

COST Action MP1209 "Thermodynamics in the Quantum Regime" Newsletter
Friday 24th October 2014

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Forthcoming Events

COST MP1209 Training School - "Physics of Small Quantum Systems: Thermal and Topological Phenomena" is being organized by Tero Heikkilä and will be held from 12-16 January 2015 in Gustavelund, Tuusula, Finland. The meeting website is <https://www.jyu.fi/fysiikka/en/qutschool2015> and registration is open. There are only 2 or 3 COST supported places left on this School.

It is intended to be a graduate training school for physicists working on topological properties, and nonequilibrium and thermodynamic phenomena in small condensed-matter systems. Topics will include: Quantum thermodynamics, (circuit) optomechanics, topological superconductors, thermal effects in ultracold atom systems, and fast (radio frequency) measurements, including connections between these topics.

Workshop on Quantum Information and Thermodynamics

23-27 February 2015, Sao Paulo, Brazil

<http://wqit-quantum.if.ufg.br/>

COSTMP1209 – Second Quantum Thermodynamics Conference

19-24 April 2015, Palma de Mallorca, Spain

The meeting website & registration will be available soon.

Workshop on Thermodynamics and Nonlinear Dynamics in the Information Age

13-17 July 2015, Telluride, USA

<https://www.telluridescience.org/meetings/workshop-details?wid=548>

COSTMP1209 – Third Quantum Thermodynamics Conference "Quantum Thermodynamics, Quantum Information"

11-16 October 2015, Porquerolles, France

Do you want to get involved?

The COSTMP1209 network benefits from the engagement of individuals. In addition to Chair, Vice-Chair and WG Leaders we currently have the following roles in the network:

- Early Stage Researchers Representatives

- Equalities Representatives
- Webmasters
- STSM Coordinators
- Dissemination / Outreach Coordinators

If you are interested in getting involved and would like to know more about these roles then please contact Janet or Marion for more information.

STSM Update

STSM call 6 was very competitive, attracting 7 applications for a budget of €3750. This was the first call where the applications exceeded the available budget and 3 applications have been granted.

Details of future calls can be found on the website - <http://qut.ethz.ch/index.php/stsm>.

New Network Members

20 individual researchers have joined the network.

Wikipedia

We are brainstorming on how to deliver our Action objective of outreach & dissemination to the scientific community, industry and general public. One avenue of spreading information about the field of quantum thermodynamics is to compile a Quantum Thermodynamics Wikipedia page. Please let James Millen (j.millen@ucl.ac.uk) know if you are interested in contributing to avoid multiple entries.

Administrative Information

Please send any items for inclusion in the next newsletter to me - costmp1209@gmail.com.

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. Altintas, F., Hardal, A.Ü.C., Müstecaplıođ, Ö.E.
"Quantum correlated heat engine with spin squeezing"
Physical Review E 90 (3), 032102 (2014)
2. Uzdin, R., Kosloff, R.
"The multilevel four-stroke swap engine and its environment"
New Journal of Physics 16, 095003 (2014)
3. Battista, F., Haupt, R., Splettstoesser, J.
"Energy and power fluctuations in ac-driven coherent conductors"
Phys. Rev. B 90, 085418 (2014)

4. Spilla, S., Hassler, F., Splettstoesser, J.
“Measurement and dephasing of a flux qubit due to heat currents”
New J. Phys.16, 045020 (2014).
5. Haupt, F., Leijnse, M., Calvo, H.L., Classen, L., Splettstoesser, J., Wegewijs, M.R.
“Heat, molecular vibrations, and adiabatic driving in non-equilibrium transport
through interacting quantum dots”
physica status solidi (b), DOI:10.1002/pssb.201349219 (Review article for the
special issue“Quantum transport at the molecular scale”).
6. Juergens, S., Haupt, F., Moskalets, M., Splettstoesser, J.
“Thermoelectric performance of a driven double quantum-dot”
Phys. Rev. B 87, 245423 (2013)

Kind regards,

Marion