University of Cyprus

Department of Physics

Public Lecture

Speaker: Prof. Yasser Omar (Portuguese Quantum Institute & University of Lisbon)

Date*|*time*|*venue: Thursday, September 11, 2025 | 17:00 | B102 (ΧΩΔ03)

The Revolution of Quantum Technologies

Abstract: In this talk, I will introduce in a non-technical way the key aspects of Quantum Physics, and discuss how they are being exploited to develop Quantum Information Science and Technology, namely quantum computation, quantum communications, and quantum sensing & metrology, and how these futuristic applications may revolutionize the Information Society we live in.

Speaker: Yasser Omar is a Portuguese quantum physicist, currently professor at IST, University of Lisbon, where he founded and leads the *Physics of Information and Quantum Technologies Group*. He is a corresponding member of the Portuguese Academy of Sciences. His research interests cover quantum computation, quantum networks, quantum sensing, and the energetics of Quantum Technologies. He has published 60+ articles in these areas. In the last decade, he has won more than 12 European and one American research project in the field of Quantum Technologies. In 2019, he founded the *QuTe Lab – Quantum Technologies Laboratory*, where free-space quantum communications were demonstrated for the first time in Portugal. He was also the founder and director of the Doctoral Programme in the Physics and Mathematics of Information at IST, University of Lisbon, and the coordinator of the Gulbenkian programme "New Talents in Quantum Technologies". He is involved in the coordination of the European Quantum Technologies programme, is the chair of the Advisory Board of *CERN's Quantum Technology Initiative*, and is the president of PQI – Portuguese Quantum Institute. Together with colleagues from more than 65 countries, he created *World Quantum Day – 14 April*, an initiative for scientific outreach at global scale, and is involved in the coordination the UN's *International Year of Quantum Science and Technologies – 2025*. website: http://www.phys-info.org/yasser-omar.html