

## **Different platforms for integrated optics from near- to mid-infrared**

During this talk we will review the basis of integrated optics and we will describe and compare the different available photonics platform (silicon photonics, Lithium Niobate, III-V materials, chalcogenides, ... ) for the development on non-linear based devices in different wavelength ranges from near infrared to long wave mid-infrared.



Lecturer: Delphine Marris-Morini is a Professor at Paris Saclay University. Her research interests at the Center for Nanosciences and Nanotechnologies covered first high speed and efficient silicon photonics devices for telecom applications. Since 2009 she developed a new route towards efficient on-chip optical links based on Ge/SiGe quantum wells structures. She then shifted her research activity towards mid-IR range based on SiGe photonics circuits that she developed during an ERC starting grant (2015-2020). Recently she obtained an ERC advanced grant (2023-2028) on electro-optic frequency comb generation in the mid-IR wavelength range. She received the bronze medal from CNRS in 2013 and the Fabry De Gramont prize in 2017.