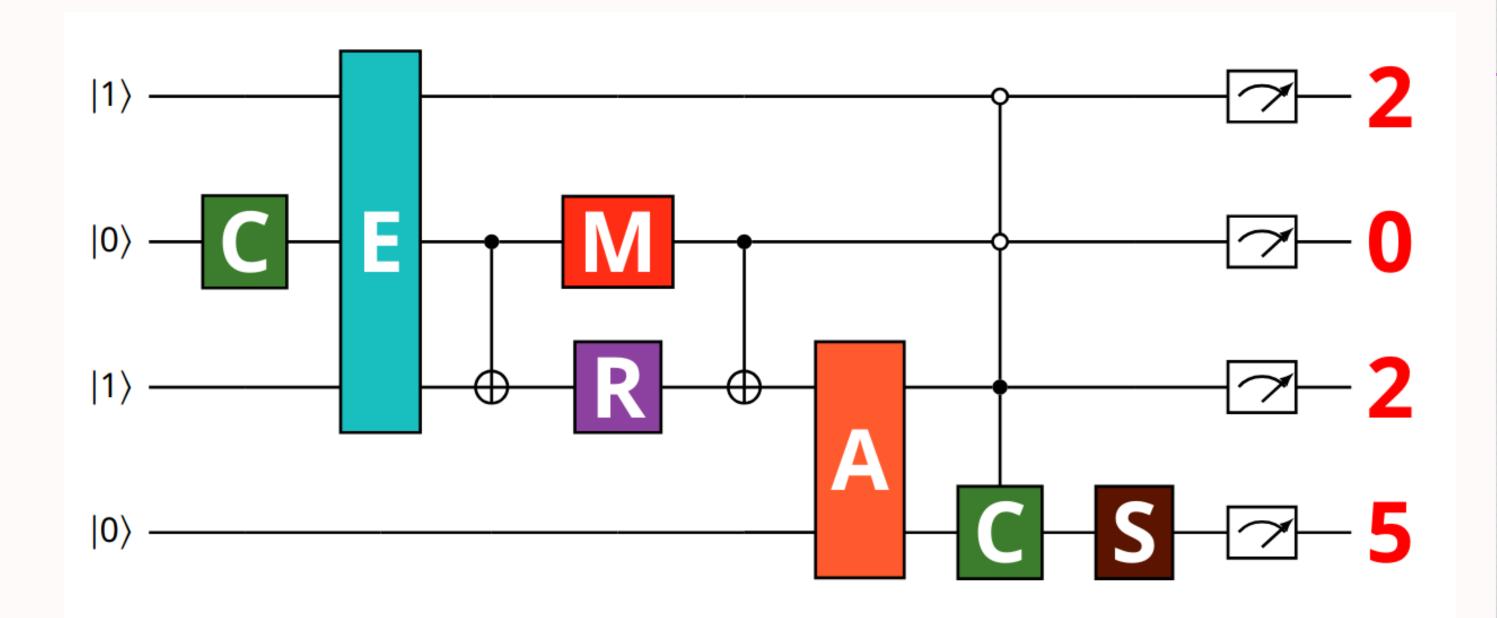
CEMRACS SUMMER SCHOOL 2025

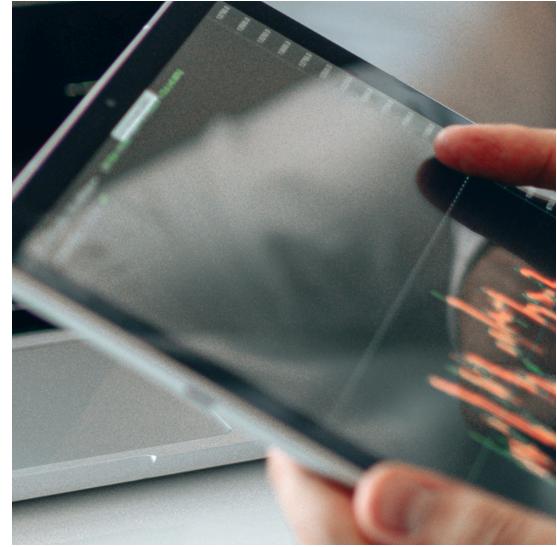


QUANTUM COMPUTING

OPPORTUNITY

JULY 15 -AUGUST 22, 2025









CIRM, Marseille





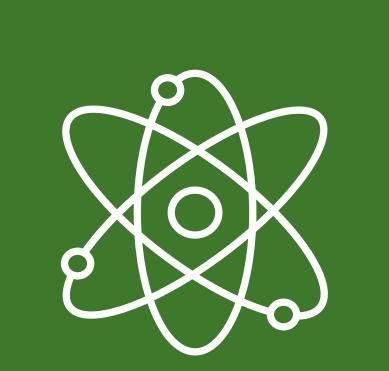


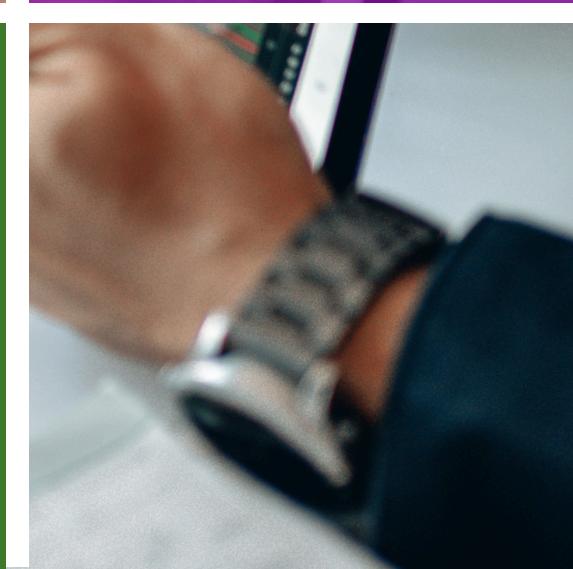
More Information







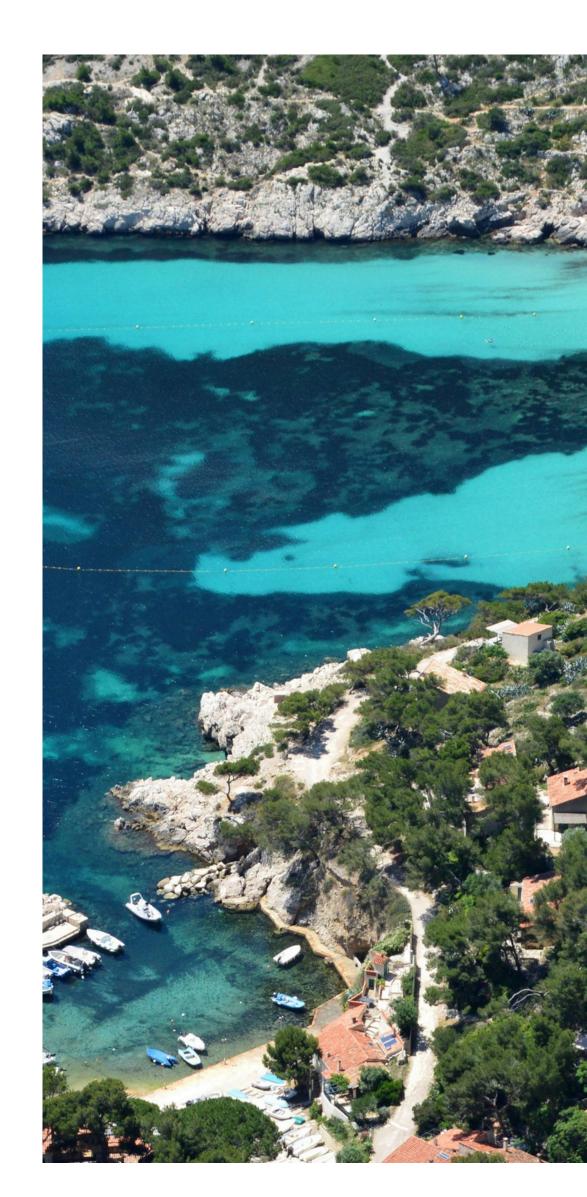




Quantum Opportunity

Are you an industrial or academic expert interested in *Quantum Computing*?

Do you have a dedicated research team, technological challenges to tackle, or simply want to start a quantum project and train your teams?



Don't miss this unique opportunity to be part of the largest Summer School on Quantum Computing!

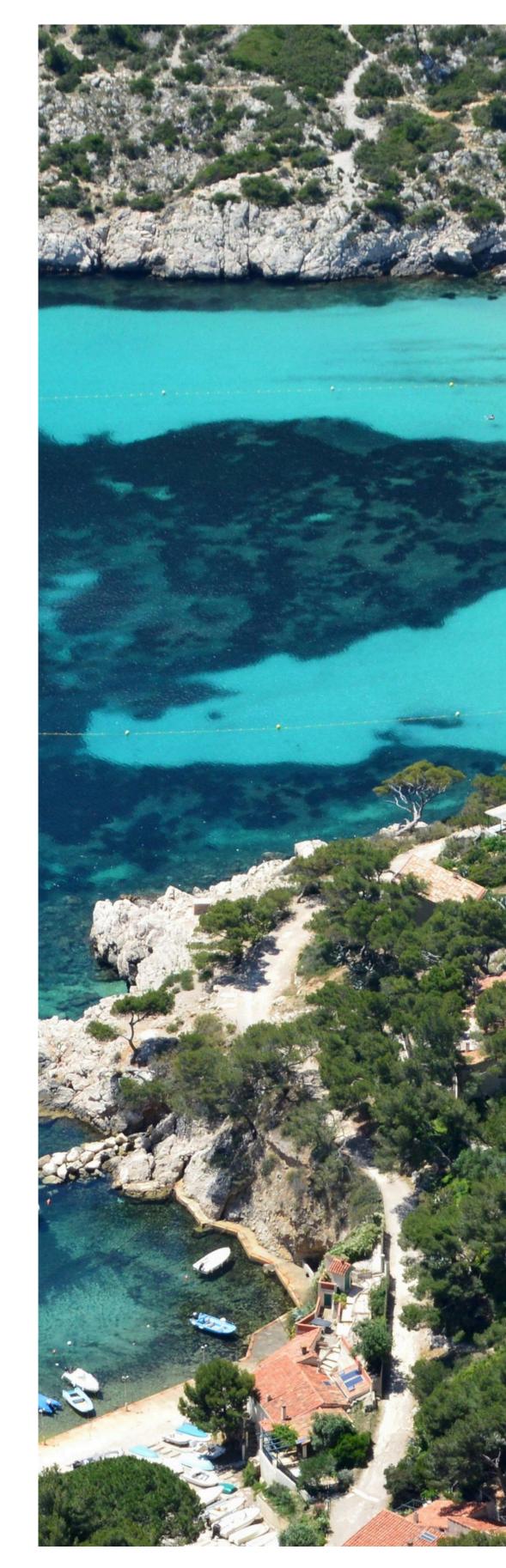


CEMRACS 2025 is organized by <u>SMAI and CC-FR/Teratec</u> and supported by:



About CEMRACS

CEMRACS is a six-week international summer school that has been organized by <u>SMAI</u> every summer since 1996 at the Centre International de Rencontres Mathématiques (CIRM), located in the beautiful Luminy campus near Marseille.



The 2025 edition will focus on Quantum Computing, with a special emphasis on two key domains deeply impacted by quantum technologies: scientific computing and cryptography.





Scientific Scope

CEMRACS 2025 aims to :

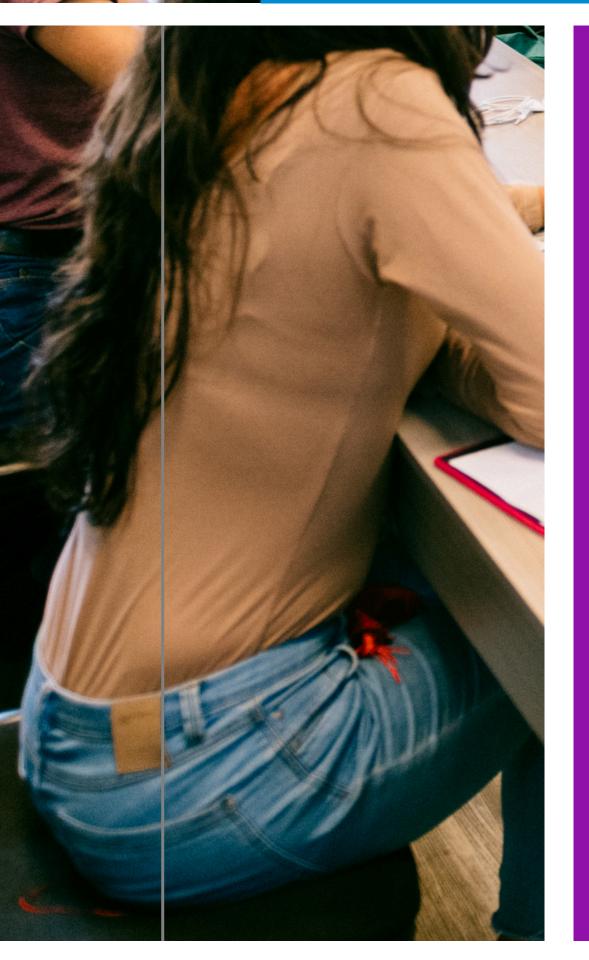




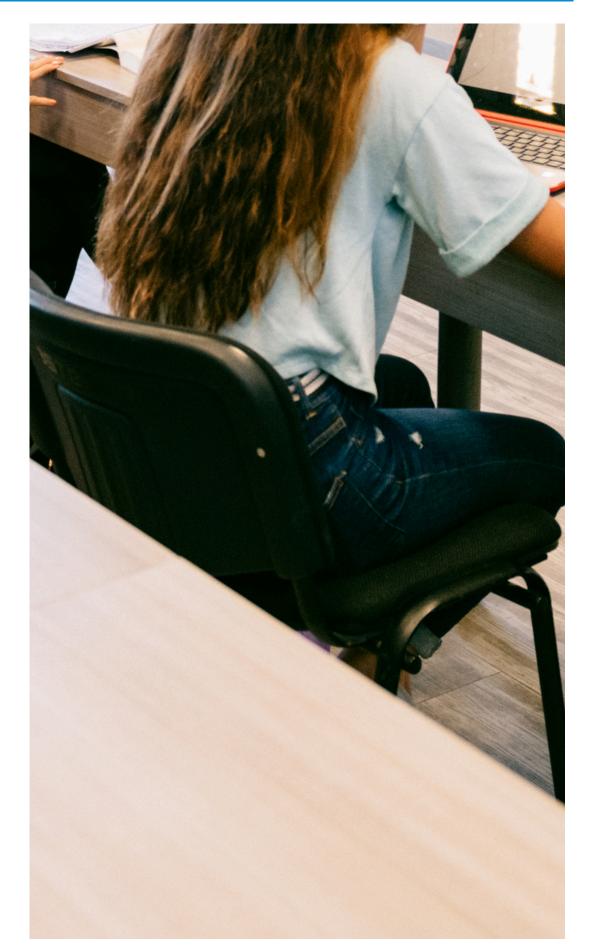
fundamentals, including ideal quantum computing frameworks and algorithms.



Explore the potential of quantum computing in scientific computations, including the adaptation and performance gains of existing algorithms in a quantum framework - part of the France Hybrid HPC Quantum Initiative



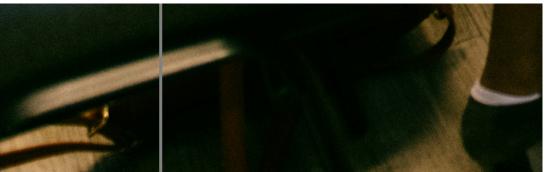
Focus on the need to develop Quantum Quantum cryptography and investigating new encryption methods for the post-quantum era.





Bridge the gap between

scientific computing and cryptography, fostering collaboration across disciplines









Structure of the event

CEMRACS follows a two-phase structure:

2





1 week -15-19 July 2025

In short

A week of lectures designed to provide participants with a strong foundation in quantum computing.

5 weeks -21 July - 22 August 2025

RESEARCH PROJECT PHASE

In short

Five weeks of Project-Based Research where participants collaborate on research projects proposed by industrial or academic partners.

Details

project.

The summer school is open to a wide community but also aims to provide a knowledge base for the participants who will stay for the following 5 weeks to work on a

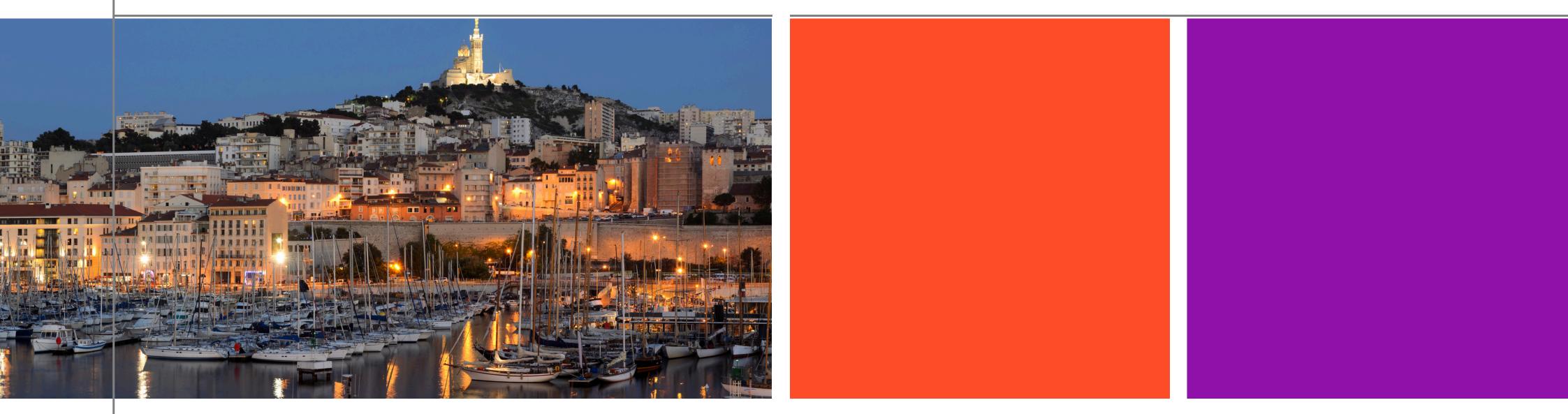
Details

Each project team consists of
2-3 young researchers,
supervised by experienced
researchers from the proposing
institution. The goal is to train the
next generation of researchers in
quantum computing and address
real-world questions from
industry and academia.









Becoming a partner of **CEMRACS 2025**

Partnering with CEMRACS gives your organization the chance to:

- propose a project to be tackled by young researchers and supervised by your experts,
- sponsor the event and gain visibility within the quantum computing community,
- train your teams through direct involvement in the school and reserach project phase,
- access top talent and recruit from the next generation of quantum experts,

 collaborate with leading academics in an interdisciplinary environment,

 benefit from extensive visibility as CEMRACS 2025 will be widely promoted across Europe through the EuroCC initiative, as well as within the French quantum ecosystem.



How to Get Involved?

1. Submit a Research Project

Industries and academic institutions are invited to submit project proposals. Each project will be assigned a team of 2-3 young researchers, supervised by senior experts.

2. Sponsorship and Financial Contribution

The 15,000€ standard sponsorship package includes:

- funding for two young researchers (PhD students or post-docs) for six weeks,
- three weeks of stay for a senior researcher (academic or industry expert) to be distributed over the six weeks,
- summer school registration for both young researchers and one senior from the sponsoring company.

The financial format and timeline can be adjusted on a

case-by-case basis.





Confidentiality and Open Collaboration

- Public Project Descriptions: the general description of submitted projects will be publicly displayed on the event website. Candidates will rank their preferences among at least three topics.
- Controlled Work Environment: once teams are formed, written content and code are developped on individual computers and may remain private if necessary.
- Encouraging Open Exchanges: while confidentiality is respected, the goal of CEMRACS is to foster knowledge exchange between young researchers and senior experts to overcome key technological challenges. It is recommended to submit topics that can remain at least partially open for collaborative discussion.
- **Publication** of the team's results is possible, but not automatic nor mandatory.



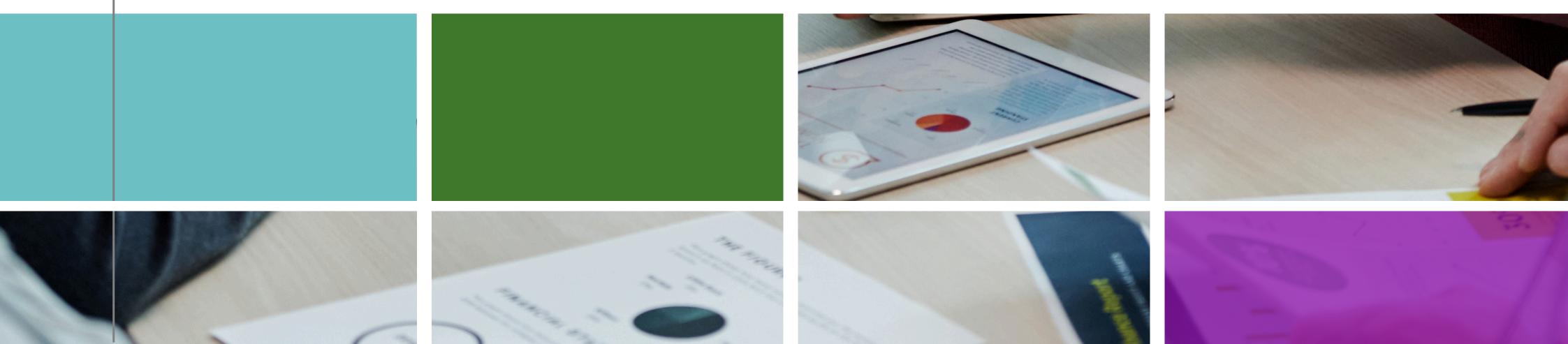
Check our Information Webinar!

Yvon Maday, co-founder of CEMRACS, and the

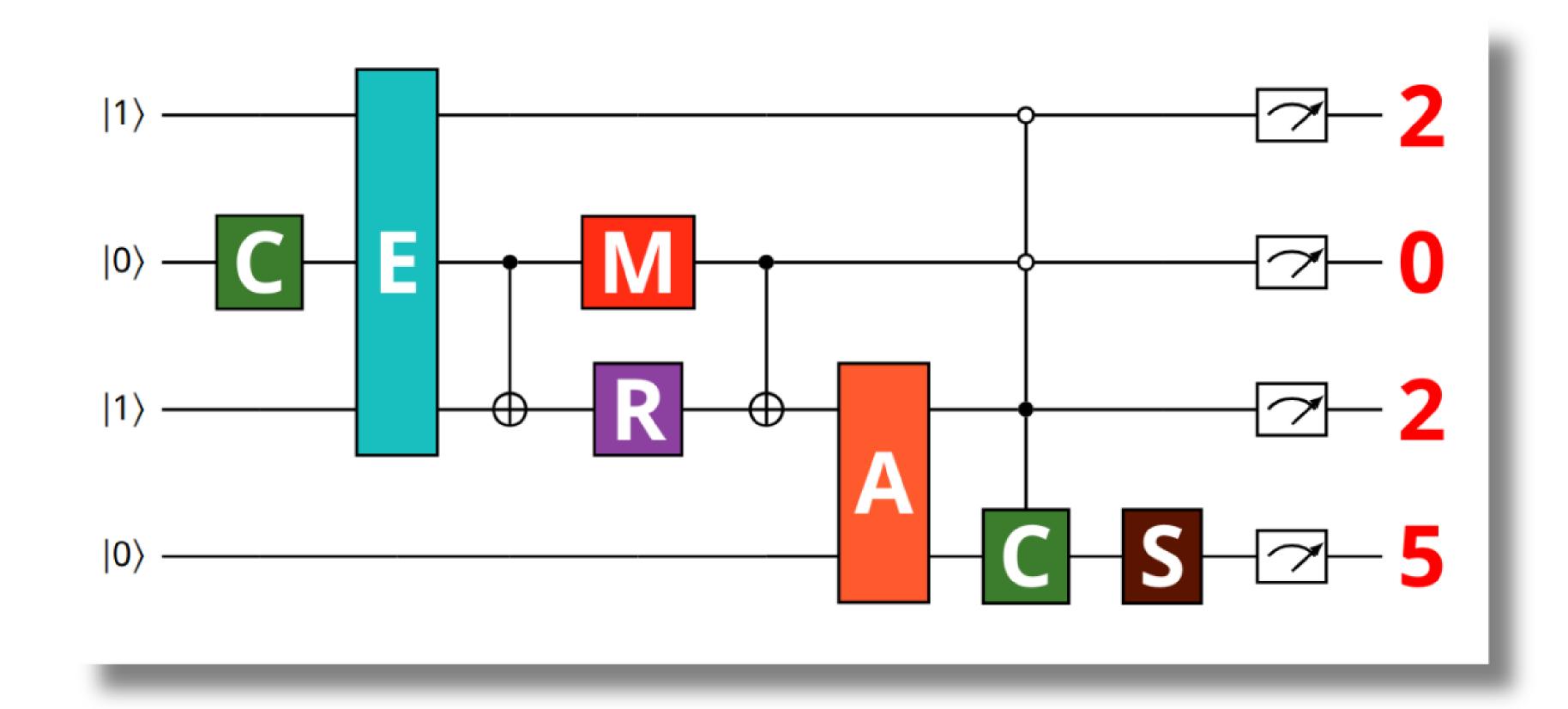
Organizing Committee hosted an **online webinar** to present CEMRACS 2025 and **answer questions** from potential sponsors and project providers:

You can access the replay here!





Be a part of the quantum revolution partner with us for CEMRACS 2025!



Thank You

If you have any question, please contact us:



<u>cemracs25@smai.emath.fr</u>



https://www.linkedin.com/company/cemracs-25/



https://cemracs2025.math.cnrs.fr/en/

