

PLUS+ TRAINING & DEVELOPMENT PROGRAM: Open Quantum Systems with Qiskit

Prof. SABRINA MANISCALCO

May 25, 2021

10:00 to 12:00

Online (Zoom)

During this short course we will give an overview of the basic concepts of the Theory of Open Quantum Systems and, at the same time, we will learn how to perform simulations of paradigmatic open systems models using near-term quantum computers. Specifically, we will use IBM Python-based language Qiskit for project-based examples of the course. The course is based on the Python book *½Open Quantum Systems with Qiskit½* which has won the 1st prize in the "IBM Teach Me Quantum Awards" in 2

20. All material is open source and available here:

<https://matteoacrossi.github.io/oqs-jupyterbook/index.html>. The students will have the opportunity of creating their own projects, which will become part of the book, in this way contributing to open science.

Due to recommendations in place to contribute containing the spreading of COVID-19, the Theory Lectures will be carried out remotely via Zoom. In case you want to receive an invitation to attend the online session, you can send an email to Giovanna.Petrillo@icfo.eu

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