## 13th Italian Quantum Information Science Conference



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## Integrated quantum photonics in femtosecond-laser-written devices

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Integrated photonics is a key enabler for quantum technologies, with significant improvements introduced in quantum computing, sensing and communications. Femtosecond laser writing of photonic circuits brings key advantages in terms of unprecedented 3D circuit layouts, possibility to manipulate polarization encoding, multimaterial devices and rapid prototyping. All these advantages are widely exploited in integrated quantum photonics applications and a few examples will be reviewed in this presentation. Progress towards the specific goal of developing a complete quantum photonic platform encompassing all the relevant functionalities will be discussed.

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