

## Report of the C20 Commission on Computational Physics

### Commission members

Chair	David P. Landau	United States
Vice-Chair	Mei-Yin Chou	China (Taipei)
Secretary	Lev Shchur	Russian Federation
Member	Richard Liska	Czech Republic
Member	Xiaoqun Wang	China (Beijing)
Member	Priya Mahadevan	India
Member	Regina Maphanga	South Africa
Member	Georg Kresse	Austria
Member	Andrew Horsfield	United Kingdom
Member	Maria-Roser Valenti	Germany
Member	Laurette Tuckerman	France
Member	Suklyun Hong	Korea
Member	Daniel Vizman	Romania
Member	Yuan Ping Feng	Singapore

### Associate Member Nominations

Hai-Qing Lin	China
Joan Adler	Israel
Bismarck Costa	Brazil
Travis Humble	U.S.A.

### XXXI IUPAP International Conference on Computational Physics CCP2019

The XXX IUPAP International Conference on Computational Physics CCP2019 was held on the campus of the Chinese University of Hong Kong from July 29 – August 1, 2019. The Conference Chair for CCP2019 was Prof. Jun-yi Zhu from the Chinese University of Hong Kong, and the Vice Chair was Prof. Rui-Qin Zhang from the City University of Hong Kong. The meeting was extremely well organized, including the rescheduling of the 3rd afternoon's sessions on the 4<sup>th</sup> day due to the closure of the conference site because of a typhoon that struck Hong Kong. The full program is still available on the Conference website: <http://www.phy.cuhk.edu.hk/events/CCP2019/index.html>: The purpose of this annual conference series is to bring together computational scientists working in diverse sub-fields of physics and closely related areas to exchange the latest developments in computational techniques and their applications. CCP2019 featured plenary and invited speakers who were diverse from the perspective of disciplinary sub-area, geography and gender. Presentations varied from quantum mechanical studies of small molecules to simulations/visualizations of black holes. In addition, contributed talks as well as posters in a wide number of subject areas of active interest to the computational physics community were presented.

A C20 Commission meeting also took place during CCP2019. At the C20 Commission lunch meeting Dr. Martin Weigel, Chair of CCP2020, provided an update on planning for CCP2020 in Coventry, UK to be held Aug.2-6, 2020. Prof. Renata Wentzcovitch, proposed Chair of CCP2021, made a very nice Powerpoint presentation about the proposal to hold CCP2021 in Austin, TX U.S.A. There was extensive discussion

and a number of suggestions were made for Renata and her team to consider. The proposal was unanimously approved. There was also discussion about possible locations for CCP2022. Prof. Suklyun Hong made a detailed, informal Powerpoint presentation about Seoul, Korea as a possible site. Suklyun was encouraged to submit a formal proposal, and other formal proposals would be welcomed as well. Proposals should be submitted by next May so that there is time to distribute them to all C20 Commission members and obtain feedback. Presentations and a vote will be taken at the C20 Commission meeting at CCP2020.

### **2019 Young Scientist Prize in Computational Physics**

The 2019 Young Scientist Prize in Computational Physics was awarded at the CCP2019 Conference to Dr. Jesús Carrete. The citation read: *For original contributions and development of pioneering computational methods in the emerging field of ab-initio thermal transport, enabling the parameter-free prediction of thermal conduction properties of solid materials, and opening these novel methods to the broader scientific community through open source codes.* Dr. Carrete received his Ph.D. from the Universidade de Santiago de Compostela and is currently a Senior Scientist at the Technical University of Vienna.

### **Future IUPAP International Conference on Computational Physics**

The XXXII IUPAP International Conference on Computational Physics CCP2020 will be held at the University of Coventry, UK Aug. 2-6, 2020. The XXXIII IUPAP International Conference on Computational Physics CCP2021 will be held in Austin, TX. The conference will take place between June and August, but the exact date has not yet been determined.

Respectfully submitted,  
David P. Landau  
Chair, C20 Commission  
September 13, 2018