



ECT*
EUROPEAN CENTRE
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QUANTUM SCIENCE
IN NUCLEAR PHYSICS AND RELATED AREAS



UNIVERSITY OF
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INSTITUTE OF
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Contribution ID: 33

Type: **Talk**

Quantum Photonics for applied quantum technologies

Friday, 10 May 2024 11:00 (1 hour)

Quantum technologies based on guided and integrated photonics represent a field in fully expansion due to the possibility of covering a wide panel of quantum light-based applications while exploiting system miniaturization to develop and test ambitious and scalable architectures. In this talk, I will present our results on the development of telecom-compatible photonics solutions, for immediate applicability to long-range quantum communication as well as for the investigation of more fundamental quantum optical aspects. In particular I will focus on multimode quantum light out of integrated optical sources as a key resource for light-based quantum applications. The generation, manipulation and detection of quantum states of light, coded on various degrees of freedom, will be discussed by presenting plug-n-play as well as integrated optics solutions relying on different technological platforms.

Abstract category

Presenter: Prof. D'AURIA, Virginia (Institut de Physique de Nice)

Session Classification: Invited contributions