

**Meetings Committee Zoom Meeting**  
March 20, 2024 (Wednesday) at 4:00pm ET

**Able to Participate**

Loucas Tsakalacos, MTGC Chair  
Stan Chou  
Ken Haenen  
Keith Brown  
Babu Chalamala  
Jeff McCallum  
Rob Shepherd  
Subhash Shinde  
Eileen Kiley, MRS  
Gopal Rao, MRS

**Unable to Participate**

Allison Beese

<b>ACTION ITEMS</b> listed below and highlighted in the minutes	
Name	Action
Ken Haenen	Follow-up with Babu, Eileen, and Gopal on PDSC commitment
MRS HQ	Schedule next meeting

**Agenda:**

Welcome and Introduction (Loucas)  
MTGC Charges and Updates (Loucas)  
MTGC Calendar (Loucas)  
Topical Staging Goals (Babu)  
Topical Staging Group Chair Discussions (Keith, Jeff, Rob, Subhash)  
PDSC Update (Ken)  
MASC Update (Stan)

**Minutes:**

MTGC Chair Loucas Tsakalacos opened the meeting by welcoming everyone and thanking them for joining, noting the late and early hour for Ken and Jeff, respectively.  
Loucas shared this is his first MTGC meeting as Chair and recognized the contributions made by previous Chair Lincoln Lauhon, noting he has big shoes to fill with Lincoln's departure  
Loucas provided a short overview of his bio, followed by brief introductions by each participant

**MTGC Charges and Updates**

Lincoln provided an overview of MTGC Charges, including PDSC and MASC

- Renewed terms for Ken and Stan as Chairs of their respective Subcommittees
- Met w/Differentiation and Industry Engagement
- Approved MRS-endorsed Biomimetics meeting in Nice
- Developed proposal for standing room only virtual event to be held between the Spring/Fall meetings (post-F25)
- Ongoing discussions for development of an NSF PREM virtual session at F25

## MTGC Calendar

Reviewed calendar of scheduled/planned meetings for 2024

### Topical Staging Goals

- support MRS products and programming
- expanded beyond emerging areas to include areas that have fallen off the cliff
- coordinate activities across MRS (publications and meetings)

Brief summary of each area:

- Biomaterials – graduated and doing quite well
- Artificial Intelligence – diverse community
- Quantum Materials – materials-centric area with growing interest
- Autonomous Materials – broad area; find some focus on what it means and identify opportunities to grow
- Metals – new group; had their first meeting on March 6
- Advanced Semiconductor Packaging – new group

Examples of Staging activities for building communities within MRS:

- MRS journals/news
- MRS Meetings
- Virtual activities
- Explanatory/introductory

### Topical Staging Group Chair Discussions

#### Metals Staging Group

Update provided by Babu on behalf of Allison Beese

Members:

- Allison Beese (Chair), Isabella Gallino, Suveen Mathaudhu, Ian McClure
- in discussions with two potential members
- seeking additional members from Industry, Europe, Asia-Pacific

Broad interest in building a sustainable MRS community

Initial kickoff meeting held on January 12

First meeting held on March 6 (at TMS Conference)

#### Artificial Intelligence Staging Group

Update provided by Keith Brown, Chair

Last AI meeting was at F23

Had a consistent Tutorial; transitioning to something that doesn't need to be "run" at each meeting

Two recent MRS Bulletin issues and accompanying webinars (Sept/Oct 2022 and Feb 2023)

At an interesting crossroad in that a lot of people are trying to claim AI, making it difficult to separate core AI vs. permeating/diffusing out

How to facilitate shopping abstracts

Don't want to risk losing AI because it's sneaking into other Symposia proposals

Maintain that place of leadership in MRS with AI

- ensure critical mass of a nucleus that is growing on a regular basis
  - have core sessions (fundamentals)
  - make sure MRS is the premier conference for AI

- requires coordination between MTGC/PDSC/Staging Groups to capture/sustain the key things

Activities:

- provide a forum for vendors and researchers to get on the same page regarding equipment requirements
- concern with AI being portrayed in a negative light (used negatively); define the narrative in a positive light
- consider specific awards around bringing AI into MRS

Quantum Materials

Update provided by Jeff McCallum, Chair

Report from a workshop at S22 was published in the March 24 issue of *MRS Bulletin*

Members:

- mindful that existing members have reduced capacity
- seeking new members who can cover topics that aren't well covered by the existing expertise
- have two (2) new members of the group
- in final negotiations with one (1) additional potential member

Interact with the AFOSI themes identified

- MRS support in those initiative
- Symposia in the coming years

Topological lacks cohesion; engaging to provide more focus

Broader has been patchy; bringing in new people to help incubate new proposals in the coming years

Develop Chairing skills

Essential for MTGC to look at Quantum as key themes to sustain; retain as part of the core for MRS

Abstracts sustaining or fluctuating?

- Symposia well supported, but concerned with the breadth of Symposia that have been proposed
- concerned about getting people to propose Symposia going forward
- S25 is more broad rather than focused
- Industry represented and do contribute, but not in a big way/driving
- Working proactively with Pubs/Gopal, but greater interface is probably needed

Device vs. Algorithmic – focused on fundamental materials (i.e., superconductors)

Autonomous Materials

Update provided by Rob Shepherd, Chair

Took time to figure out what a working group is and to improve participation in the group

Had been Responsive and Adaptive Materials; changed to Autonomous Materials

Difficulty in what it is, definition, submit Symposia related to the topic

Approaching many different disciplines and conferences talking to people and delivering the messages

Identified several communities (even at MRS) that have come and gone over the years; engage them

Symposia involving roboticists – useful and productive

Autonomous Materials confused with robotic synthesis of materials – has had to clarify

Pedagogical evolution that has transpired – submitting paper to Gopal shortly; goals, rank, definition

Autonomous Materials as a domain is really interesting – cuts across many areas

Seeking a niche where MRS can sustain a community – still evolving

Determine a core group

Themes for Pubs are welcome

2 ways to classify – autonomy, architectural complexity

Pull from traditional communities on the materials side vs. the device & applied side (e.g. MEMS, robotics, etc.) into the new vision

### Advanced Semiconductor Packaging

Update provided by Subhash Shinde, Chair

Started this activity last week

Recommends revising the name to Advanced Microsystems Integration to be more relevant

Members:

- recruit members over the next 4-6 weeks
- diverse list of potential members, with some committed
- consider adding someone from a National Lab

Staging Activities:

- Identify sub-topical areas of interest and form groups to drive staging activities
- Discuss potential Symposia topical areas to pitch to Meeting Chairs
- Discuss potential special issues of MRS publications
- Discuss potential topics for Webinars

Multiple conflicting conferences for Packaging

- potentially focus on the materials aspect to create a space for MRS
- area is a little out of the norm for MRS; consider a Tutorial as an introduction on Packaging

### **Program Development Subcommittee (PDSC) Update**

Recruiting new members since some have rolled off

Diversity is catching on

Online vs. In-person attendance; regularly not attending – need to make these meetings a priority

Differentiation remains a difficult job for Meeting Chairs to impose

New areas is the most difficult task for Meeting Chair

- receive many proposals which must be reduced to physically fit the meeting space
- also asked to get new proposals

Generally things are running as they should

PDSC drives the programming; facilitates the quality control

May need one-off discussions with Topical Staging Chairs, particularly Metals

**Follow-up with Ken (Babu/Eileen/Loucas)**

### **Meetings Assessment Subcommittee (MASC) Update**

Stan noted that he works in Advanced Packaging

Responsible for collecting surveys and understanding trends (i.e., Covid/post-Covid, Hybrid/in-person)

Relay the information to key groups – Meeting Chairs, MRS HQ (Eileen, Gopal)

Here to serve the Topical Staging Group Chairs

Rolling out the S24 survey soon

Steady group of committee members that spans the career spectrum, open to opportunities to improve diversity, particularly gender diversity

### **Final Thoughts**

Loucas again thanked the attendees for their participation and the rich discussion.

Next Meeting:

MTGC will meet in 3 months (HQ to schedule)

Loucas adjourned the meeting.