

Sacha Welinski

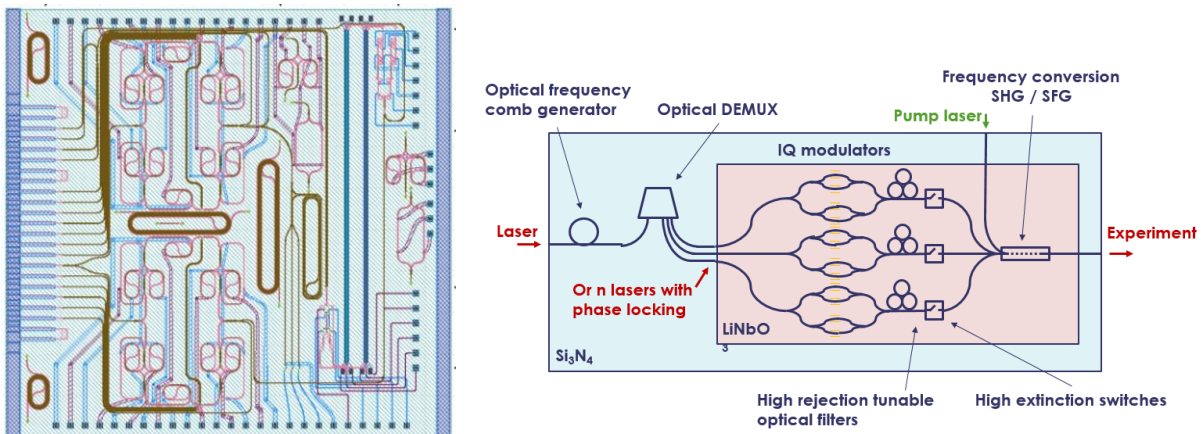
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Photonic Integrated Circuits: From classical to quantum applications

Photonic integrated circuits (PICs) provide a new paradigm in terms of scalability and performance for many photonic applications. In this talk I will present an overview of current investigations and developments involving PICs at Thales Research & Technology. I will particularly focus on new functionalities brought by this technology for signal processing and communications or lidars. I will also talk about future use of integrated photonics regarding quantum science, such as quantum sensing or quantum communication.



Left : Layout of a SOI photonic integrated circuit for RF signal processing. Right : future PIC for optical qubit preparation and control.