

Report of the C3 Commission (Statistical Physics) to the IUPAP submitted on 1 June 2019

We have mentioned in our last report (October 2018) that the C3 Commission for Statistical Physics is responsible for running the IUPAP StatPhys Conference, which has been held 26 times so far; the last such meeting, StatPhys 26, was held in Lyon, France; the next one, StatPhys 27, is scheduled from 8-12 July 2019 in Buenos Aires.

During such StatPhys conferences the C3 Commission meets, the Boltzmann Medal is awarded to outstanding Statistical Physicists (chosen by votes of the members of the C3 Commission, the former Chair of the C3 Commission, the Chair of the Organizing Committee for the STATPHYS Conference, and previous Boltzmann Medalists). In addition, in the last four meetings, Young Scientist Prizes have been awarded to highly promising young Statistical Physicists.

On behalf of the C3 Commission of the IUPAP, it is our great pleasure to mention that Professor Dr. Herbert Spohn, Technical University Munich, Germany has been chosen for the award of the Boltzmann Medal 2019, for his wide-ranging and highly influential work in non-equilibrium statistical physics. [<https://statphys27.df.uba.ar/boltzmann.html>]

Furthermore, we are pleased to state that the following scientists have been chosen to receive the Young Scientist Prizes in Statistical Physics:

Dr. Manlio De Domenico, Fondazione Bruno Kessler, Italy (for his very important contributions to the modeling of complex systems based on statistical physics and nonlinear dynamics, in particular, the development of the physics of multilayer networks and a quantum-inspired statistical mechanics of networks);

Dr. Lucile Savary, Ecole Normale Supérieure de Lyon, France (for her pioneering contributions to our understanding of complex quantum states of matter with particular reference to quantum spin liquids);

Dr. Alexandre Solon, Sorbonne Université, LPTMC, CNRS, France (for his outstanding theoretical contributions to the development of non-equilibrium statistical physics and the field of active matter).

[<https://statphys27.df.uba.ar/scientist.html>]

Meanwhile, the preparations for StatPhys 27 are moving apace. In consultation with the members of the Steering Committee and with inputs from the International Advisory Committee, Professor Silvina Ponce Dawson and her colleagues on the Local and National Organising Committees have put together a very good programme of lectures. The list of plenary and invited speakers is available at [<https://statphys27.df.uba.ar/speakers.html>].

All members of the statistical-physics community are looking forward to an exciting StatPhys 27 meeting and also to the large number of Satellite Meetings that are being held just before or soon after StatPhys27. A list of these Satellite Meetings is available at [<https://statphys27.df.uba.ar/satellites.html>].

The IUPAP had asked us to produce a one-page document succinctly illustrating the mission of the C3 Commission, its achievements, and future plans so as to produce flyers to be distributed to participants in IUPAP-sponsored conferences. We have prepared such a flyer for the C3 Commission.

We are now making preparations for the meeting of the C3 Commission, which will take place at StatPhys 27. We have made special efforts to encourage statistical physicists in different countries to bid to host the next StatPhys Conference. During the meeting of the C3 Commission, we propose to discuss various important issues including proposals for the next StatPhys Conference and nominations for new members of the C3 Commission.

Rahul Pandit, Chair, C3 Commission (Statistical Physics) of the IUPAP

Maxi San Miguel, Vice Chair, C3 Commission (Statistical Physics) of the IUPAP

Lucilla de Arcangelis, Secretary, C3 Commission (Statistical Physics) of the IUPAP