





# African School on Quantum Simulation and Quantum Information Science (ASQSQIS) | (smr 3686)

Starts 5 Sep 2022 Ends 9 Sep 2022 Central European Time Kigali - Rwanda Strada Costiera, 11 I - 34151 Trieste (Italy)

The aim of this school is to introduce students to advanced quantum mechanics concepts relevant to the growing field of quantum technologies, via a two-fold approach combining theoretical and computational aspects.

The first part of the school will feature an introduction to quantum information, computation and simulation. This part will also include a panoramic view of most quantum hardware platforms - atomic, photonic, and solid state.

The second part of the school will consist of an introduction to Qutip - an open-source software to simulate quantum systems, as well as several case studies in connection to real-world applications of quantum computing and simulation. Prior knowledge of quantum mechanics is necessary. Prior knowledge of Python is highly recommended. It is also highly recommended that students study about QuTiP (there are tutorials online) before joining the school, and also for the students to bring their laptops, to do practice sessions at the school.

The event is aimed at master and graduate students from all over Africa, and will feature a combination of blackboard-style lectures and tutorials on computational techniques.

## **LECTURERS**

S. CROSS (RIKEN)

M. DALMONTE (ICTP, Trieste, Italy)

**A. PITCHFORD** (Aberystwyth University)

A. SAMPERA (ICREA & Universitat Autonoma de Barcelona)

# **ICTP SCIENTIFIC CONTACT**

M. DALMONTE (ICTP, Trieste, Italy)

#### Organizers

Omololu Akin-Ojo (ICTP-EAIFR, Rwanda), Franco Nori (RIKEN & University of Michigan), Rosario Fazio (ICTP), Antonello Scardicchio (ICTP), ICTP Scientific Contact: Marcello Dalmonte (ICTP)

### Co-sponsors





Poster
Time Zone Info
Timetable

\*\*DEADLINE: 15/06/2022\*\*

There is no registration fee.

Grants will be given to a selected number of participants. \*\*DEADLINE: 15/06/2022\*\*

# Organizer(s)

Omololu Akin-Ojo (ICTP-EAIFR, Rwanda), Franco Nori (RIKEN & University of Michigan), Rosario Fazio (ICTP), Antonello Scardicchio (ICTP), ICTP Scientific Contact: Marcello Dalmonte (ICTP)

Cosponsor(s) ICTP-EAIFR, University of Rwanda Secretary Doreen Sauleek

applicants' terms and conditions data privacy and web terms of use

contacts phonebook sitemap

y fi D 0 0 0

ICTP is governed by UNESCO, IAEA, and Italy, and is a UNESCO Category 1 Institute