

GRENOBLE

2-3 OCT

QuantAlps Days 2023



MONDAY

2 OCTOBER

SCHEDULE

8:15– 8:45 AM | Registration

9:00 AM | Opening Speeches

Quantum Information & Software Sessions

9:30 AM | Secure Quantum Position Verification –
Andreas Bluhm

10:00 AM | Efficient Learning of Ground & Thermal
States within Phases of Matter –
Daniel Stilck França

10:30 AM | **Morning Break**

Humanities for Quantum Sessions

11:00 AM | Cultivating Public Interest in Quantum
Science through the Arts –
Nancy Kawalek

11:30 AM | Quantum Mechanics without “Marvel”:
Louis de Broglie, David Bohm and the
Quest for a Quantum Ontology –
Aurélien Drezet

12:00 PM | **Lunch Break & Poster Session**



QuantAlps

MONDAY

2 OCTOBER

Quantum Engineering & Hardware Sessions

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| 02:00 PM | Improving the Design & Understanding of Spin Qubits with Advances Numerical Simulations - Biel Martinez Diaz |
| 02:30 PM | Single-electron Spin Qubit in CMOS Quantum Dots - Matias Urdampilleta |
| 03:00 PM | Afternoon Break |

Humanities for Quantum Roundtable

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| 03:30 PM | Models of Quantum Society, 2050 - Thierry Ménissier, Tiana Delhome, Amélie Favreau, Julien Ridouard |
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Key Enabling Technologies Sessions

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| 04:30 PM | Superconducting Interconnects for 3D Integration of Quantum Technologies - Candice Thomas |
| 04:50 PM | Cryogenics Challenges for Quantum - Victor Doebele |
| 05:10 PM | Superconducting Traveling-Wave Parametric Amplifiers for Near Quantum-Limited Amplification - Luca Planat |



QuantAlps

TUESDAY

3 OCTOBER

SCHEDULE

8:20– 8:45 AM | Registration

Quantum Engineering & Hardware Sessions

9:00 AM | Non Local Thermal Conduction –
Nedjma Bendjab

9:30 AM | Josephson Tunneling at Odd Parity –
Julia Meyer

Quantum Matter Sessions

10:00 AM | Signatures of Fractional Quantum Hall
States from Few-body to Many-body –
Cécile Repellin

10:30 AM | Magnetic Van Der Waals Materials –
Clément Faugeras

11 AM | Morning Break

Key Enabling Technologies Sessions

11:30 AM | MRAM Memories in a Cryogenic
Environment – **Ricardo Sousa**

11:50 AM | Semiconducting Qubits with Embedded
Control & Readout Cryo-CMOS Circuits –
Baptiste Jadot

12:10 PM | Scalable & Flexible Architecture for
Room-Temperature Quantum Control of
Spin Qubits – **Eric Guthmuller**



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TUESDAY

3 OCTOBER

12:30 PM | Lunch Break & Poster Session

Quantum Information & Software Sessions

02:00 PM | Fault-Tolerant Preparation of Quantum Polar Codes Encoding On Logical Qubit - **Valentin Savin**

02:30 PM | Some Recent Experiments with Randomized Measurements on Quantum Processors - **Benoît Vermersch**

03:00 PM | Afternoon Break

Quantum Matter Sessions

03:30 PM | Electronic Quantum States & Collective Modes - **Marie-Aude Méasson**

04:00 PM | Bad Metal Behavior... Suspense! - **Simone Fratini**

04:30 PM | Panel Discussion & Closing Remarks

