

COST Action MP1209 “Thermodynamics in the Quantum Regime” Newsletter

Thursday 13th October 2016

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Forthcoming Events in Year 4

COSTMP1209 – 5th Quantum Thermodynamics Conference

13-17 March 2017, Oxford, UK. <https://qtd5.sciencesconf.org/>

Now accepting submissions for talks and posters

Invited Speakers

- Ann Sanpera
- Nicole Yunger-Halpern
- Joan Vaccaro
- Roberta Zambrini
- Shuoming An
- Hal Tasaki
- Mihai Vidrighin
- Fred Jendrzejewski
- Bernard Rauer
- Renato Renner
- Takahiro Sagawa

Tutorials

- Christian Gogolin
- Johan Aberg
- Nir Bar-Gill

This event is organized by Felix Binder, Fabio Anza, Cormac Browne (University of

Oxford) and Luis Correa, Pietro Liuzzo-Scorpo and Gerardo Adesso (University of Nottingham).

COST funding will be available for a limited number of participants. Please state with your submission if you would like to be considered for COST funding. COST reimbursement invites will be sent out from January onwards.

The conference poster is attached if you wish to print out to advertise the conference to interested colleagues and departments.

COSTMP1209 – 8th Working Group Meeting

6-9 December 2016, Smolenice, Slovakia.

<http://quantum.physics.sk/conf/mathermo2016/> **Registration now open**

It is with great delight that we announce that A Focus Meeting ‘Mathematical Foundations of Quantum Thermodynamics’ will be taking place as detailed above.

This event is being organized by Marcus Huber, Daniel Reitzner, Tomáš Rybár, Martina Zemanová and Mário Ziman.

We hope that COST MP1209 funding will be available for a number of participants. Please state in the ‘special requirements’ box upon registration if you would like to be considered for COST funding.

2nd Quantum Thermodynamics Training School

COSTMP1209 – The 2nd Quantum Thermodynamics Training School
‘Thermodynamics and non-equilibrium phenomena at Quantum interfaces of light and matter’ was held recently in Cambridge

<http://ee.princeton.edu/research/tureci/summer-school>

The School was organised by Mete Atature, Hakan Türeci & Pamela Smith and was a huge success with over 60 participants attending. The School hosted a diverse group of Trainers who gave very interesting and engaging presentations on a wide range of topics. The discussions during the lectures, short talks and poster sessions were lively and hopefully the amount of mutual information has increased amongst the participants.

We thank Mete, Hakan and Pam for all their hard work, under difficult circumstances, in arranging this inspiring Training School.

STSM Update

The next STSM call opens on the **1st November** and applications must be received by **15th November**. STSM applications are a competitive process so, if you are considering applying, please give yourself the best chance of success by ensuring your project description is as strong as possible.

Further details of this and future calls can be found on the website

<http://blogs.exeter.ac.uk/qut/>

Quantum Technologies Flagship

Following the support of more than 3000 representatives from academia, industry and governmental and funding institutions, the Quantum Manifesto has now been [published](#). Since its publication, a working group has been set up to propose a Strategic Research Agenda with clear goals, as well as an efficient approach to the implementation and governance of the Quantum Technologies (QT) Flagship program consisting of €1 billion over 10 years for quantum research.

A European wide workshop will take place on November 10th in Berlin (venue to be determined) to discuss the above program with the wider community from academia and industry. If you wish to attend please contact [Sandra Howsley](#). Your opinion can also be submitted via an online [Google poll](#) before October 25th 2016.

Network Members

30 individual researchers have joined the network.

Administrative Information

Please can you check your member details on the COST MP1209 website (<http://blogs.exeter.ac.uk/qut/members/>) and if you haven't already done so, please send any amendments to [Sandra Howsley](#). In addition, please send a picture of yourself to add to your profile on our website-this should be 250 pixels wide by 200 pixels high.

It would be great to have some more pictures included on the website. So if any member has any photos from previous conferences that they are happy for us to include or any items for inclusion in the next newsletter, please forward them to [Sandra Howsley](#).

COST Acknowledged Publications

The following COST acknowledged publications have been notified to us since the last newsletter. Please send details of any new COST acknowledged publications to costmp1209@gmail.com.

1. Mohammad Mehboudi, Maria Moreno-Cardoner, Gabriele De Chiara, Anna Sanpera
Thermometry Precision in Strongly Correlated Ultracold Lattice Gases
New J. Phys. 17, 055020 (2015)
2. Simon Pigeon, Lorenzo Fusco, André Xuereb, Gabriele De Chiara, Mauro Paternostro. Thermodynamics of trajectories and local fluctuation theorems for harmonic quantum networks
New J. Phys. 18 013009 (2016)
3. Simon Pigeon, André Xuereb. Thermodynamics of trajectories of open quantum systems, step by step
J. Stat. Mech. 063203 (2016)
4. A. A. Cifuentes, F. Nicacio, M. Paternostro, F. L. Semião Non-equilibrium properties of trapped ions under sudden application of a laser
Phys. Rev. A 94, 013406 (2016)
5. Felipe Barra and Massimiliano Esposito. Dissipation in small systems: A Landau-Zener approach", Phys. Rev. E 93, 062118 (2016)