

COST Action MP1209 “Thermodynamics in the Quantum Regime” Newsletter

Thursday 26th January 2017

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Quantum Thermodynamics Conference (QTD5)

COSTMP1209 – 5th Quantum Thermodynamics Conference (QTD5)

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

Registration now OPEN (deadline 30th January 2017)

Invited Speakers

- Anna Sanpera
- Bernard Rauer
- Fred Jendrzejewski
- Joan Vaccaro
- Kavan Modi
- Mihai Vidrighin
- Nicole Yunger-Halpern
- Renato Renner
- Roberta Zambrini
- Shuoming An
- 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 reimbursement will be available for a limited number of participants and funding invites will be sent out to successful participants from early February onwards.

COST MP1209-8th Working Group Meeting

6-9 December 2016, Smolenice, Slovakia.

<http://quantum.physics.sk/conf/mathermo2016/>

The 8th Working Group meeting was organised by Marcus Huber, Daniel Reitzner, Tomáš Rybár, Martina Zemanová and Mário Ziman and was a very nice meeting focussing on mathematical aspects of quantum thermodynamics. The meeting was attended by more than 30 researchers and was very productive, with many presentations and discussions e.g. on work fluctuations and thermal machines.

We would like to thank Marcus Huber, Daniel Reitzner, Tomáš Rybár, Martina Zemanová and Mário Ziman for all their hard work in making the meeting so successful.

Future Quantum Thermodynamics Conferences (QTD)

A very big thank you for taking the time to fill out the recent google poll (or emailing us) on the future of the research community/quantum thermodynamics conferences after the COST network MP1209 finishes in April 2017.

The strong response was very encouraging and we are happy to announce that Quantum Thermodynamics conferences are being organized by Gabriele de Chiara and his team in 2018, by Jukka Pekola and his team in 2019 and by Toni Acin and his team in 2020. Please see below for details:

Summary of upcoming QTD Conferences:

- a) **2018** Quantum Thermodynamics conference: Kavli Institute for Theoretical Physics, University of California, Santa Barbara, USA, 25-29 June 2018.
Organised by Gabriele De Chiara, Andrew Jordan, Janet Anders and Ronnie Kosloff. <https://www.kitp.ucsb.edu/activities/qthermo18>

b) **2019** QTD(7): Finland. *Organised by Jukka Pekola and his team.*

c) **2020** QTD(8): Barcelona, Spain. *Organised by Toni Acin and his team.*

STSM Update

The final STSM Call of the COST MP1209 Action is **now OPEN** and applications must be received by **7th February**. The budget for this final Call is very limited, so if you are considering applying please ensure your application is as strong as possible and please be sensitive to the limited budget when calculating your travel and sustenance budget.

Further details on how to apply can be found on the Actions website at <http://blogs.exeter.ac.uk/qut/stsms-2/>

Network Members

11 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](#).

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. G. Benenti, G. Casati, K. Saito, R.S. Whitney. Fundamental aspects of steady-state conversion of heat to work at the nanoscale. <https://arxiv.org/abs/1608.05595>., (2016)
2. R. Schmidt, S. Maniscalco, T. Ala-Nissila, Heat flux and information backflow in cold condensed matter systems, *Phys. Rev. A*, **94**, 010101 (2016)
3. Ali Ü. C. Hardal, Özgür E. Müstecaplıoğlu. Renyi divergences, Bures geometry and quantum statistical thermodynamics. *Entropy*, **18**, 455 (2016)