

TMS2023

NETWORKING AND PROFESSIONAL DEVELOPMENT EVENTS

AT TMS2023

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More than just a technical conference, the TMS 2023 Annual Meeting & Exhibition (TMS2023) offered attendees ample opportunity to meet other members, exchange ideas, establish working collaborations, and develop lasting friendships. These pages provide a look at the networking, social, and professional development events at TMS2023 that helped attendees to make valuable connections and to grow their skillsets.

TMS-AIME AWARDS CEREMONY

When **Carolyn Hansson** presented the 2023 Acta Materialia Gold Medal Award to **Tresa Pollock** at the TMS-AIME Awards Ceremony, Hansson pointed out that the award had been established in 1973 but was being awarded to a woman for the first time in its 50-year history. The announcement brought a standing ovation for Pollock and Hansson and provided a memorable moment from this joint ceremony hosted by TMS and the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME). The event took place on Wednesday, March 22, to celebrate the achievements of a wide range of professionals and students, with more than 50 individuals honored over the course of the evening.

The ceremony included the presentation of the 2023 Class of TMS Fellows. The Fellow award is the Society's highest honor, and each of the new inductees gave a few brief comments upon accepting their awards.

Many of the awardees credited their success to the teams that they worked with and the mentors who had helped them along the way.



Carolyn Hansson, left, congratulates **Tresa Pollock**, right, at the 2023 TMS-AIME Awards Ceremony. In the background, 2023 TMS President **Brad Boyce** (left) and 2022 President **Jud Ready** (right) join the crowd's standing ovation.



"These efforts and the knowledge gained aren't accomplished alone. I'm not standing up here because of what I did but because of what we did."

—Irene Beyerlein,
2023 TMS Fellow



"I think we all should think more about how we can lift others up, instead of about winning. I hope I can continue the tradition of lifting the people up around me."

—James Warren,
2023 TMS Fellow

You can view a recording of this year's awards ceremony at www.youtube.com/ChannelTMS.

WORKSHOPS AND SHORT COURSES



Harriet Kung, U.S. Department of Energy, offered ten recommendations for career success at the inaugural Asian/Pacific Islander (API) Workshop and Reception at TMS2023.

TMS2023 hosted five workshops and short courses on technical and professional topics. The offerings included three events that required paid registration: Introduction to Aluminum Electrolysis Course, Lead-Free Solder and Interconnect Workshop, and Additive Manufacturing Materials and Processes Workshop. In addition, two all-new professional development workshops were offered, at no charge, to all TMS2023 attendees.

The **Communications Skills Workshop** featured a two-part conversation designed to help participants communicate

technical ideas to various audiences more clearly. In the first part of the workshop, **Eric Thiesen** of Metglas Inc., offered tips on creating targeted communications. "Make sure that you know your story," he advised the audience, because if you don't know what it is you want to communicate, he pointed out, your audience won't either. Following Thiesen's presentation, **Michael Bakas**, Army Research Office, looked at creating clear and effective PowerPoint presentations. Bakas echoed Thiesen's advice, noting that you need to know exactly what message your audience should receive. "For most presentations," Bakas said, "people want to hear the key takeaways first. Then provide the technical details."

This workshop was organized by the TMS Professional Development Committee, chaired by **Kathy Lu**.

The second new workshop was the inaugural **Asian/Pacific Islander (API) Workshop and Reception**. Four invited speakers gave introductory talks that shared tips and advice on how to build a successful career and navigate the professional world as an API. Following the presentations, the speakers engaged in an informal panel discussion with the audience. The speakers were: **Meimei Li**, Argonne National Laboratory; **Vincent Yuan**, Los Alamos National Laboratory; **Harriet Kung**, U.S. Department of Energy; and **Amit Misra**, University of Michigan. Misra's presentation was titled "How Do I Advocate for Myself?" The wording of this question was deliberate. "You have to do the work and take the initiative for yourself," he told the audience. "In your professional and personal life, you have to be your own advocate."

2023 TMS MATERIALS BOWL



Minnesota Twins team members (from left to right) **Moujhuri Sau**, **Ashlie Hamilton**, **Trevor Totten**, and **Regina Gonzalez Lona** celebrate their Materials Bowl win at TMS2023.

The Minnesota Twins team—from the University of Minnesota-Twin Cities—took home the TMS Materials Bowl trophy for the second consecutive year. **Ashlie Hamilton**, the only member to compete on both winning teams, was joined in the 2023 competition by team mates **Moujhuri Sau**, **Trevor Totten**, and **Regina Gonzalez Lona**. Carnegie Mellon University's Titanium Tartans took second place, and the University of Florida team placed third.

The competition, which consisted of two rounds of play, was followed by an informal networking reception that was open to all TMS2023 attendees.

CAREER DEVELOPMENT SESSIONS FOR STUDENTS

Writing a cover letter? Shorter is better. Need a letter of reference? Provide your referee with ample time to write it and guidance on what to include. Not sure what type of position you want? Talk to as many people as possible. These were just a few of the topics covered—and a sampling of the advice given—during the **Ace the Job Hunt Workshop**, a new event offered for students and early-career professionals at TMS2023.



From left to right, panelists **Wendy Gu**, **Chukwunwike Iloeje**, **Chelsea Appleget**, and **Emma White** discuss how to Ace the Job Hunt at a workshop for students and early-career professionals.

A panel of professionals representing industry, academia, and government offered tips and answered questions in this interactive event.

Panelists included: **Wendy Gu**, Stanford University; **Chukwunwike Iloeje**, Argonne National Laboratory; **Chelsea Appleget**, The Aerospace Corporation; and **Emma White**, DECHEMA-Forschungsinstitut. The event was organized by the TMS Emerging Professionals Committee.

This new event followed the **Student Career Forum**, a regular feature of the TMS Annual Meeting & Exhibition's student program, in which professionals share stories of their career paths. This year's Student Career Forum participants included: **Jun Hu**, Cleveland-Cliffs; **Soumya Varma**, KLA Corporation; **Mary O'Brien**, Los Alamos National Laboratory; **Mengying Liu**, Washington and Lee University; **Ian Daniel McCue**, Northwestern University; and **Damien Turret**, IMDEA Materials Institute. You can watch excerpts from this year's discussions now at www.youtube.com/ChannelTMS.

EMERGING PROFESSIONAL TUTORIAL LUNCHEON AND LECTURE



At the Emerging Professional Tutorial Luncheon and Lecture, three invited speakers gave talks on their background, research, and tips for fellow emerging professionals in the materials science and engineering fields. **Danielle Cote** (pictured, left), Worcester Polytechnic Institute, presented "The Role of Early Career Professionals in Increasing Diversity in the STEM Professions." She discussed methods of increasing the retention of women in the professional sector and included tips for managing a work-family

life balance. **Grace Gu** (pictured, center), University of California, Berkeley, discussed her research using algorithm-driven approaches to develop composite prototypes inspired by naturally occurring phenomena, like the structure of a conch shell. She encouraged participants to apply these lessons to their everyday lives and prompted attendees to learn from the things that work for others, but to adapt those to fit their own lives, stating "life is complicated, but there are infinite opportunities." **Yu Zou** (pictured, right), University of Toronto, gave the talk, "Harnessing Defects in Materials: An Analogy with Professional Development." Zou began by sharing some of the personal barriers he overcame to reach his career goals. He emphasized that defects not only make materials (and people) more interesting but also stronger.

SCENES FROM NETWORKING RECEPTIONS

TMS Welcome Reception



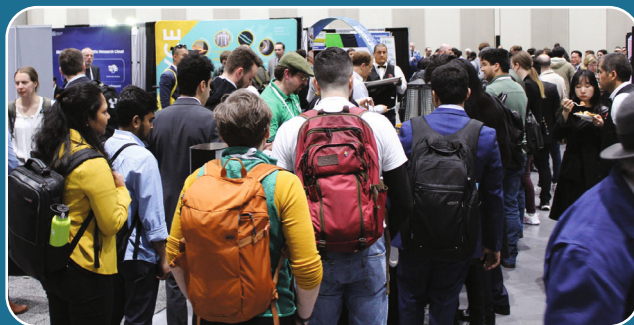
TMS Fellows and Invited Guests Reception



TMS-AIME Awards Ceremony Reception



Exhibit Opening Reception and Poster Session I and Exhibit Hall Happy Hour and Poster Session II



DIVERSITY AND INCLUSION BREAKFAST

More than 65 people participated in the **Fresh Coffee, Fresh Ideas: Diversity and Inclusion Breakfast**, organized by the TMS Diversity, Equity, and Inclusion (DEI) Committee. Over breakfast, participants discussed topics related to diversity and inclusion such as moving beyond imposter syndrome, DEI in the training journey, and overcoming anxiety in the workplace. The audience also participated in an interactive poll to provide input on plans for the Fifth Summit on Diversity in the Minerals, Metals, and Materials Professions (DMMM5), to be co-located with the TMS 2025 Annual Meeting & Exhibition (TMS2025) in Las Vegas, Nevada.



EPD/MPMD LUNCHEON



“Collectively, we are not competing against each other, but against time.” This was part of **Paramita Das's** message to the audience assembled at the Extraction & Processing Division (EPD)/Materials Processing & Manufacturing Division (MPMD) luncheon at TMS2023. Das is global head of marketing,

development and ESG (chief marketing officer); metals and minerals, Rio Tinto. She leads marketing for metals and minerals globally and the establishment of a more environmental, social, and governance (ESG)-centric approach in the Atlantic region.

“No longer just a ‘nice to have,’ ESG is going to be a must have,” she said, in a talk that outlined how an ESG outlook has led to greater transparency and the development of low- and zero-carbon products.

SMD/FMD LUNCHEON

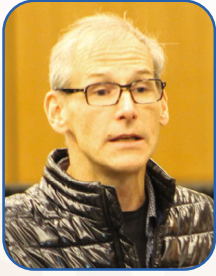


Members of the TMS Structural Materials Division (SMD) and Functional Materials Division (FMD) came together to recognize their scholarship and award recipients, share lunch with their colleagues, and hear from invited speaker **Roger Narayan**, University of North Carolina and North Carolina State

University. Narayan's talk, “Additive Manufacturing of Medical Devices: Past, Present, and Future,” began with a look at the early innovators in biomaterials—who were largely surgeons, rather than materials scientists—progressing to more current developments, such as wearable devices and 3D printed microneedles.

The presentation explored the use of several types of additive manufacturing technologies to create advanced medical devices, including devices for transdermal drug delivery and transdermal sensing.

LMD LUNCHEON



“We make impossible parts,” said **Slade Gardner**, president and founder of Big Metal Additive and invited speaker at the Light Metals Division (LMD) Luncheon at TMS2023. Gardner explained that some parts are impossible due to their geometries, while others are just impossible to get due to supply chain issues.

During his talk, Gardner shared examples of projects that Big Metal Additive has developed using their hybrid metal additive manufacturing technology—including an unmanned underwater vehicle and a satellite made of additive-produced parts. Conventional satellite designs have labor-intensive assembly processes, so Gardner’s team wanted to create individual components that could be efficiently assembled. They allotted two weeks to assemble the components once they had been created; it took only two days. Based on this process, Gardner believes they could make and assemble a satellite in under 30 days.



In addition to Gardner’s presentation, the luncheon featured a talk by **Marley Downes**, Drexel University, who is the 2023 Light Metals Division Scholarship recipient. Downes gave a brief talk on her work with MXenes.



TECHNICAL COMMITTEE MEETINGS

In addition to the three division luncheons, which gathered attendees who share the same affiliation in TMS’s five technical divisions, all 34 of TMS’s technical committees met in person during the week of TMS2023 in San Diego.

TMS technical committees are made up of volunteer members who work together to develop technical programming for TMS conferences, organize technical topics to be published in *JOM: The Journal*, and provide many more key contributions to the Society. Within the TMS division structure, these groups provide a gathering place for members interested in a specific technical topic related to the broader minerals, metals, and materials community.

Technical committee membership is open to all active TMS members as a benefit of membership. If you were unable to attend a technical committee meeting at TMS2023 but would like to become involved in committee activities, please visit www.tms.org/Committees. There, you can view a complete listing of TMS committees, select the one that most closely matches your interests, and fill out the Technical Committee Interest form. A TMS representative will then follow up with additional information for you.

Not sure if you are a TMS member (and therefore eligible for committee membership)? Please keep in mind that all TMS2023 attendees who registered for the conference at the non-member professional registration rate received a complimentary TMS membership for the remainder of 2023. If you are still unsure of your membership status, log in to members.tms.org and visit your member profile.