



QOpen

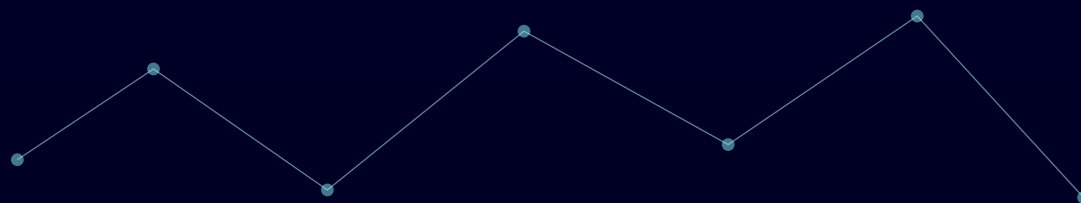
Many-body Open Quantum Systems

QOpen Newsletter

Many-Body Open Quantum Systems

Issue 0

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<https://qopen.eu> | COST Action CA24109



Welcome to the pilot issue of the QOpen newsletter for COST Action CA24109 – Many-Body Open Quantum Systems. Each issue will bring together news from across the network, including recent events and research outputs, upcoming meetings and funding opportunities, and updates on regular community activities. We hope it will help members stay connected, discover ways to participate and share the work of the Action.

What has happened so far?

EVENTS

QOpen Kick-off Workshop

When April 27 – May 1, 2026

Where Técnico Innovation Center, Lisbon, Portugal

Link [QOpen Kick-off Workshop](#)

The QOpen Kick-off Workshop marked the formal launch of COST Action CA24109 and the start of its four-year collaborative program. Researchers from across the network met for invited talks, poster sessions and Working Group discussions, alongside the first meeting of the Management Committee. The program introduced the Action's scientific vision and opened discussions on priorities for the first grant period, coordination mechanisms, Short-Term Scientific Missions, training schools, future workshops, inclusiveness, industry engagement and communication. The meeting established the scientific and organizational foundations for collaboration across QOpen's Working Groups.

EVENTS

International School on Quantum Landscapes: Non-Equilibrium, Circuits, and Complexity (qlands2026)

When May 17 – June 6, 2026

Where CYU Advanced Studies Institute, France

Organizers Pedro Ribeiro (University of Lisbon), Andrea De Luca (ENS Paris), Jacopo De Nardis (CYU) and Katja Klobas (University of Birmingham)

Link [qlands2026](#)

The three-week qlands2026 thematic school brought together leading experts and young researchers for an immersive program on non-equilibrium quantum many-body physics. Lectures and tutorials covered open quantum systems, decoherence and non-equilibrium steady states; tensor networks; quantum circuits and quantum computing; machine-learning approaches; hydrodynamics; and connections between random matrices, quantum chaos and random tensor networks. Informal discussions and scientific exchange connected ideas from quantum information, condensed-matter theory and computational physics. The school was supported by COST Action CA24109 alongside European and local partners.

EVENTS

International Summer School on Driven-Dissipative Many-Body Systems

When June 22 – 26, 2026

Where OCaleDo Building, TU Dortmund University, Germany

Organizers Tobias Donner (ETH Zurich) and Oded Zilberberg (University of Konstanz)

Link zilberberg.uni-konstanz.de

The International Summer School on Driven-Dissipative Many-Body Systems brought together an international cohort of about 50 master's and doctoral students and early-career postdoctoral researchers for a comprehensive program covering the frontiers of open quantum systems, cold-atomic platforms, topology, Floquet engineering, and quantum fluids of light. Over five days, 10 scientific experts delivered lecture modules alongside dedicated lab tours at TU Dortmund and an exceptionally interactive, extended student poster session. Beyond the core physics curriculum, the school featured specialized workshops on research data management and FAIR data principles, as well as on mitigating gender bias and addressing structural inequalities in academic career paths. Strongly aligning with the COST Excellence and Inclusiveness Policy, women accounted for 25% of participants and the event drew a highly diverse participant cohort spanning 15 countries, including prominent representation from several COST Inclusiveness Target Countries (such as Portugal, Poland, Hungary, Slovenia, Croatia, and Serbia).

OPPORTUNITIES

Calls

QOpen STSM Call – Grant Period 1

Deadline • Closed – March 31, 2026

During its first grant period, QOpen invited applications for Short-Term Scientific Missions supporting research visits between institutions in COST-eligible countries. The call aimed to foster collaboration, knowledge exchange and scientific progress aligned with the objectives of the Action. Budgets of up to EUR 1,000 were prioritized, while grants of up to EUR 2,000 could be awarded in exceptional cases, subject to budget availability and COST rules. Young Researchers and Innovators and applicants from Inclusiveness Target Countries were particularly encouraged to apply.

<https://qopen.eu/calls/qopen-stsm-call-grant-period-1/>

OUTPUTS

Publications

2026 Phys. Rev. B 113, 195439

Stability of the quantum coherent superradiant states in relation to exciton-phonon interactions and the fundamental soliton in hybrid perovskites

A. A. Gladkij, N. A. Veretenov, N. N. Rosanov, B. A. Malomed, V. Al. Osipov and B. D. Fainberg

<https://doi.org/10.1103/s5h7-rpmk>

What comes next?

EVENTS

Open Quantum Matter: Characterization and Control

When October 6 – 9, 2026

Where OsloMet, Oslo, Norway

Link [OsloMet](#)

This four-day meeting will bring together researchers from Working Groups 2 and 3 to examine the interface between dissipative quantum matter and the characterization and control of open quantum platforms. Topics include non-equilibrium phases, driven and monitored quantum systems, dissipative stabilization, noisy quantum devices, and strategies for using dissipation as a resource. The meeting is intended to identify common challenges, benchmark problems, and opportunities for follow-up collaborations.

EVENTS

MEOQS2026: Methods for Many-Body Open Quantum Systems

When November 2 – 7, 2026

Where Ettore Majorana Centre, Erice, Italy

Organizers Alberto Biella (CNR-INO & University of Trento) and Cristiano Ciuti (Université Paris Cité)

Link [MEOQS2026](#)

MEOQS2026 will bring together theorists working on numerical and analytical methods for many-body open quantum systems. The meeting follows earlier editions in Vienna, Madrid, Garching, Dundee, and Trento, and is co-organized by the DFG FOR5688 consortium.

OPPORTUNITIES

Calls

QOpen 2027 Event Proposals

Deadline • 5 September 2026

The QOpen 2027 Event Proposal Form is now available for Action members wishing to propose events to be organized in 2027. Proposed activities may include focused workshops, training schools, conferences, young-researcher-led workshops or schools, or other formats that support the scientific objectives of the Action. Events may be face-to-face, hybrid, or online, and should clearly indicate their relevance to one or more QOpen Working Groups.

Activities involving Young Researchers and Innovators are particularly welcome, especially where they create opportunities for young researchers to take an active role as organizers, speakers, lecturers, or participants. Proposals that support geographical diversity, participation from Inclusiveness Target Countries, gender balance, and sustainable event planning are also encouraged.

<https://qopen.eu/calls/call-for-qopen-2027-event-proposals/>

Regular Activities

JOURNAL CLUB: LINDBLAD MANY-BODY SYSTEMS

The journal club is held online on Monday mornings (Central European time), with two or three sessions each month. The organizer is Masudul Haque (TU Dresden). To subscribe to the mailing list, please contact [the organizer](#).

Past sessions

1. **13/04/26** — Yumin Hu (MPI-PKS Dresden). *Rise and Fall, and Slow Rise Again, of Operator Entanglement under Dephasing*. [link](#).
2. **20/04/26** — Tista Banerjee (ICTS Bangalore). *Orthogonality Catastrophe in Dissipative Quantum Many-Body Systems*. [link](#).
3. **04/05/26** — Gabriel Almeida (Tecnico Lisbon). *Algebraic theory of quantum synchronization and limit cycles under dissipation*. [link](#).
4. **11/05/26** — Gabriel Almeida (Tecnico Lisbon). *Continuation of same paper*. [link](#).
5. **18/05/26** — Catalin Halati (MPI-PKS Dresden). *PT phase transition in open quantum systems with Lindblad dynamics*. [link](#).
6. **25/05/26** — Somsuvra Gupta (IISc Bangalore). *Boundary Time Crystals*. [link](#).
7. **08/06/26** — Tim Pokart (TU Dresden). *Symmetries and conserved quantities in Lindblad master equations*. [link](#).
8. **15/06/26** — Shovan Dutta (RRI Bangalore). *Tutorial on “third quantization”*. [link 1](#); [link 2](#).
9. **29/06/26** — Urban Duh (Ljubljana). *A note on symmetry reductions of the Lindblad equation: transport in constrained open spin chains*. [link](#).
10. **06/07/26** — Ashlin Thomas (Niser Bhubaneswar). *Is there a Floquet Lindbladian?*. [link 1](#); [link 2](#).
11. **13/07/26** — Simon Balthasar Jäger (University of Bonn). *Exact Solutions of Interacting Dissipative Systems via Weak Symmetries*. [link](#).
12. **20/07/26** — Zhi-Feng Zhang (MPI-PKS Dresden). *Spontaneous symmetry breaking in open quantum systems: Strong, weak, and strong-to-weak*. [link](#).
13. **27/07/26** — Priesch Roy (IISc Bangalore). *Tailoring Quantum Chaos With Continuous Quantum Measurements*. [link](#).

Next sessions

1. **03/08/26** — Nathan Keenan (IFISC Majorca, Spain). *Lieb-Schultz-Mattis Theorem in Open Quantum Systems*. [link](#).
2. **10/08/26** — Nico Albert (TU Dresden). *Liouvillian Skin Effect: Slowing Down of Relaxation Processes without Gap Closing*. [link](#).
3. **17/08/26** — Yaoqi Ye (USTC Hefei). *Universal Spectra of Random Lindblad Operators*. [link](#).
4. **24/08/26** — James Walking (MPI-PKS Dresden). *TBA. Link TBA*.
5. **31/08/26** — Leonhard Moske (University of Bonn). *Relaxation times of dissipative many-body quantum systems*. [link](#).
6. **07/09/26** — Konrad Mickiewicz (TU Dresden). *Global Becomes Local: Efficient Many-Body Dynamics for Global Master Equations*. [link](#).

JOURNAL CLUB: PROCESS TENSOR

This online journal club meets on the first Monday afternoon (Central European time) of each month. The journal club is organized by Brendon Lovett (University of St Andrews). To subscribe to the mailing list, please contact [the organizer](#).

Past sessions

1. **01/06/26** — Hari Kumar Yadalam (King's College London). [link](#).
2. **29/06/26** — Kian Damezin (Heriot-Watt University). [link](#).

Next sessions

1. **03/08/26** — Peter Kirton (University of Strathclyde). *Belief propagation and tensor networks*. [link](#).

Next newsletter

The next issue is planned for **September 2026**. If you have an item for the newsletter, please [contact us](#).

Editors

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