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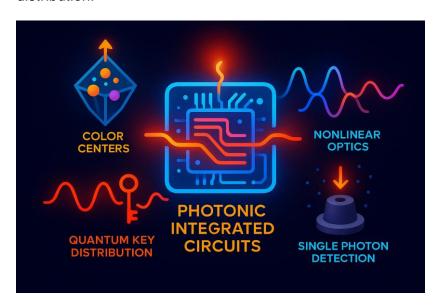
b UNIVERSITÄT BERN

## Seminar über Ultrafast Science and Technology

**Referent:** Prof. Dr. Stéphane Clemmen, FNRS research associate Ghent university – imec & Université Libre de Bruxelles

Photonics integrated circuits (PICs) have matured to the point that they become miniaturized optical tables on which most functionalities and materials ubiquitous to optics can be interfaced. In addition to their suitability for mass fabrication, PICs offer distinguished features such as intrinsic mechanical stability and often offer tight light confinement suited to maximize the light mater interaction. These features make PIC relevant to generate, store, manipulate and detect quantum light. These building blocks open the road to applications ranging from quantum sensing, quantum key distribution and quantum computing.

I will present our recent progress on two important building blocks - quantum light sources and single photon detectors - and one system application - quantum key distribution.



Zeit: Thursday, December 4, 2025, 11.15 Uhr

Ort: Room B116, ExWi, Sidlerstrasse 5, Bern, Schweiz