



2023

Summer School
on the Foundations of
Quantum Computational
Advantage

SPONSORING
BOOKLET



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Overview

FoQaCiA is a Europe-Canada project bringing together an interdisciplinary team of researchers from 7 European and 4 Canadian partner institutions to investigate the Foundations of Quantum Computational Advantage.

Our view is that the future success of quantum computing critically depends on advances at the most fundamental level and that large-scale investments in quantum implementations will only pay off if they can draw on additional foundational insights and ideas. While several powerful quantum algorithms are known, the basic techniques they employ are few and far between. Largely, it remains to be discovered how to systematically harness the quantum for computation.



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Goals

We aim to train a new generation of quantum information scientists, especially from widening countries where this area is just beginning to emerge. FoQaCia summer school is a two-week program focused on theoretical aspects of quantum computing aimed primarily at senior undergraduate and early graduate students.

The **first part** of the summer school consists of lectures on fundamental concepts and aims to provide a solid foundation in relevant approaches and techniques. Lectures are geared toward students in mathematics, physics, and computer science.

The **second part** is a research week where students will have a hands-on research experience in one of the projects run by an expert in the field. The research week is designed for students to have their first research experience in one of the prominent research directions under the guidance of their mentors.

Topics include:

- ▶ Stabilizer formalism
- ▶ Fault-tolerance
- ▶ Quantum foundations
- ▶ Quantum resources.



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When?

3rd–13th July 2023 (TBC)

For whom?

- ▶ Advanced undergraduate (3rd and 4th year);
- ▶ Early graduate students.

Where?

Bilkent University, Turkey.

Organisers

- ▶ Cihan Okay (Bilkent University);
- ▶ Rui Soares Barbosa (INL).



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Sponsorship Opportunities

	Bronze	Silver	Gold	Diamond
	€2,000	€4,000	€6,000	€8,000
Option to sponsor a project in the research week				✓
Option to sponsor a social event, e.g. dinner			✓	✓
Option to sponsor travel scholarship for international attendees			✓	✓
Industry session talk (20 mins)		✓	✓	✓
Top logo on the webpage, programme, and printed documents				✓
Prominent logo on the webpage, programme, and printed documents			✓	
Logo on the webpage, programme, and printed documents	✓	✓		
Social media post as sponsor	✓	✓	✓	✓
Free ticket with accommodation for up to 3 attendees				✓
Free ticket with accommodation for up to 2 attendees			✓	
Free ticket with accommodation for up to 1 attendee	✓	✓		

Partners



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