

Foreword Issue 62

We are pleased to present the Issue No. 62 of the Superconductivity News Forum which includes, first of all, 1 Plenary and 8 Invited presentations made at the **2nd International Workshop on Quantum, Cryogenic and Superconductive Computing** (QUEST 2025) which was held in Yokohama (Japan) from 27th to 29th October 2025. All these talks are from the Electronics category.

The Plenary presentation was made by Dr. Koji Inoue (Kyushu University) about “Towards Cryogenic Superconductor Classical/Quantum Computing from a Computer Architecture Perspective.”

The delivered Invited talks were the following: 1) Dr. Andrew Keller (Amazon Web Services) about “Physical Design Automation for Superconducting Qubits”; 2) Dr. Anthony Przybysz (Northrup Grumman) about “Advanced Modeling Tools for Superconducting Circuit Development”; 3) Dr. Leonard Johnson (MIT Lincoln Laboratory) about “Progress Towards High-density Superconductor Digital Logic”; 4) Dr. Johannes Delpont (Stellenbosch University) about “Empowering Quantum Design: Advanced EDA Tools and Services for Superconducting Circuits”; 5) Dr. Richard Rouse (IMEC) about “From SFQ to Quantum Sensing: A Versatile NbTiN Superconducting Platform”; 6) Dr. Samuel Benz (NIST) about “Development and Applications of Josephson Arbitrary Waveform Synthesizers”; 7) Dr. Satoshi Kawakami (Kyushu University) about “Towards Ultra-Low Power Computing: SFQ Brownian Logic Circuits”; and 8) Dr. Scott Holmes (IEEE IRDS) about “Large-scale Superconductor Electronics: Opportunities and Challenges.”

The Issue also includes the links to 1 recently published Review and 2 Roadmaps which widely cover topics in the Large Scale and Materials categories. The first one is an extended review entitled “Perspectives in power applications of low and mainly high temperature superconductors: energy, transport and industry.” It was written by researchers from CIEMAT and ICMA-B-CSIC from Spain and it is published in *La Rivista del Nuovo Cimento*. The second one is a roadmap entitled “Superconducting high-power cables and lines – Development status and technology roadmap,” and it was prepared with contributions from 30 institutions worldwide. It is published in *Superconducting Science and Technology*. The third one is another Roadmap entitled “2025 Roadmap on Nanoscale Superconductivity for Quantum Technologies,” and it includes contributions made by scientists from 51 institutions. It is also published in *Superconducting Science and Technology*.

We hope that you will find the content of the SNF Issue No. 62 informative and interesting. Remember to periodically check back to the site for continuous updates and announcements.

Xavier Obradors and the SNF Editorial Team