

COST Action MP1209 “Thermodynamics in the Quantum Regime” Newsletter Friday 16th January 2015

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Winter Training School

The [Winter school in thermodynamics of small quantum systems](#) has been held this week in the snowy Tuusula, Finland. This has been organized by Tero Heikkilä of the University of Jyväskylä. Tero writes “Besides the almost 100 K range of temperatures (between the -16 degrees Celsius outside on Monday to the over 80 degrees in the sauna) experienced by the 60+ participants of the school, they have been exposed to a number of fascinating physics phenomena, ranging from quantum thermodynamics to thermoelectric effects in cold atom systems, optomechanics, fast measurements, and topological superconductivity. The discussion during the lectures, short talks, exercise and poster sessions has been lively and hopefully the amount of mutual information has increased among the participants. As we have learned in the lectures on thermodynamics, it is possible that this mutual information can be used for some useful work in the future.”

We thank Tero and the organizing team of Francesco Massel, Teemu Ojanen, Jukka Pekola, Mika Sillanpää and Tapio Ala-Nissilä for all their hard work in arranging this inspiring Training School, which is the first one organised by the COSTMP1209 Action.

Forthcoming Events

COSTMP1209 – The Second Quantum Thermodynamics Conference is being organised by Roberta Zambrini and will be held from 19-24 April 2015 in Palma de Mallorca, Spain, hosted by the Institute of Cross-Disciplinary Physics and Complex Systems [IFISC](#), a joint research Institute of the University of Balearic Islands [UIB](#) and the Spanish National Research Council [CSIC](#).

The meeting website is - <http://ifisc.uib-csic.es/qtd2/>

The 2nd Quantum Thermodynamics Conference is meant to be a reference for researchers working in thermodynamics in the quantum regime, in connection with quantum information theory and statistical physics. Two keynote (Martin Plenio and Peter Talkner), several invited and contributed talks as well as a poster section are scheduled, promoting young scientists. The conference also includes discussion time and Working Group meetings.

Workshop on Quantum Information and Thermodynamics

23-27 February 2015, Sao Paulo, Brazil

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

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

The meeting website will be available soon.

STSM Call 7 - Update

4 STSMs have been awarded with a total value of €3315 as a result of Call 7.

The final STSM Call for this budget period will open on March 1st -

<http://qut.ethz.ch/stsm>.

Opportunity to Host an Event

The deadline to apply to host an event for the network is next week – 5pm January 21st. Please see the attached document for details.

Job Vacancies

Open **PhD position** in quantum thermodynamics theory at the University of Exeter, with Dr Janet Anders.

Full funding for UK students.

Application deadline is 13th February 2015.

<http://www.exeter.ac.uk/studying/funding/award/?id=1729>

New Members

6 new members have joined the network since the last newsletter.

Administrative Information

Please send any items for inclusion in the next newsletter to me -

costmp1209@gmail.com.

Kind regards,

Marion