

International Symposium on Quantum Sciences: Applications and Challenges Preliminary Call for papers: QSAC' 2023

September 24-25, 2023, Algiers, Algeria

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TBA

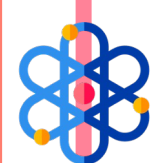
Keynote speakers

TBA



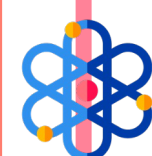
Scope

After artificial intelligence, quantum computing will usher in a greater technological revolution. Its impact will upset our society in such a short time and may disrupt the rhythm of human life. The intended goal of quantum computing is a dizzying acceleration in the computing speed of computers and the programming inherent in it. Quantum computing relies on quantum mechanics/physics laws to solve problems too complex for classical computers. It is concerned with hardware and software just like classical computing. Therefore, It revolves around the design of quantum computers and the development of quantum algorithms.



Objectives

The QSAC'2023 symposium aims to be an event to introduce in preview the main concepts and techniques of quantum sciences including quantum computing, quantum mechanics/physics, and quantum chemistry as well as their applications. QSAC'2023 will offer an exceptional opportunity for researchers, students, startups, entrepreneurs, and industrials to meet around this new science, learn about its concepts and prepare to understand the future with its cutting-edge tools. They will also discuss with eminent scientists who will be invited to lead conferences in the field. Just like artificial intelligence, quantum sciences hold great promise in terms of human life quality. They offer applications in many fields such as artificial intelligence, machine learning, deep learning, computational chemistry, materials science, drug development, bioinformatics, cybersecurity, optimization of logistics, weather forecasting, soil mapping, and agriculture. If the applications of quantum are numerous and varied, the challenges posed to it are considerable. They will be discussed as well as the dangers of the quantum era during this exciting event.



Topics

The QSAC'2023 topics are but not limited to:

- Quantum physics/ Quantum chemistry
 - Fundamentals of quantum computing
 - Thermodynamics of quantum computing
- Quantum hardware
 - Quantum computers architecture
 - Quantum Annealers
 - Analog quantum computers
 - Universal quantum computers
- Quantum software
 - Quantum algorithms and complexity
 - Error-Free Quantum Computing
 - Quantum programming



Applications

- Artificial intelligence
- Machine and deep learning
- Computer vision
- Natural Language Processing
- Multi-agent systems and Robotics
- Computational chemistry
- Medicine
- Material science
- Drug development and bioinformatics
- Cybersecurity and cryptography
- Logistics optimization and Metaheuristics
- Weather forecasting and environment science
- Soil mapping and agriculture technologies
- Earth Sciences



Important dates

Paper submission deadline

August 01, 2023

Acceptance notification

August 25, 2023

Camera-ready paper due

September 01, 2023

Conference date

September 24-25, 2023



Submission

Prospective authors are invited to submit their papers in English, using the Springer **CCIS** (Communications in Computer and Information Science) formatting guidelines. Full articles should be 12-15 pages, and short articles 6-11 pages.

Papers must be submitted through the **Springer** submission system.

Extension of selected articles will be submitted for publication in **national**, **WOS**, and **Scopus** journals.

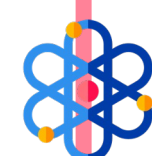


Symposium location

CIC Alger, Club des Pins, Staoueli,
Alger, Algérie.



المركز الدولي للمؤتمرات
عبد القادر مطرف
CENTRE INTERNATIONAL
DE CONFÉRENCES ALGER
ABDELATIF RAHAL



Organizer



With the collaboration of:



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[Laboratoire de Recherche
en Intelligence Artificielle
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