September 5, 2019

C10: The Structure and Dynamics of Condensed Matter

Activity Report for the 2019 IUPAP C&CC Meeting, October 1-3, 2019, London, UK

Submitted by Laura H Greene, Chair C-10)

C10: MEMBERS 2017-2020

Officers

Chair: Laura H. Greene (2011) (2014) (2017) - lhgreene@magnet.fsu.edu

Vice-Chair: Hartmut S. Leipner (2011) (2014) (2017) - hartmut.leipner@cmat.uni-halle.de

Secretary: Tae Won Noh (2014) (2017) - twnoh@snu.ac.kr

Members

Shuyun Zhou (2017) - syzhou@mail.tsinghua.edu.cn

Dominik Schaniel (2014) (2017) - Dominik.schaniel@univ-lorraine.fr

Vladimir Kulakovskii (2014) (2017) - kulakovs@issp.ac.ru

Li-Chyong Chen (2017) - chenlc@ntu.edu.tw

Youichi Murakami (2014) (2017) - youichi.murakami@kek.jp

Ulrike Diebold (2017) - ulrike.diebold@tuwien.ac.at

Maria Antonietta Ricci (2017) - mariaantonietta.ricci@uniroma3.it

Wilson A. Ortiz (2017) - wortiz@df.ufscar.br

Peter Svec B (2017) - fyzisvec@savba.sk

Graeme M Luke B (2017) - luke@mcmaster.ca

Umesh V WAGHMARE (2017) - waghmare@jncasr.ac.in; umeshkruti@gmail.com

Activity report:

The C 10 YSP 2019 award was awarded to Assistant Professor Ming Yi of Rice
University for her fundamental contributions in understanding electronic and magnetic
order and dynamics in quantum materials, including iron-based superconductors, at
the 2019 APS March Meeting in Boston. She also presented an Invited Talk. We
had 16 new qualifying nominations and 5 rollovers; all outstanding.



Ming Yi and Laura Greene at the March meeting in Boston

- 2. The C 10 YSP 2020 nominations closed on August 30. We have 15 new nominations and 13 rollovers. It will be awarded at the March Meeting in Denver.
- 3. Given the diversity of fields in C 10, the commission members have rarely been able to meet face to face. We will plan for a videocon in the next few months (Zoom).
- 4. We have not sponsored a meeting this past year. We are expecting several applications for next year, including MSM21 (Magnetic and Superconducting Materials 2021) which historically benefits emerging countries.
- 5. The US National Academies published *Frontiers of Materials Research: A Decadal Study* (https://www.nap.edu/catalog/25244/frontiers-of-materials-research-a-decadal-survey). Greene, the C10 Chair was a co-chair with Tom Lubensky and Matthew Tirrell.
- 6. Repeating (yet again) from the last report, the C10 Commission will discuss a name change. From "Structure and Dynamics of Condensed Matter Physics" to "Quantum Materials." which is closer to what the Commission actually does. Note there are five Commissions that encompass condensed matter physics:
 - C 5: Low Temperature
 - C6: Biological
 - C 8: Semiconductors
 - C 9: Magnetism
 - C 10: Structure and Dynamics of Condensed Matter

We believe such a name change will more accurately reflect C 10 and will not impinge on the other condensed matter commissions. We will keep Council and other Commissions abreast of our discussions and progress.