

Exploring the role of quantum science & technology in addressing **energy challenges**.

Join the 2nd edition of ICQE, a conference that explores the role of quantum science and technology in addressing urgent energy challenges, from material development for net-zero transition to the surging energy consumption of information technology.

The conference bridges the gap between disciplines and sectors, bringing together experts from **physics, chemistry, engineering, material science, computer science, biology**, and more, alongside **industry leaders** and **policymakers**.

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Register now at www.icqe.com.au

Keynote Speakers

Giulio Cerullo | Politecnico di Milano (IT)
Christiane Koch | Freien Universität Berlin (DE)
Sabrina Maniscalco | Algorithmiq, University of Turku (FIN)
Ferdinand Schmidt-Kaler | NEQXT, Universität Mainz (DE)

Invited Speakers

Jonatan Bohr Brask | Technical University of Denmark (DK)
Alex W Chin | Sorbonne Université, CNRS (FR)
Elisabetta Collini | University of Padova (IT)
Olivier Ezratty | EPITA and QEI cofounder (FR)
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Conference Themes and Topics

Theme 1.

Energy advantage and cost of quantum technology.

quantum thermodynamics
quantum reversible operations
thermodynamic role of coherence
quantum optimization ...

Theme 2.

Quantum effects in energy processes and materials.

superradiance & superabsorption
polaritonic chemistry energy storage
charge and exciton transport
optimal thermometry
topological materials ...

Theme 3.

Advanced numerical and experimental methods.

neural network states
tensor networks advanced DFT
molecular dynamics
NV-magnetometry
ultrafast spectroscopy ...

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