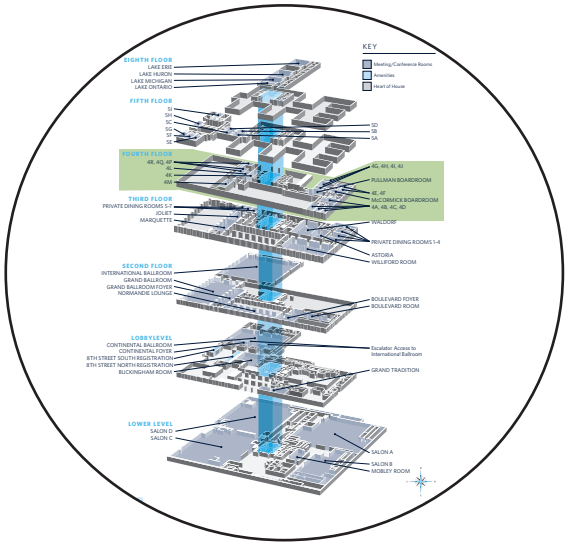
PLATINUM SPEAKING AND TRAINING SESSIONS		LOCATION: ROOM, FLOOR
P1	Platinum Speaking Sessions	Astoria, 3rd Floor
P2	Platinum Speaking Sessions	Joliet, 3rd Floor

DIAMOND SPEAKING AND TRAINING ROOMS		LOCATION: ROOM, FLOOR
D3	Diamond Speaking Sessions	Waldorf, 3rd Floor
D4	Diamond Speaking Sessions	Marquette, 3rd Floor
D5	Diamond Training Sessions	Williford A, 3rd Floor
D6	Diamond Training Sessions	Williford B, 3rd Floor
D7	Diamond Training Sessions	Williford C, 3rd Floor
D8	Diamond Training Sessions	Private Dining 2 (PDR2), 3rd Floor

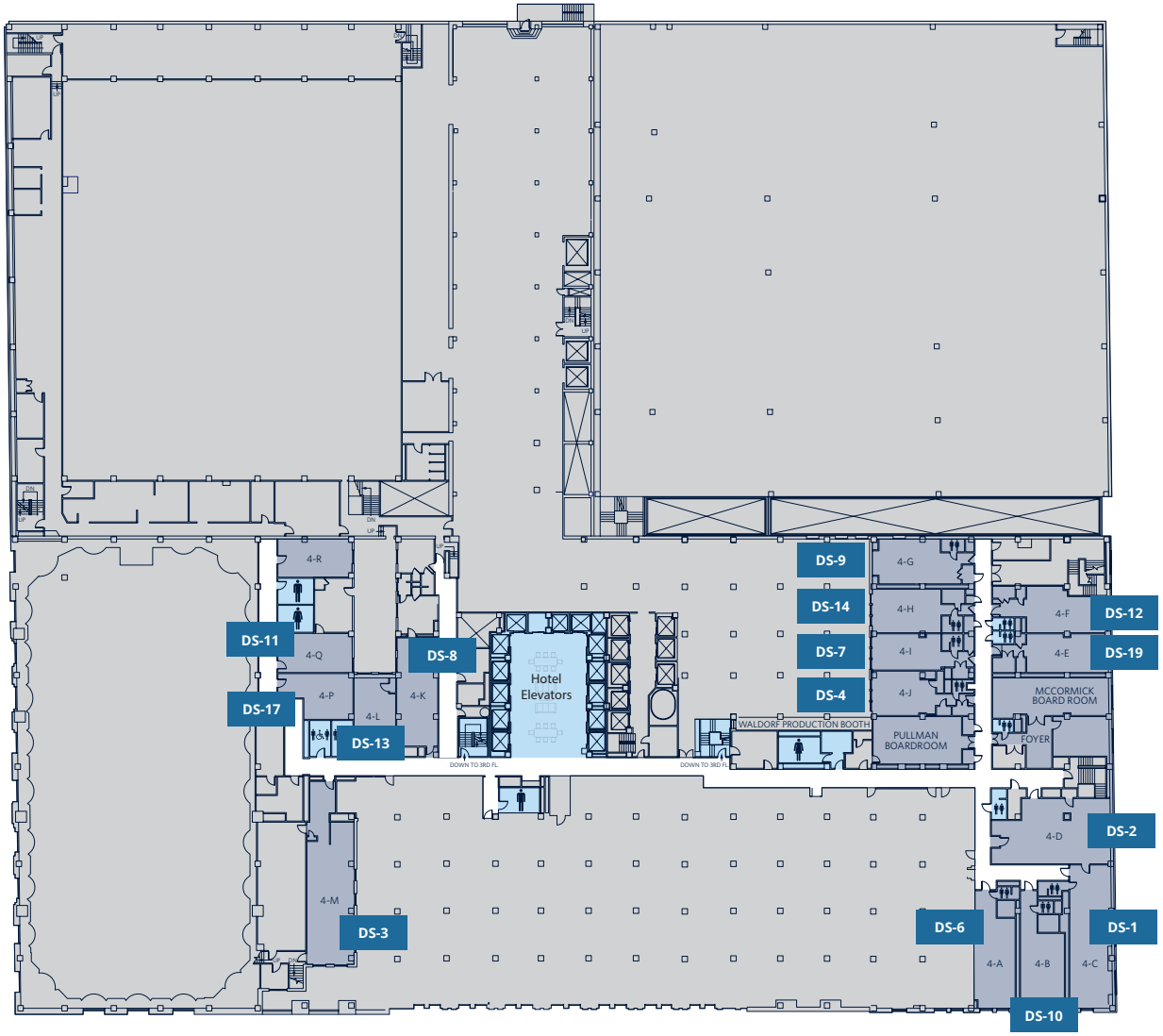
DIAMOND SALES ROOMS		LOCATION: ROOM, FLOOR
DS-5	Dyndrite	PDR 5 (3rd Floor)
DS-15	Meltio	PDR 6 (3rd Floor)
DS-16	Nexa3D	PDR 7 (3rd Floor)
DS-18	Stratasys	PDR 4 (3rd Floor)

SUPPORT TEAM		LOCATION: ROOM, FLOOR
AV2	AV Center	Private Dining 1 (PDR1), 3rd Floor

4th Floor



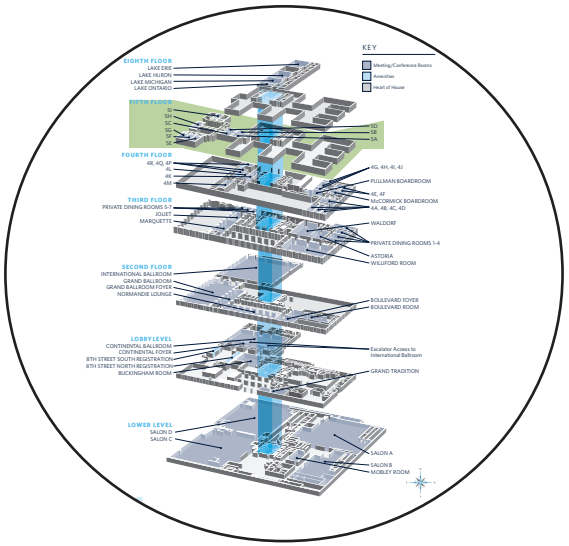
DIAMOND SALES ROOMS		LOCATION: ROOM, FLOOR
DS-1	Computer Aided Technology	4-C (4th Floor)
DS-2	Covestro Additive Manufacturing	4-D (4th Floor)
DS-3	Desktop Metal	4-M (4th Floor)
DS-4	DMG MORI USA	4-J (4th Floor)
DS-6	EOS	4-A (4th Floor)
DS-7	Essentium, Inc.	4-I (4th Floor)
DS-8	ExOne	4-K (4th Floor)
DS-9	fabWeaver	4-G (4th Floor)
DS-10	Formlabs Inc	4-B (4th Floor)
DS-11	GE Additive	4-Q (4th Floor)
DS-12	Hexagon	4-F (4th Floor)
DS-13	HP 3D Printing	4-L (4th Floor)
DS-14	LuxCreo	4-H (4th Floor)
DS-17	Quickparts	4-P (4th Floor)
DS-19	Tekna	4-E (4th Floor)

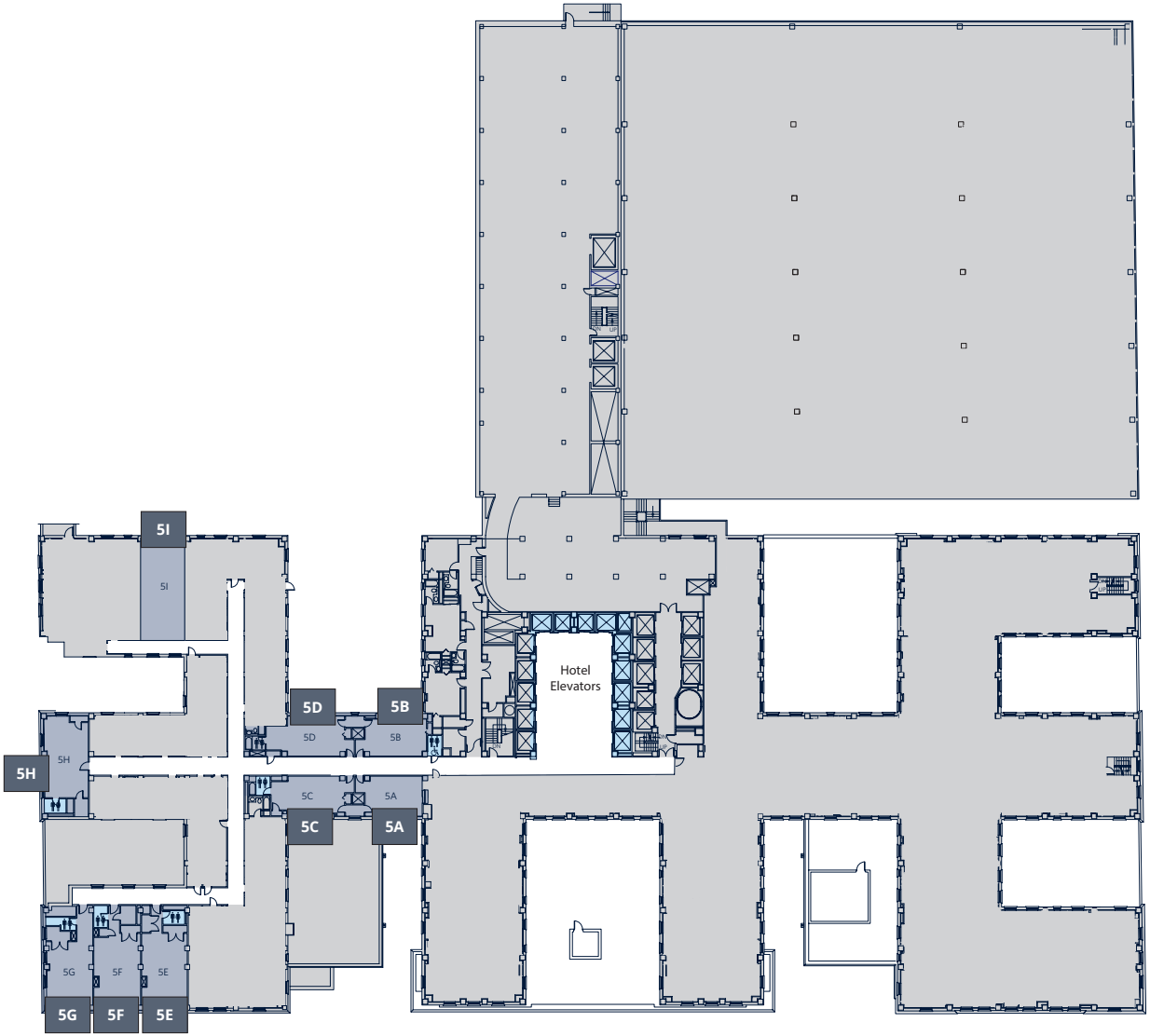


HOTEL KEY

- Meeting/Conference Rooms
- Amenities
- Heart of House
- Restrooms
- Elevator

5th Floor



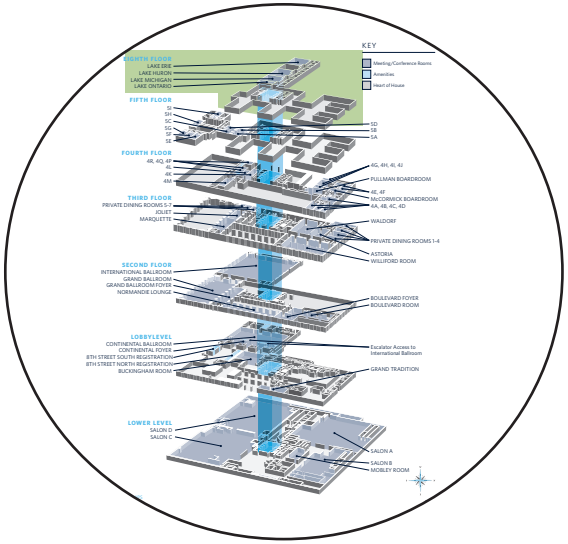


PLATINUM SALES ROOMS BY RESERVATION ONLY		LOCATION: ROOM, FLOOR
5A	Platinum Sales Rooms	5A, 5th Floor
5B	Platinum Sales Rooms	5B, 5th Floor
5C	Platinum Sales Rooms	5C, 5th Floor
5D	Platinum Sales Rooms	5D, 5th Floor
5E	Platinum Sales Rooms	5E, 5th Floor
5F	Platinum Sales Rooms	5F, 5th Floor
5G	Platinum Sales Rooms	5G, 5th Floor
5H	Platinum Sales Rooms	5H, 5th Floor
5I	Platinum Sales Rooms	5I, 5th Floor

HOTEL KEY

- Meeting/Conference Rooms
- Amenities
- Heart of House
- Restrooms
- Elevator

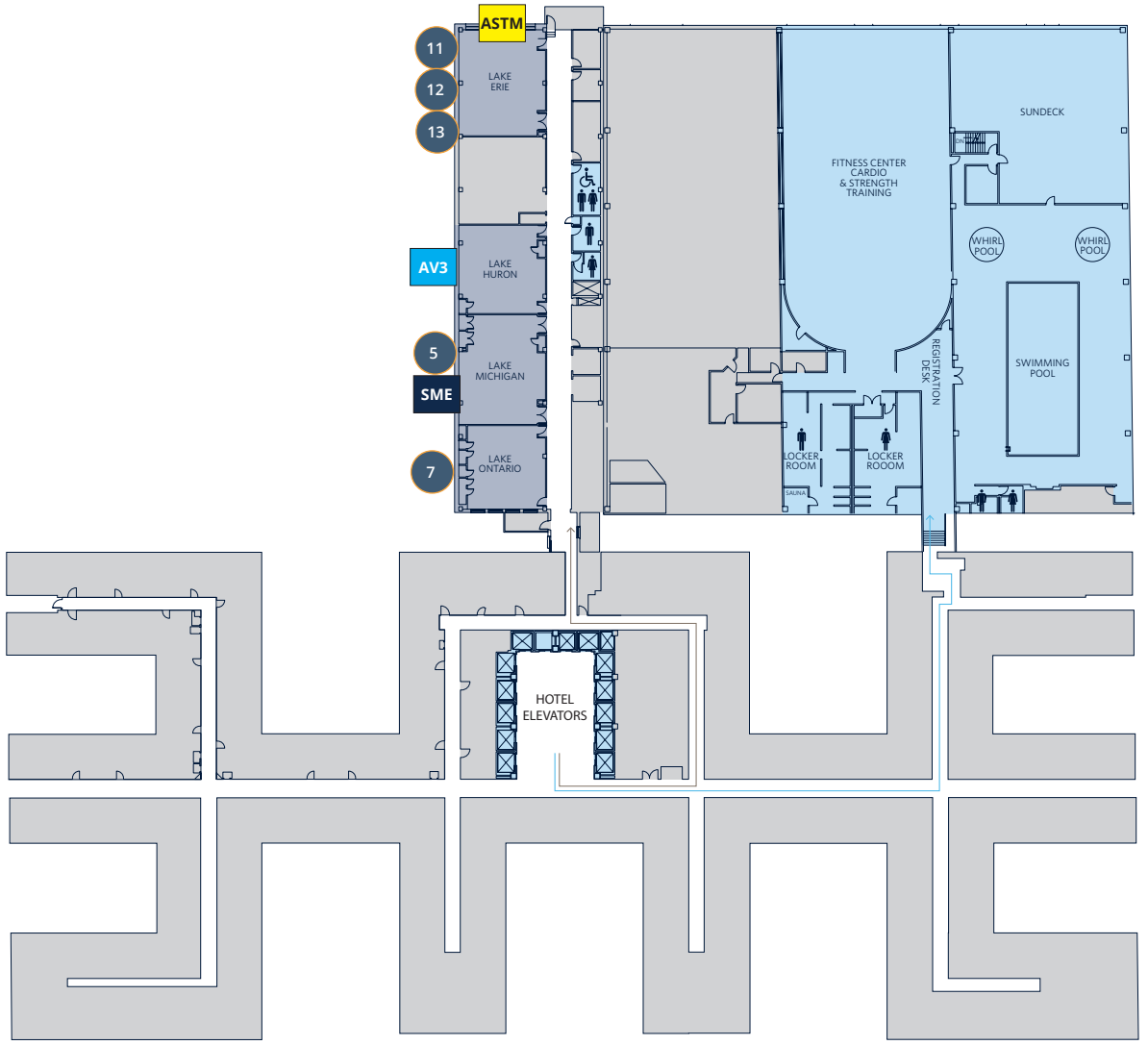
8th Floor



AMUG REGISTRATION AND ADMINISTRATION		LOCATION: ROOM, FLOOR
5	Nominating Committee	Lake Huron, 8th Floor
7	Track Leader Committee	Lake Ontario, 8th Floor
PRE-CONFERENCE ACTIVITY		**LOCATION: ROOM, FLOOR**
ASTM	ASTM Course	Lake Erie, 8th Floor
SME	SME Course	Lake Michigan, 8th Floor

AMUG CONFERENCE SESSIONS		LOCATION: ROOM, FLOOR
11	AM Metal Technologies	Boulevard Room A/B, 2nd Floor Lake Erie, 8th Floor
12	AM Technologies (Non-Metal)	Boulevard Room A/B, 2nd Floor Lake Erie, 8th Floor
13	Casting Metals	Lake Erie, 8th Floor

SUPPORT TEAM		LOCATION: ROOM, FLOOR
AV3	AV Center	Lake Huron, 8th Floor



HOTEL KEY

- Meeting/Conference Rooms
- Amenities
- Heart of House
- Restrooms
- Elevator























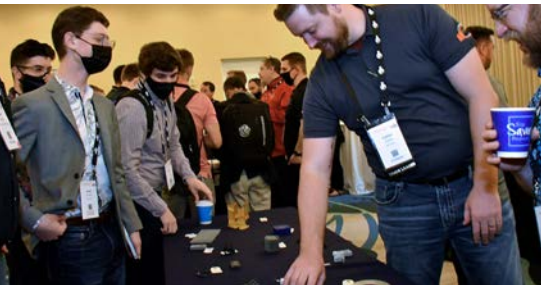


























FOR USERS. BY USERS.

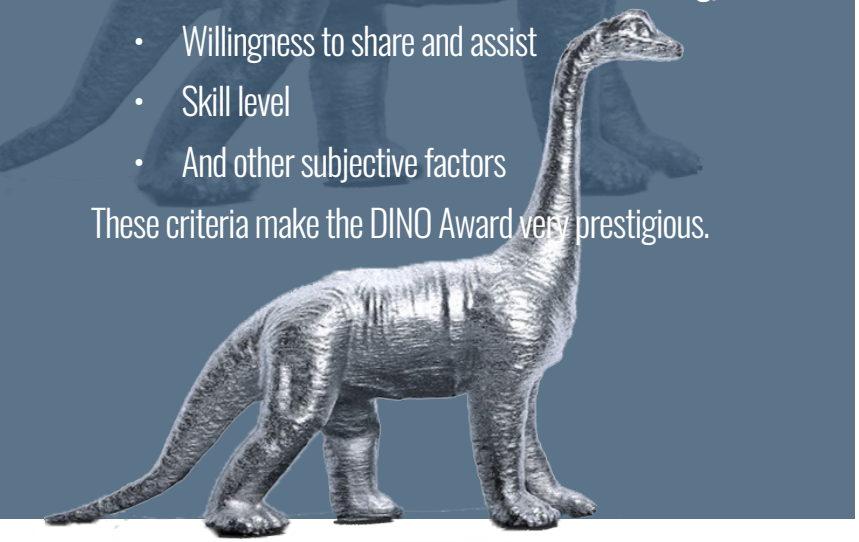
DINO AWARD

DISTINGUISHED INNOVATOR OPERATOR

The Distinguished INnovator Operator (DINO) Award recognizes individuals for both their contributions and years of service within the additive manufacturing industry and within the AMUG organization. Each year, following an open call for peer/self-nominations, the selection committee reviews all submissions as well as the list of conference registrants and selects DINOs based on factors such as:

- Contributions to the AM industry worldwide
- Contributions to AMUG (e.g., speaker, volunteer)
- Years of hands-on work with an AM technology
- Willingness to share and assist
- Skill level
- And other subjective factors

These criteria make the DINO Award very prestigious.



2021 DINO RECIPIENTS



SHANE COLLINS
ASTM International



ROBIN VAN BRAGT
Eagle Design and Technology Inc.



GILES GASKELL
Hexagon



ANA NEVES
RAMCO

DINO RECIPIENTS FROM 1998 - 2020

2020
Jeff DeGrange, Impossible Objects Inc
Bob Diaz, College of Southern Nevada
Leslie Frost, GE Additive
Youping Gao, Castheon
Ed Graham, ProtoCAM
Paul Hojan, Christie Digital
Evan Kirby, Materialise
Ulf Lindhe, Oqton, Inc.
Dana McCallum, Carbon, Inc.
Bob Wood, ExOne

2019
Brett Charlton, BD
Jay Dinsmore, Dinsmore Associates
Rory Jackson, RAMP Inc.
Brett Lyons, Jabil Additive
Bob Markley, 3rd Dimension Industrial 3D Printing
Rick Moore, U.S. Army
Jeremy Pullin, Sartorius Stedim
Nate Schumaker, Midwest Prototyping
Tuan Tranpham, Desktop Metal
Jordan Weston, Milwaukee School of Engineering

2018
Andy Christensen, Somaden LLC
Rey Chu, PADT, Inc.
Douglas Greenwood, Fleet Readiness Center East
Steve Hanna, 3D Systems
Rick Pressley, Renaissance Services, Inc.
Andrew Sliwa, Custom Prototypes Inc.
Fried Vancraen, Materialise
Pat Warner, Renault Sport Formula One

2017
Ted Anderson, GE Additive
Bruce Bradshaw, Arcam AB
Carl Deckard, Structured Polymers
Joerg Griessbach, The SL Pro
Jim Harrison, The Solid Experts
Kim Killoran, Stratasys
Peter Liacouras, Walter Reed Military Medical Center
Steve Murray, Hoosier Pattern
Shannon Van Deren, Layered Manufacturing and Consulting
Kevin Zaras, DSM Functional Materials

2016
Andrew Allshorn, At 3D-Squared, Ltd.
Ben Dolan, UC Irvine
Vito Gervasi, Milwaukee School of Engineering (MSOE)
Elizabeth Goode, GoodeInk
Mike Hascher, Eagle Engineered Solutions Inc.
Joe Holland, Hyphen
Bonnie Meyer, Stratasys
Todd Reese, Realize, Inc.
Dan Welker, Yazaki North America
Jack Ziemba, Aristo-Cast, Inc.

2015
Vince Anewenter, Milwaukee School of Engineering (MSOE)
Derek Ellis, Computer Aided Technology, Inc.
Andrew Graves, Stratasys Direct Manufacturing
Steven Kossett, Natural Resource Research Institute, University of Minnesota
Stefan Ritt, SLM Solutions
Harold Sears, Ford Motor Company
Ed Tackett, University of California, Irvine
Mark Wynn, Yazaki North America

2014
Mark Barfoot, Hyphen
Scott Crump, Stratasys
Stewart Davis, CRP USA
Jason Dickman, American Precision Prototyping
Jim Reitz, Rapid Tech Consulting

2013
Chuck Alexander, Solid Concepts
Brian Bauman, Linked In 3D
Paul Bordner, Laser Reproductions
Todd Grimm, T.A. Grimm & Associates
Terry Hoppe, Stratasys

2012
Paul Bates, Reebok
David Bourell, University of Texas
Bill Braune, Met-L-Flo
Duane Byerly, Xerox
Robert Coleman, Mattell
Roger Cunningham, Integra
Mike Littrell, CIDEAS Inc.
Jason Lopes, Legacy Effects
Frank Medina, University of Texas El Paso
Dan Mishek, Vista Technologies
Larry Monahan, Becton Dickinson
Charlie Norton, NCP Leasing
Ken Patton, RapidTech/Saddleback
Brad Palumbo, Phoenix Analysis & Design
Bradley Ruprecht, US Army
Scott Schermer, S.C. Johnson
Thomas Starr, University of Louisville
Sean Wise, RePliForm
Michael Zerbe, Newell Rubbermaid

2011
Bret Bordner, Laser Reproductions
Mike Connor, Integra
Kevin Dyer, InterPro
Bob Dzugan, buyCASTINGS
Fred Hilbrandt, FBI
Bill Lamey, Boeing
John Schaefer, DSM Somos
Greg Stein, Northrop Grumman
Xu Xiaoshu, Farsoon Hi-Tech
Arnold Zieger, Dalimer

2010
Ron Belknap, Protocam
Jerry Bordner, Laser Reproductions
Dr. Dave Bourell, Univesity of Texas
Sheku Kamara, Milwaukee School of Engineering (MSOE)
Kevin McAlea, 3D Systems
Bruce Okkema, Eagle Design & Technology
Lance Shanklin, Integra Support

2009
Neil Hopkinson, Loughborough University
Dr. Paul Jacobs, 3D Systems
Harold Luper, Huntsman
Steve McDonald, L3
Dave Rosen, Georgia Tech
Richard Smeenk, Agile Manufacturing
Graham Tromans, Loughborough University

2008
Mark Abshire, DSM
Denny Black, Valeo Sylvania
Chris Huskamp, The Boeing Phantom Works
Steinar Killi, Oslo School
Troy Kuhn, Chrysler
Gideon Levy, University of Applied Sciences
Ariel Lijenstein, Robtec
Jan Richter, Solid Concepts

2007
Rick Booth, Advanced Laser Materials
Carl Dekker, Met-L-Flo
Kent Firestone, Solid Concepts
Gary Graf, University of Louisville
Bruce LeMaster, Applied Rapid Technologies
Tom Mueller, Express Pattern
Gary Rabinovitz, Reebok International
Lawrence Winnen, Tyco Electronics

2006
Joe Allison, Solid Concepts
Daniel Baker, US Army Benet Labs
Phillip Conner, 3D Systems
Renee Flynn, Paramount Industries
Soeren Griessbavh, V.G. Kunstsofftechni
Terry Kreplin, Baxter
R.J. Robinson, University of Kentucky
Igata Tersuzo, INCS
Georgia Theriot, GT Signiture
James Williams, Paramount Industries

2005
Gregg Banyon, Delphi
Martin Colombo, ATI
Richard Davis, Motorola
Ken Davis, University of Louisville
Al DeWitt, Rapid Solutions
Mike Scanlon, Homes Group
Roger Speilman, Solid Concepts
Brent Stucker, Utah State
Scott Turner, Scicon
Rethia Williams, RMB Products

2004
Kevin Ayers, FBI
Tim Gornet, University of Louisville
David Leigh, Harvest Technologies
Jeff Smith, Moeller Design
Derrick Spaven, RPM Solutions
Bob Speer, ALCOA
Scott Sutterer, DSM Somos
Bob Zubrickie, Tyco Electronics

2003
Phill Dickens, Loughborough University
Judy Gill, Raytheon
Mark Horner, The Technology House

2001
Steve Deak, Hasbro
Beth Israelnaim, Becton-Dickenson
Kevin Kennedy, Prototech Engineering
Tom Sorovetz, Daimler Chrysler

2000
Dave Flynn, Express Pattern
Elaine Hunt, Clemson University
Graham Tromans, Rover Group
Doug Van Putte, Eastman Kodak

1998
Guy Bourdeau, Beckman Coulter
Rob Connelly, Becton-Dickinson
Joe DeGuglielmo, Eastman Kodak
Chuck Hull, 3D Systems
John Mack, General Motors
Fred Steinbauer, Pratt & Whitney

Tuesday, April 5 at 8:30am
International Ballroom, 2nd Floor

2022 DINO AWARDS

Join us as we induct the newest DINOs!

AMUG DINO, Established 1998

The DINO Award is AMUG's most prestigious honor. It is bestowed upon those with the highest levels of additive manufacturing expertise and a willingness to share that knowledge through contributions to AMUG, its members and the industry it represents.

2021-2022 AMUG BOARD OF DIRECTORS

The AMUG organization has been building the user group for 35 years. As an all-volunteer organization, the AMUG Board works with individuals globally to increase awareness and build a strong additive manufacturing community.

If you are interested in joining the expanding AMUG team, contact our Nominating Committee at nomcom@amug.com.



PRESIDENT
CARL DEKKER
MET-L-FLO
president@amug.com
Years of AMUG service: 7*



VICE PRESIDENT
ANDREW ALLSHORN
AT 3D-SQUARED
vicepresident@amug.com
Years of AMUG service: 7



SECRETARY
LESLIE FROST
6K Inc.
secretary@amug.com
Years of AMUG service: 5



DIRECTOR,
CONFERENCE & EDUCATION
Jordan Weston
Milwaukee School of Engineering (MSOE)
dconfed@amug.com
Years of AMUG service: 6



DIRECTOR,
BUSINESS DEVELOPMENT
Tim Bell
Siemens Digital Industries USA
dbizdev@amug.com
Years of AMUG service: 1

*Includes years served under 3DSNASUG and/or DTM Users Group



PAST PRESIDENT
PAUL BATES
ASTM International
pastpresident@amug.com
Years of AMUG service: 10



TREASURER
VINCE ANEWENTER
Milwaukee School of Engineering (MSOE)
treasurer@amug.com
Years of AMUG service: 11



DIRECTOR,
EVENT & HOSPITALITY
THOMAS SOROVETZ
Casting Engineer Emeritus
eventmanager@amug.com
Years of AMUG service: 29*



DIRECTOR,
MEMBERSHIP
Bill Macy
Titan Robotics
dmembership@amug.com
Years of AMUG service: 1



DIRECTOR AT LARGE
GARY RABINOVITZ
Reebok International
datlarge@amug.com
Years of AMUG service: 20*

2021-2022 AMUG COMMITTEES

The AMUG organization relies on the support of volunteers from the AM community for its success. Active participation in committees is one way to engage, learn, support, and contribute. Below are the committees and the current members that make them work. If you are interested in participating, complete the AMUG Volunteer form on the AMUG website now or before June 1st. Committee members will be selected and approved by June 30th. The term for all committees will be one year starting July 1st.

CONFERENCE COMMITTEES

AGENDA & PROGRAM
CHAIRPERSON: Jordan Weston, MSOE
MEMBERS:
Andrew Allshorn, AT 3D-SQUARED
Ed Graham, ProtoCAM
Kim Killoran, Stratasys
Gary Rabinovitz, Reebok

CONTACT: AGENDA@AMUG.COM

DINO SELECTION
CHAIRPERSON: Gary Rabinovitz, Reebok
MEMBERS:
Shane Collins, ASTM
Jeff DeGrange, Impossible Objects
Todd Grimm, T. A. Grimm & Assocs.
Kim Killoran, Stratasys
Stefan Ritt, Fehrmann Alloys GmbH & Co.KG
Robin Van Bragt, Eagle Design & Technology
Shannon VanDeren, Layered Mfg. & Consulting

CONTACT: DINO@AMUG.COM

EVENT & HOSPITALITY
CHAIRPERSON: Thomas Sorovetz

CONTACT: EVENTMANAGER@AMUG.COM

EXPO (AMUGexpo)
CHAIRPERSON: Mark Wynn, Yazaki North America
MEMBERS:
Jamie Cone, BD
Matt Mitchell, Yazaki North America
Thomas Murphy, Shapeways
Tom Sorovetz
Bob Wood, ExOne

CONTACT: EXPO@AMUG.COM

RECOGNITION
CHAIRPERSON: Mark Barfoot, EWI

CONTACT: AWARDS@AMUG.COM

REGISTRATION
CHAIRPERSON: Leslie Frost, 6K Inc.
MEMBERS:
Mark Abshire
Vince Anewenter, MSOE
Elizabeth Goode, GoodeInk
Kevin Zaras, Covestro

CONTACT: REGISTRATION@AMUG.COM

SCHOLARSHIP
CHAIRPERSON: Brett Charlton, BD
MEMBERS:
Claire Belson, Emerson Automation Solutions
Sean Dobson, Vertex Manufacturing
Maddie Frank, Fabric8Labs
Clay Guillory, Titan Robotics
Rajeev Kulkarni, 3D Systems
Bob Markley, Addman Engineering
Thomas Murphy, Shapeways
Kate Schneidau, Jabil

CONTACT: SCHOLARSHIP@AMUG.COM

SPONSOR & EXHIBITOR
CHAIRPERSON: Andrew Allshorn, AT 3D-SQUARED
MEMBERS:
Tim Bell, Siemens

CONTACT: VICEPRESIDENT@AMUG.COM

TECHNICAL COMPETITION
CHAIRPERSON: Bonnie Meyer
MEMBERS:
Bruce Bradshaw, 6K Inc.
Jay Dinsmore, Dinsmore, Inc.
Youping Gao, Castheon
Ed Graham, ProtoCAM
Evan Kirby, Materialise

CONTACT: TECHCOMP@AMUG.COM

TRACK LEADER
CHAIRPERSON: Edward Graham, ProtoCAM
MEMBERS:
Bob Diaz, College of Southern Nevada
Giles Gaskell, Hexagon
Paul Hojan, Christie Digital
Zac Holcomb, Additive America
Vadim Pikhovich, Magma Foundry Technologies
Colton Rooney, EMI Corporation
Alex Roschli, Oak Ridge National Laboratory
Nate Schumacher, Midwest Prototyping
Tom Sorovetz
Shannon VanDeren, Layered Mfg. & Consulting
Scott Volk, Keselowski Advanced Manufacturing
Jordan Weston, MSOE

CONTACT: TRACKLEADER@AMUG.COM

OPERATIONS COMMITTEES

EXECUTIVE
CHAIRPERSON: Carl Dekker, Met-L-Flo
MEMBERS:
Vince Anewenter, MSOE
Andrew Allshorn, At 3D Squared
Leslie Frost, 6K Inc.

CONTACT: PRESIDENT@AMUG.COM

FINANCE
CHAIRPERSON: Vince Anewenter, MSOE

CONTACT: TREASURER@AMUG.COM

GOVERNANCE
CHAIRPERSON: Leslie Frost, 6K Inc.
MEMBERS:
Vince Anewenter, MSOE
Carl Dekker, Met-L-Flo
Elizabeth Goode, GoodeInk

CONTACT: SECRETARY@AMUG.COM

INTERNATIONAL
CHAIRPERSON: Stefan Ritt, Fehrmann Alloys GmbH & Co. KG
MEMBERS:
Andrew Allshorn, AT 3D-SQUARED
Graham Tromans, GP Tromans Associates
Dror Danai, XJet

CONTACT: INTERNATIONAL@AMUG.COM

MARKETING
CHAIRPERSON: Kim Killoran, Stratasys
MEMBERS:
Kim Brown, ASTM
Kristen Eisiminger, EOS North America
Danny Levy, Influit Energy
Tuan TranPham, Azul 3D

CONTACT: MARKETING@AMUG.COM

MEMBERSHIP
CHAIRPERSON: Bill Macy, Titan Robotics
MEMBERS:
Glen Drebes, Tinker AFB
Andrew Graves, Covestro
Jennifer Johns, University of Bristol
Bob Markley, Addman
Tryggve Rogers, Beehive3D
Nate Schumacher, Midwest Prototyping
Roxanne Warren, Morf3D

CONTACT: MEMBERSHIP@AMUG.COM

NEW MEMBER
CHAIRPERSON: Derek Ellis, Authentise
MEMBERS:
Phil Abshire
Sean Dobson, Vertex Manufacturing
Matthew Gray, Boeing (posthumous)
Maddie Frank, Fabric8Labs
Jim Harrison, nScrypt
Nick Licari, CATI
Dana McCallum, Mantle
Kate Schneidau, Jabil
John Sorvillo, Westwood Preparatory Academy

CONTACT: NEWMEMBER@AMUG.COM

NOMINATING
CHAIRPERSON: Paul Bates, ASTM International
MEMBERS:
Ray Chu, PADT
Jim Harrison, nScrypt
Larry Monahan, BD
Robin Van Bragt, Eagle Design & Technology

CONTACT: NOMCOM@AMUG.COM

PARTNERSHIP
CHAIRPERSON: Gary Rabinovitz, Reebok
MEMBERS:
Tim Bell, Siemens
Todd Grimm, T. A. Grimm & Assocs.

CONTACT: PARTNERS@AMUG.COM

VOLUNTEER
CHAIRPERSON: Jamie Cone, BD
MEMBERS:
Kevin Ayers
Leslie Frost, 6K Inc.
Gary Rabinovitz, Reebok
Renee Bourdeau

CONTACT: VOLUNTEER@AMUG.COM

AMUG BOARD OF DIRECTORS

1988
Chairperson: Dick Aubin, Pratt & Whitney
Vice-Chairperson: Tom Kerschensteiner, AMP
Secretary: Dave Flynn, Prototype Express
Treasurer: Dave Flynn, Prototype Express
Site Coordinator: Peter Sferro, Ford Motor Company

1989
Chairperson: Dick Aubin, Pratt & Whitney
Vice-Chairperson: Tom Kerschensteiner, AMP
Secretary: Dave Flynn, Prototype Express
Treasurer: Dave Flynn, Prototype Express
Site Coordinator: Peter Sferro, Ford Motor Company

1990
Chairperson: Tom Kerschensteiner, AMP
Vice-Chairperson: Dave Flynn, Prototype Express
Secretary: Frost Prioleau, Plynetics
Treasurer: Frost Prioleau, Plynetics
Site Coordinator: Jim Southard, Pratt & Whitney
Past Chairperson: Dick Aubin, Pratt & Whitney

1991
Chairperson: Dave Flynn, Prototype Express
Vice-Chairperson: Frost Prioleau, Plynetics
Secretary: Doug Young, General Motors
Treasurer: Doug Young, General Motors
Site Coordinator: Jim Southard, Pratt & Whitney
Past Chairperson: Tom Kerschensteiner, AMP

1992
Chairperson: Dave Flynn, Prototype Express
Vice-Chairperson: Frost Prioleau, Plynetics
Secretary: Ed Garguilo, duPont
Treasurer: Ed Garguilo, duPont
Site Coordinator: Jim Southard, Pratt & Whitney

1993
Chairperson: Frost Prioleau, Plynetics
Vice-Chairperson: Ed Garguilo, duPont
Secretary: Elaine Persall, Clemson University
Treasurer: Jeff Smith, PCC
Site Coordinator: Jim Southard, Pratt & Whitney
Past Chairperson: Dave Flynn, Prototype Express

1994
Chairperson: Ed Garguilo, Dupont
Vice-Chairperson: Clint Atwood, Sandia National Laboratories
Secretary: Elaine Persall, Clemson University
Treasurer: Al DeWitt, Laserform
Site Coordinator: Jim Southard, Pratt & Whitney
Past Chairperson: Frost Prioleau, Plynetics

1995
Chairperson: Clint Atwood, Sandia National Laboratories
Vice-Chairperson: Elaine Persall, Clemson University
Secretary: Beth Israelnaim, Becton Dickinson
Treasurer: Al DeWitt, Laserform
Site Coordinator: Tom Sorovetz, Chrysler Corporation
3D Systems Advisor: Susan Arellano, 3D Systems, Inc.

1996
Chairperson: Elaine Persall, Clemson University
Vice-Chairperson: Al DeWitt, Laserform
Secretary: Beth Israelnaim, Becton Dickinson
Treasurer: John Thiell, Prototype Express, Inc.
Site Coordinator: Tom Sorovetz, Chrysler Corporation
3D Systems Advisor: Susan Arellano, 3D Systems, Inc.
Past Chairperson: Clint Atwood, Sandia National Laboratories

1997
Chairperson: John Theill, Plynetics Express
Vice-Chairperson: Rob Connelly, Fineline Prototyping
Secretary: Bob Flint, Prototype Express
Treasurer: Joe Allison, Solid Concepts
Site Coordinator: Tom Sorovetz, Chrysler Corporation
3D Systems Advisor: Janine McQuaid, 3D Systems, Inc.
Past Chairperson: Elaine Persall, Clemson University

1998
Chairperson: Rob Connelly, Fineline Prototyping
Vice-Chairperson: Joe Allison, Solid Concepts, Inc.
Secretary: Steve Deak, Hasbro, Inc.
Treasurer: Bronson Hokuf, duPont
Site Coordinator: Tom Sorovetz, Chrysler Corporation
3D Systems Advisor: Patti Brown, 3D Systems, Inc.
Past Chairperson: John Theill, Plynetics Express

1999
Chairperson: Joe Allison, Solid Concepts, Inc.
Vice-Chairperson: Steve Deak, Hasbro, Inc.
Secretary: Guy Bourdeau, Beckman Coulter
Treasurer: Bob Olsen, Molex
Site Coordinator: Tom Sorovetz, Chrysler Corporation
3D Systems Advisor: Patti Brown, 3D Systems, Inc.
Past Chairperson: Rob Connelly, Fineline Prototyping

2000
Chairperson: Steve Deak, Hasbro, Inc.
Vice-Chairperson: Jim Harrison, 3Dimensional Engineering
Secretary: Doug Greenwood, Square D
Treasurer: Bob Olsen, Molex
Site Coordinator: Tom Sorovetz, Daimler Chrysler
3D Systems Advisor: Patti Brown, 3D Systems, Inc.
Past Chairperson: Joe Allison, Solid Concepts, Inc.

2001
Chairperson: Jim Harrison, 3Dimensional Engineering
Vice-Chairperson: Bruce Okkema, Eagle Design and Technology
Secretary: Derek Ellis, PTE Distribution
Treasurer: Guy Bourdeau, Beckman Coulter
Site Coordinator: Tom Sorovetz, Daimler Chrysler
3D Systems Advisor: Patti Brown, 3D Systems, Inc.
Past Chairperson: Steve Deak, Hasbro, Inc.

2002
Chairperson: Bruce Okkema, Eagle Design and Technology
Vice-Chairperson: Bruce LeMaster, Applied Rapid Technologies
Secretary: Derek Ellis, PTE Distribution
Treasurer: Guy Bourdeau, Beckman Coulter
Site Coordinator: Tom Sorovetz, Daimler Chrysler
3D Systems Advisor: Patti Brown, 3D Systems, Inc.
Past Chairperson: Jim Harrison, 3Dimensional Engineering

2003
Chairperson: Bruce LeMaster, Applied Rapid Technologies
Vice-Chairperson: Derek Ellis, PTE Distribution
Secretary: Carl Dekker, Met-L-Flo, Inc.
Treasurer: Guy Bourdeau, Beckman Coulter
Site Coordinator: Tom Sorovetz, Daimler Chrysler
3D Systems Advisor: Patti Brown, 3D Systems, Inc.
Past Chairperson: Bruce Okkema, Eagle Design and Technology

2004
Chairperson: Steve Deak, Huntsman Advanced Materials
Vice-Chairperson: Joe Llamas, DSM Somos
Secretary: Carl Dekker, Met-L-Flo, Inc.
Treasurer: Guy Bourdeau, 3DSNASUG, Inc.
Site Coordinator: Tom Sorovetz, Daimler Chrysler
3D Systems Advisor: Patti Brown, 3D Systems, Inc.
Past Chairperson: Bruce LeMaster, Applied Rapid Technologies

2005
Chairperson: Steve Deak, GE Aviation
Vice-Chairperson: Bruce LeMaster, Applied Rapid Technologies
Secretary: Andrew Layton, Georgia Institute of Technology
Treasurer: Guy Bourdeau, Huntsman Advanced Materials
Site Coordinator: Tom Sorovetz, Daimler Chrysler
3D Systems Advisor: Patti Brown, 3D Systems, Inc.

2006
Chairperson: Bruce LeMaster, Applied Rapid Technologies
Vice-Chairperson: Bob Zubrickie, Tyco Electronics
Secretary: Andrew Layton, Georgia Institute of Technology
Treasurer: Guy Bourdeau, Huntsman Advanced Materials
Site Coordinator: Tom Sorovetz, Daimler Chrysler
3D Systems Advisor: Patti Brown, 3D Systems, Inc.
Past Chairperson: Steve Deak, GE Aviation

2007
President: Bob Zubrickie, Tyco Electronics
Vice-President: Sheku Kamara, Milwaukee School of Eng
Vice President: Brian Bauman, DSM Somos
Secretary: Brad Palumbo, Phoenix Analysis and Design
Treasurer: Guy Bourdeau, Huntsman Advanced Materials
Site Coordinator: Tom Sorovetz, Daimler Chrysler
Past Chairperson: Bruce LeMaster, Applied Rapid Technologies

2008
President: Sheku Kamara, Milwaukee School of Eng
Vice-President: Luis Folgar, Paramount Industries
Vice President: Brian Bauman, DSM Somos
Secretary: Brad Palumbo Phoenix Analysis and Design
Treasurer: Guy Bourdeau, Huntsman Advanced Materials
Site Coordinator: Tom Sorovetz, Daimler Chrysler
Past Chairperson: Bob Zubrickie, Tyco Electronics

2009
President: Brian Bauman, DSM Somos
Vice-President: Luis Folgar, Paramount Industries
Vice President: Tom Mueller, Express Pattern
Secretary: Bob Zubrickie, Tyco Electronics
Treasurer: Guy Bourdeau, Huntsman Advanced Materials
Site Coordinator: Tom Sorovetz, Daimler Chrysler
Past Chairperson: Sheku Kamara, Milwaukee School of Engineering

2010
President: Luis Folgar, Paramount Industries
Vice-President: Tim Gornet, University of Louisville
Vice President: Stewart Davis, CRP Technologies
Secretary: Bob Zubrickie, Tyco Electronics
Treasurer: Guy Bourdeau, Huntsman Advanced Materials
Site Coordinator: Tom Sorovetz, Daimler Chrysler
Past Chairperson: Brian Bauman, DSM Somos

2011
President: Tim Gornet, University of Louisville
Vice-President: Mark Abshire, DSM Somos
Vice President: Gary Rabinovitz, Reebok International
Secretary: Scott Schermer, SC Johnson
Treasurer: Guy Bourdeau, Huntsman Advanced Materials
Site Coordinator: Tom Sorovetz, Chrysler Group, LLC
Past Chairperson: Luis Folgar, Paramount Industries

2012
President: Gary Rabinovitz, Reebok International
Vice-President: Mark Abshire, DSM Somos
Vice President: Scott Schermer, SC Johnson
Secretary: Bret Bordner, Laser Reproductions
Treasurer: Guy Bourdeau, 3D Systems/ Vince Anewenter, MSOE
Event Manager: Tom Sorovetz, Chrysler Group, LLC
Past President: Tim Gornet, University of Louisville
AM Industry Advisor: Todd Grimm, T.A. Grimm & Associates

2013
President: Gary Rabinovitz, Reebok International
Vice-President: Bret Bordner, Laser Reproductions
Vice President: Mark Barfoot, Christie Digital
Secretary: Mark Abshire, DSM Somos (replacement)
Treasurer: Vince Anewenter, MSOE
Event Manager: Tom Sorovetz, Chrysler Group, LLC
Past President: Tim Gornet, University of Louisville
AM Industry Advisor: Todd Grimm, T.A. Grimm & Associates

2014
President: Bret Bordner, Laser Reproductions
Vice-President: Mark Barfoot, Hyphen
Vice President: Derek Ellis, CATI
Secretary: Kim Killoran, Stratasys
Treasurer: Vince Anewenter, MSOE
Event Manager: Thomas Sorovetz, Chrysler Group, LLC
Past President: Gary Rabinovitz, Reebok Advanced Concepts
AM Advisor: Mark Abshire, Somos Materials by DSM
AM Industry Advisor: Todd Grimm, T.A. Grimm & Associates

2015
President: Mark Barfoot, Hyphen
Past President: Bret Bordner (formerly Laser Reproductions, purchased by 3D Systems)
Vice-President: Steve Deak, GE
Vice President: Dana Foster, rp+m
Secretary: Kim Killoran, Stratasys
Treasurer: Vince Anewenter, MSOE
Event Manager: Thomas Sorovetz, Fiat Chrsyler Automobiles (FCA)
AM Industry Advisor: T.A. Grimm & Associates
Advisor: Gary Rabinovitz, Reebok

2016
President: Mark Barfoot, Hyphen
Past President: Bret Bordner (formerly Laser Reproductions, purchased by 3D Systems)
Chairman: Gary Rabinovitz, Reebok International
Treasurer: Vince Anewenter, MSOE
Secretary: Kim Killoran, Stratasys
Vice President: Steve Deak, GE
Vice President: Dana McCallum, Carbon
Event Manager: Thomas Sorovetz, FCA US LLC
AM Industry Advisor: Todd Grimm, T.A. Grimm & Associates

2017
President: Steve Deak, GE Aviation
Past President: Mark Barfoot, University of Waterloo
Chairman: Gary Rabinovitz, Reebok
Treasurer: Vince Anewenter, MSOE
Secretary: Kim Killoran, Stratasys
Vice President: Paul Bates, UL
Vice President: Dana McCallum, Carbon
Event Manager: Thomas Sorovetz, FCA US LLC
AM Industry Advisor: Todd Grimm, T.A. Grimm & Associates

2018
President: Paul Bates, UL
Treasurer: Vince Anewenter, MSOE
Secretary: Kim Killoran, Stratasys
Vice President: Carl Dekker, Met-L-Flo
Vice President: Jamie Cone, BD
Event Manager: Thomas Sorovetz, FCA US LLC
AM Industry Advisor: Todd Grimm, T.A. Grimm & Associates
Chairman: Gary Rabinovitz, Reebok
Past President: Mark Barfoot, Cimetrix Solutions

2019
President: Paul Bates, UL
Treasurer: Vince Anewenter, MSOE
Secretary: Leslie Frost, GE Additive
Vice President: Carl Dekker, Met-L-Flo
Vice President: Jamie Cone, BD
Event Manager: Thomas Sorovetz, FCA US LLC
AM Industry Advisor: Todd Grimm, T.A. Grimm & Associates
Chairman: Gary Rabinovitz, Reebok
Past President: Mark Barfoot, EWI

2020 (term: July 1, 2019 – June 30, 2021)
CONFERENCE POSTPONED, TERM EXTENDED THROUGH 2021
President: Carl Dekker, Met-L-Flo
Treasurer: Vince Anewenter, MSOE
Secretary: Leslie Frost, GE Additive
Vice President: Jamie Cone, BD
Vice President: Andrew Allshorn, AT 3-D Squared
Event Manager: Thomas Sorovetz, Stellanits
AM Industry Advisor: Todd Grimm, T.A. Grimm & Associates
Chairman: Gary Rabinovitz, Reebok
Past President: Paul Bates, UL

Sunday, April 3 starting at 12:01am until Monday, April 4 closing at 11:59pm

2022 BOARD OF DIRECTORS ELECTION

2022-2024 Board of Directors Elections for:

President
Vice President
Director, Membership

Voting takes place via the AMUG Mobile App.

Election Results will be announced at the AMUG Business Meeting

Wednesday, April 6 at 11:00am
International Ballroom, 2nd Floor

AMUG AWARDS AND RECOGNITIONS

At AMUG we consider ourselves very fortunate. There are many passionate AMUG members and industry associates that contribute to the success of pulling off a large conference managed by all volunteers. We would like to take a moment to say thank you to everyone that participated in the 2022 AMUG Education & Training Conference. We truly appreciate your continued support and dedication.

AMUG AWARDS

AMUG is an all-volunteer organization that recognizes an individuals contribution to the Users Group and the AM community.

Lifetime Achievement Award - AMUG Lifetime Achievement Award is presented to individuals with more than 20 years of service to AMUG and is at the discretion of the Executive Committee.

President's Award - "The President's Award is in recognition of exemplary vision, leadership, and tireless years of service for the advancement of the Additive Manufacturing Users Group and is at the President's discretion.

DINO (Distinguished INnovator Operator Award) – The DINO is presented to members with extraordinary AM expertise and actively shares that knowledge and contributes to AMUG members and the industry.

Innovators Showcase - This honor recognizes those that have had a significant impact on the additive manufacturing industry over an extended period of time.

Scholarship Award – These awards honor the memory of two long-time and avid supporters of AMUG. The Guy E. Bourdeau Scholarship is for Students, and the Randy Stevens Scholarship is for Teachers/Professors.

Technical Competition Awards –Advanced Concepts, Advanced Finishing, and Members Choice Award, members and peers awarded for their unique applications as well as their finishing capabilities of additive manufacturing methods.

PRESIDENT'S AWARD

"In recognition of exemplary vision, leadership, and tireless years of service for the advancement of the Additive Manufacturing Users Group."

Service for the advancement of the Users Group. This is the cornerstone of the President's Award. However, this can hardly begin to describe the devotion and commitment of the person honored with the President's Award.

Perseverance: Recipients of this award have served when called upon, they step up to ensure whatever needs to be accomplished is done and without reservation.

Passion: The President's award recipient goes above and beyond what is expected. Not because it's "a job", but because the recipient truly loves the AMUG organization and industry.

Selflessness: Time and time again, the President's award recipient has put personal gain and recognition aside to push the Users Group to a higher level.

Professionalism: The President's Award recipient epitomizes professionalism. In all things, this Presidents' Award recipient holds high standards in every task and always brings great ideas to the table on a consistent basis.

And maybe most important, ***Friendship***. The Users Group is deeply rooted in friendship. Whether our businesses are competitors or not, we always find a way to make the Users Group a time to catch up with old friends while expanding our circle with new friends.

AMUG PRESIDENT'S AWARD RECIPIENTS

2000	Thomas A. Sorovetz	2014	Gary Rabinovitz
2006	Patti Brown	2016	Mark Abshire
2007	Guy E. Bourdeau	2019	Elizabeth Goode
2010	Robert Zubrickie	2021	Vince Anewenter
2013	Timothy Gornet	2021	Terry Hoppe - posthumously

LIFETIME ACHIEVEMENT AWARD

AMUG Lifetime Achievement Award is presented to individuals with more than 20 years of service to AMUG.

AMUG LIFETIME ACHIEVEMENT AWARD RECIPIENTS

2018	Thomas A. Sorovetz - 25 years of service



THANK YOU

AMUG has grown, expanded and evolved to keep pace with the sweeping changes in the additive manufacturing industry. The Users Group has been hard at work since 1988 as a volunteer organization working with OEMs to design a community focused on advancing the uses of additive manufacturing technology.

The Business Center of Marshfield
MOS Copy & Print EZ Post
"Create..., Print..., Assemble..., Ship"

PROGRAM PRINTING

Ed Winters PHOTOGRAPHY
www.edwintersphotography.com

EVENT PHOTOGRAPHY

EventNeat Inc
WORLDWIDE EVENT INDUSTRY SOLUTIONS

LEAD RETRIEVAL

FELIX AND FINGERS
DUELING PIANOS
FELIXANDFINGERS.COM

ENTERTAINMENT

GE Additive

PRINTING OF METAL DINOS

GoodeInk

STRATEGIC CONSULTING
PROGRAM PRODUCTION

HPG
HOSPITALITY PRODUCTION GROUP

AUDIO VISUAL

J. J. JINKLEHEIMER AND COMPANY
Quality SCREEN PRINTING • EMBROIDERY & PROMOTIONAL PRODUCTS

AWARDS AND CLOTHING

MSOE UNIVERSITY

PRINTING OF DINOS

PictureItOnThis.com

PRINTING OF DINO PLATES

RED OAK
MEETINGS & EVENTS

OFFICIAL SERVICE PROVIDER

REPLIFORM INC
PIONEERING INNOVATIVE CUSTOM METAL PLASTIC COMPOSITE SOLUTIONS

PLATING OF DINOS

SCAD

PRINTING OF SPONSOR BANNERS IN GENERAL SESSION AREA

STARKS STUDIOS
CORPORATE . WEDDINGS . REAL ESTATE

EVENT PHOTOGRAPHY AND VIDEO

T.A. Grimm
Additive Manufacturing

EMCEE AND PUBLIC RELATIONS

2022 AMUG CONFERENCE SPONSORS

DIAMOND SPONSORS







































TITANIUM SPONSOR

NCP LEASING, INC. EQUIPMENT FINANCE

PLATINUM SPONSORS

3D SYSTEMS Additive Manufacturing Solutions
3DXTECH Additive Manufacturing
3YOURMIND
AddUp
ARBURG
ARKEMA
BMF BOSTON MICRO FABRICATION
Carbon
DYE MANSION
equispheres
EVONIK Leading Beyond Chemistry
Markforged
MASSIVit 3D
materialise
NANODIMENSION
OQTON
POSTPROCESS Automated. Intelligent. Comprehensive.
RENISHAW apply innovation™
AMERICA
SANDVIK
SIEMENS
SIGMA LABS The QA Standard for Additive Manufacturing
TITAN ROBOTICS LTD.
WÜRTH ADDITIVE GROUP
XACT METAL
xerox™

Platinum Plus Sponsor

GOLD SPONSORS

3D Metal Printing Magazine (M)
3D Printing Industry (M)
3Degrees
3Dnatives (M)
3Dprint.com (M)
6K Additive
Additive Industries North America
The Additive Report (M)
Aligned Vision
AM Polymers GmbH
AM Solutions | A Brand of the Rösler Group (+)
AMT
AON3D (+)
ASTM International-AM CoE
B9Creations (+)
BigRep America
BuildParts by CIDEAS, Inc
CoreTechnologie (+)
DEVELOP3D (M)
Digital Engineering 24/7 (M)
Dinsmore, Inc.
Element Materials Technology
EWI
GKN Forecast 3D
Global Advanced Metals
GoProto, Inc.
IFSC
Inkbit Corporation
INTAMSYS Technology, Inc (+)
KIMYA
Make Parts Fast (M)
Medical Device Developments (M)
Metal AM magazine (M)
Midwest Prototyping A Prototek Company
North Star Imaging
OMNI3D (+)
Paxis
Praxair Surface Technologies
Raise3D Technologies (+)
RePliForm Inc.
Sciaky, Inc.
SLM Solutions
The TCT Group (M)
Ultimaker (+)
University of Dayton Research Institute
Visitech America

(+) GOLD PLUS SPONSOR
(M) GOLD MEDIA PARTNER

SILVER SPONSORS

3D Control Systems
Cubicure GmbH
GEFERTEC
Hoosier Pattern
Pivot AM Auctions

BRONZE SPONSORS

AlphaSTAR
Elementum 3D
Fillamentum
Lithoz America, LLC
Rapid Prototyping Services
voxeljet America Inc



2022
AMUG Conference
April 3-7, 2022

TELEPHONE
P: +1 623-242-2172

E-MAIL
info@amug.com
www.amug.com

ADDRESS
P.O. Box 510243
Milwaukee, WI 53203