

Journées On Board to Synergy : édition 2025

2 and 3 September 2025,

CNRS, Campus Gérard Mégie, 3 rue Michel Ange, 75016 Paris

DAY 1: Tuesday 2 September, 10.00-18.00, CNRS Amphitheatre

10:00 Welcoming participants (45')

10:45 Opening address by the Programme Directors (15')

11:00 Start of presentations. 8' *per project*: 5' *presentation of the project leader (3 slides max)*
+ 3' *PhD or postdoc presentation (2 slides max)*

Session Quantum Computing hardware-software (Axe 1-Axe 3)

11:00	Presquile	Si-Qubits technology de-risking for large scale integration
11:10	MIRACLE Q	Microwave Resonators And Carbon nanotubes for aLternativE Qubit technology
11:20	MOLQIF	Spin manipulation in Molecules for Quantum Information
11:30	QARES	Quantum Algorithms to Reveal Electronic Structure
11:40	RobustSuperQ	Robust superconducting and hybrid quantum bits
11:50	QUANTIN	Epitaxial QUANTum maTERials INterfaces for solid- state qubits architectures
12:00	NISQ2LSQ	From NISQ to LSQ: Bosonic and LDPC codes
12:10	OQULUS	Light-based quantum processors in discrete and continuous variables
12:20	eQubitFly	Electronic Flying Qubits
12:30	EPIQ	Study of the quantum stack: Algorithm, models, and simulation for quantum computing

12:40 Lunch, poster session dedicated to all the projects (80')

14:00 Resuming presentations

Session Quantum Simulation and sensing - atoms (Axe 2)

14:00	aQCess	Atomic quantum computing as a service
14:10	Dyn1D	Out-of equilibrium one-dimensional quantum gases
14:20	QUTISYM	Quantum Transport In Artificial Materials
14:30	QbitAF	Cold Atom Qubits for Quantum Simulation and Computing
14:40	Qafca	Cold atom quantum sensors: gravity field measurement at all scales
14:50	CARAMELS	Cold and wArm Rydberg AtoM based ELectromagnetic field Sensors

15:15 Coffee break / poster session of all the projects (45')

16:00 Resuming presentations

Session Quantum Sensing

16:00	e-DIAMANT	Engineering Diamond Sensors for Advancing Science and Industry
16:10	QuMOMI	Quantum Microwave-Optics Mechanical Interface

Session Quantum Communication and security (Axe 3-Axe4)

16:20	QCommTestbed	Quantum communication testbeds
16:30	Qmemo	Functional optical memories for long-distance quantum communications
16:40	DIQKD	Device-Independent Quantum Key Distribution
16:50	PQ-TLS	Post-Quantum padlock for web browser

- 17:15 Wrap-up of project presentations and focus on issues for Day 2 (15')
- 17:30 Cocktails and networking sessions for young researchers and poster sessions
- 20:30 Day 1 closes

DAY 2: Wednesday 3 September, 9.00-17.00, Amphitheatre & rooms

- 9:00 Welcome coffee
- 9:30 Introduction: presentation of a working document prepared by the Programme Department, outlining the issues at stake and the avenues to be explored.
- 9:45 Introduction: for each working group, presentation of the subject, the expertise sought and the general approach to leading the groups. *Pre-registration is possible via Sciencesconf in advance of the event, and it is possible to join an existing group on the day.*
- 10:00 Working groups – 3 to 4 groups, depending on attendance, with 1 person per group in charge of the presentation and 1 person in charge of time management. Notes will be taken collectively. Each group will designate a facilitator for a joint presentation in plenary session.
- 12:00 Lunch break / breathing time
- 13:30 Final observations and report back by the working group
- 15:00 Coffee break / compilation by WG coordinators
- 15:30 Cross-referencing and combining the conclusions of each working group
- 16:00 Open discussion on the information presented
- 16:50 Closing remarks: thanks and future presentation of the conclusions presented, future joint events, etc.
- 17:00 Closing the event

Programme de Recherche Technologies Quantiques Journées On Board to Synergy – Edition 2025

Cross-fertilisation workshops on synergies within PEPR: progress and foresight

For any questions, please contact us at direction@pepr-quantique.fr

Workshop registration ([lien](#))
 Event Registration ([lien](#))
 Programme and guidelines ([lien](#))

List of workshops on Wednesday 3 September 2025

Suggested cross-cutting themes	Projects targeted		Start-ups targeted
Solid-state Qubits	Presquile Miracle Q MolQif Quantin RobustSuperQ	EQubitFly QuMoMi eDiamant NISQ2LSQ QMemo	Quobly Silent Waves HiQuTe Diamond C12
Atom Qubits	QubitAF Qafca Caramels Dyn1D	aQCess EpiQ Qares QMemo Qutisym	Pasqal QPerfect Welingq
Photonic Qubits	Oqulus, RobustSuperQ DiQKD	QMemo, QCommTestBed NISQ2LSQ	Quandela Welingq
Hardware & Software Crossroads	Presquile, RobustSuperQ Oqulus NISQ2LSQ	EpiQ QubitAF Qares aQCess	Alice&Bob Pasqal Quandela Quobly Silent Waves Welingq QPerfect
Networks, classical & quantum-safe security	PQTLS DIQKD	QMemo, QCommTestBed	Welingq Veriqloud Quandela Cryptonext