

The Institute for High-Performance Computing and Networking of the National Research Council (CNR-ICAR) has the mission of developing research, achieving technology transfer, and promoting advanced training in the areas of complex intelligent systems and high-performance computing, with a particular focus on advanced research topics such as Artificial Intelligence and Quantum Computing.

CNR-ICAR is organized across three locations (Rende, Naples, Palermo) and divides its scientific activities into three thematic areas:

1. Artificial intelligence and Data science
2. Cyber-physical systems and robotics
3. High performance and quantum computing

which include 14 Research Groups.

The institute develops significant applications in various sectors, such as eHealth, Bioinformatics, Precision Medicine, Energy, Cybersecurity, IoT, Smart Cities, and Cultural Heritage.

The institute participates in and coordinates several projects funded by the European Union and is involved in numerous initiatives under the National Research Council (PNRR). Furthermore, it is actively involved in project activities in collaboration with industries and public administrations.

CNR-ICAR currently employs about 105 permanent staff members and about 25 temporary staff members.

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LLOYD'S BAIA HOTEL Vietri sul Mare (Salerno)

XXI ICAR WORKSHOP & ERCIM EVENT ON QUANTUM COMPUTING

VIETRI SUL MARE (SA) | ITALY
1-3 DECEMBER 2025



Consiglio Nazionale
delle Ricerche



Istituto di Calcolo
e Reti ad Alte Prestazioni



DECEMBER 1

Day 1: Cooperation with PNRR initiatives and other networks

15:00 – 15:30

Welcome and Presentation of the Institute

Fabio Martinelli, Director of ICAR-CNR

15:30 – 16:30

Present and future of extended partnerships:

- Fabio Beltram, SNS – President of the CTS of NQSTI (National Quantum Science and Technology Institute)
- Nicola Blefari Melazzi, Univ. Tor Vergata – President of RESTART
- Giuseppe De Pietro, Univ. Pegaso – President of FAIR (Future Artificial Intelligence Research)
- Vincenzo Loia, Univ. Salerno – President of SERICS (Security and Rights in Cyberspace)

16:30 – 17:00 Coffee Break & Poster Session

17:00 – 18:00

Computing infrastructures for research in social sciences, medicine, etc.

- FOSSR (Fostering of Open Science in Social Science Research)
Giovanni Cerulli IRCRES CNR
- SoBigData - Roberto Trasarti ISTI CNR
- H2IOSC - Emiliano degl'Innocenti - CNR
- BBMRI and EOSC - Prof. Marialuisa Lavitrano UNIMIB

20:00 Dinner @ Lloyd's Baia Hotel

DECEMBER 2

Day 2: ERCIM event on Quantum Computing

09:30 – 10:00

Welcome and Introduction

- Emilio Fortunato Campana, Director of DIITET department at CNR
- Han Le Poutré, CWI – Elected-President of ERCIM
- Presentation of the ERCIM Working Group on Quantum Technologies (QT) - Francisco Chicano and Carlo Mastroianni

10:00 – 13:00

Research trends in Academia and RTOs

- Francesco Saverio Cataliotti - National Quantum Science and Technology Institute (NQSTI)
- Francisco Chicano - University of Malaga
- George Stamatiou - FORTH/University of Crete

Coffee Break & Poster Session (20 minutes)

- Mohammad Reza Mousavi (King's College London)
- Carlo Mastroianni - CNR
- Asle Sudbø - NTNU (remote)
- Sebastian Raubitzek - SBA
- Miroslav Dobsicek - RISE

13:00 – 14:00 Lunch Break

14:00 – 14:15

- Oscar Diez (Deputy Head of Unit, DGCONNECT C2) (remote)

14:15 – 16:00

Research and innovation trends from Industry

- Mayowa Ayodele (D-WAVE)
- Salvatore Cuomo (Quantum2PI)
- Daniele Dragoni (Leonardo)
- Max Haeberlein (IQM)
- Almudena Justo Martinez (Fujitsu)
- Alfredo Troiano (QuantumNet)
- Alessandro Zavatta (QTI)

16:00 – 16:15 Coffee Break & Poster Session

16:15 – 17:15

Wrap-up Closing Session: Future Trends in Quantum Computing

17:30 – 20:00

Visit to Luci d'Artista in Salerno

20:00 Dinner @ Luname Restaurant

DECEMBER 3

Day 3: The Institute

09:30 – 11:00

Presentation of the ICAR Research Groups

11:00 – 11:30

ICAR Award for Young Researchers

Giuseppe Manco coordinates the evaluation committee

11:30 – 11:50 Coffee Break

11:50 – 13:00

Discussion on current and future activities (including PNRR and Post PNRR)

13:00 Closing of the Workshop