

CNMS UEC Agenda – Thursday, March 27, 2024

10:02 am Eastern Standard Time

Participants (attendees in blue)

Chair: Piran Kidambi (Vanderbilt)

Vice-Chair: Masoud Mahjouri-Samani (Auburn U.) *

Secretary: Tatiana Allen (U. Tennessee-Chattanooga) *

At-Large Members:

Ethan Self (ORNL); Jon Camden (Notre Dame); Wan-Yu Tsai (ORNL); Wonhee Ko (University of Tennessee) *; Ruocun (John) Wang (Drexel University) *; Vighter Iberi (Proctor and Gamble) *

Past Chair: Zachary Hood (ANL)

CNMS (non-members) – Lisa Goins, Brad Lokitz, Karren More, Bobby Sumpter

* Indicates newly elected

CNMS and ORNL operations update: (Brad)

- Spring round of proposals is open. Deadline: May 8th.
- The main goal is to get ready for the Review:
 - Review documents are due April 1 and mostly finalized.
 - Made short videos about key people at CNMS.
 - Upgrades within the building: dark navy-blue color as new lab accent color, upgrade trophy cases, CNMS logo above cases, new posters.
- Website update (to finalize by 04/01): updated, but still needs to be polished.
 - “Code of Conduct” document is written and under review, still needs to be put on the on the web site.

CNMS User Meeting Discussion/Update (Piran)

- Date: August 12-19.
- Place: Downtown Knoxville. Crowne Plaza is confirmed.
- Audio-visuals: no new discussion, see last meeting minutes
- Plenary speaker suggestions: Schedule another meeting in 2 weeks to finalize the speakers for the User Meeting, unless it is done by email before that date.

Plenary and Invited speaker suggestions:

- 2 speakers, one is on theory, one is an experimentalist.
- How general or narrow the topics should be?
- Possible topics/ consideration:
 - Experiment: 2D materials or Energy storage? CO2 capture /conversion related?
 - Interest can be estimated from the distribution of user proposals.
 - Theory: Quantum materials/ QIS or AI/ML . Topics on Quantum materials and QIS? Someone from CNMS to do Quantum 101 (Travis Humble?) chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://science.osti.gov/-/media/bes/pdf/reports/2016/BRN_Quantum_Materials_for-Energy_Relevant_Technology.pdf
 - A talk on AI ML on a realistic level. (there is a AI/ML institute at ORNL, <https://www.ornl.gov/staff-profile/prasanna-balaprakash>)
 - More general topics: space electronics (NASA), invite people from other nano-science facilities; high-profile speaker, to speak more broadly.

Workshop Suggestions

- Autonomous Experiments
- AI/ML approaches to incorporate theory-in-the-loop to achieve autonomous synthesis and manipulation”, P. Ganesh, Sumner Harris, Yongtao Liu ==== possibly merge with Autonomous Experiments
- Piezoresponse Force Microscopy
- topic: quantum materials working title: Heterogeneities in Quantum Materials
organizers: Tom Berlijn and/or anyone in the Heterogeneities in the Heterogeneities in Quantum Materials theme - focus on materials itself.
- single photon emission physics and measurement – Ben Lawrie - quantum measurements
- Zach Hood= workshop on user proposals writing (Mon and Thursday). 1st workshop is on Monday before the meeting. Talk on new capabilities that CNMS, and the structure of the user grants. Then participants can create an outline by Thursday and get feedback and come up with a good draft.

Other:

- Poster Slam (for students)
- Student awards: all best poster/presentation awards
- CNMS Staff Member Slam (9 groups to talk about their research, 3 mins max per group, 1 slide, picture of all the group members,) followed by the “speed dating”: let people move freely around the groups.

CNMS UEC DEIA+ subcommittee – not discussed

CNMS User Proposal Review subcommittee -- update will be at the next meeting.

Suggestion box (Brad)

- Update LinkedIn profile for CNMS.

New business/action items - Schedule a meeting for members participating in the review process to brief them before the meeting.

End time: 10:58 am EST