

CRS4 files its first trademark of a software tool for quantum computers

Cagliari, May 4, 2023

CRS4, Center for Advanced Studies, Research and Development in Sardinia, has filed an international trademark for a software tool named *QCRA - Quantum Computing Run Assistant*, that can ease the benchmarking of multipurpose quantum computing codes, the analysis and the comparison of results obtained on devices based on different technologies (superconductors, trapped ions, neutral atoms, etc.).

The software can submit quantum computing jobs with a single, modular and adaptable interface on simulators and quantum computers available on site as well as on geographically distributed platforms, thus simplifying the work of programmers who usually deal with heterogeneous quantum computing languages and resources. It also performs advanced metadata collection that enables the user to evaluate the reliability of the computing outcome and therefore choose the most suitable computational resources related to the scientific and technological problems at hand.

Christian Solinas, Sardinian Regional President underlines: “Research, innovation and high technology are central elements for life, economic as well as social growth of our Island. The latter one, by exploiting the intense activity of CRS4, is able to highlight, once more, its role at the international level on such specialized and important issues for future developments for the human beings. Sardinia, by taking advantage of CRS4’s work that include high-tech projects in which it plays a leading role, confirms its desire to be characterised by an increasing impact on research as well as scientific and technological development at the regional, national and international levels”.

Giacomo Cao, CRS4 Sole Administrator declares: “A quantum computer leverages some of the unique properties of quantum physics and allows for the solution of extremely complex problems, even for current supercomputers, such as artificial intelligence, cybersecurity, novel materials, drug design, genomics and proteomics. Through this trademark registration, which protects its intellectual property, CRS4 aims at the continuous improvement of the performance of the in-house developed algorithms, targeting both their fast execution and the quality of the results”. Cao concludes: “We hope to acquire a state-of-the-art quantum computing device as soon as possible, that would allow us to become one of the most performing Centers on this topic at the international level”.

The working group involved in these activities consisted of the director Lidia Leoni, the technologist Carlo Podda and the researcher Giuliana Siddi, Erminia Leonardi and Lorenzo Pisani.

CRS4 Media Contacts

Greca Meloni - Head of Press Office

email: greca.meloni@crs4.it – mobile: +393472152650