QuIC Business Community Summit

Report of Contributions

https://indico.cern.ch/e/1565365

Contribution ID: **1** Type: **not specified**

Introduction to the Quantum Technology Initiative

Session Classification: Site Visits

Contribution ID: **2** Type: **not specified**

Quantum Technology Initiative: Examples Ongoing Activities

Contribution ID: **3** Type: **not specified**

Exploring CERN's Engineering Expertise and Needs

Contribution ID: **4** Type: **not specified**

CERN Venture Connect

Contribution ID: **5** Type: **not specified**

Introduction to the Quantum Technology Initiative

Tuesday 25 November 2025 14:00 (25 minutes)

Presenter: Dr VALLECORSA, Sofia (CERN)

Contribution ID: **6** Type: **not specified**

Quantum Algorithm Developments at CERN

Tuesday 25 November 2025 14:25 (20 minutes)

Presenter: Dr GROSSI, Michele (CERN)

Contribution ID: **7** Type: **not specified**

Quantum Sensing and Metrology

Tuesday 25 November 2025 14:45 (20 minutes)

Presenter: PIERINI, Maurizio (CERN)

Contribution ID: **8** Type: **not specified**

Atom interferometers for fundamental physics

Tuesday 25 November 2025 15:05 (20 minutes)

Presenter: BUCHMULLER, Oliver (Imperial College (GB))

Contribution ID: **9** Type: **not specified**

Quantum communications experiments at CERN

Tuesday 25 November 2025 15:25 (20 minutes)

Presenter: TEEPE, Annick

Contribution ID: **10** Type: **not specified**

CERN supporting quantum tech companies

Tuesday 25 November 2025 15:45 (15 minutes)

Presenter: DIEZ FERNANDEZ, Amanda (CERN)

Contribution ID: **11** Type: **not specified**

Integrated Diamond Lasers for Quantum Applications: Compact, Ultra-Stable, and Cost-Effective

Tuesday 25 November 2025 16:50 (20 minutes)

Quantum technologies demand laser sources that are compact, tunable, and exceptionally stable. At CERN, we have developed a new class of integrated diamond Raman lasers capable of converting the noisy output of a laser into a spectrally-pure, highly coherent beam employing a miniature diamond device. Originally designed for high-precision spectroscopy, these devices harness phonon-resonant processes to achieve their spectral purity. The result is a robust, alignment-free, and integrable laser platform ideally suited for quantum sensing, communication, and perhaps ion-based quantum computing among others.

Presenter: Dr GRANADOS, Eduardo (CERN)

Contribution ID: **12** Type: **not specified**

CERN's activities related to photonic integrated circuits

Tuesday 25 November 2025 17:10 (20 minutes)

Presenter: TROSKA, Jan (CERN)

Contribution ID: **13** Type: **not specified**

Partnerships and CERN Venture Connect

Tuesday 25 November 2025 18:00 (30 minutes)

Presenter: KRETZSCHMAR, Linn (CERN)

Contribution ID: **14** Type: **not specified**

Single photons detection and quantum applications with Timepix4

Tuesday 25 November 2025 17:30 (20 minutes)

Presenter: BOLZONELLA, Riccardo (CERN)

Contribution ID: **15** Type: **not specified**

Fast AI for quantum applications

Tuesday 25 November 2025 16:30 (20 minutes)

Presenter: PIERINI, Maurizio (CERN)