

8 Master-2/Third-year-engineer-school RESEARCH INTERNSHIPS
> 2 funded PhD scholarships for PhD projects starting at September 2018

Internship topics :

[Effets nonlineaires nanophotonique Si](#)

Contact: [Eric Cassan](#)

[Subwavelength nanostructured Si photonic devices](#)

Contact: [Carlos Ramos](#)

[Photothermal effect for high-performance silicon photonics sensors](#)

Contact: [Carlos Ramos](#)

[Deep learning models for miniaturized silicon photonics sensors](#)

Contact: [Carlos Ramos](#)

[Strained silicon photonics for nonlinear optics](#)

Contact: [Laurent Vivien](#)

[Photodiodes à avalanche dans la filière germanium pour le développement d'une nouvelle génération de récepteurs intégrés](#)

Contact: [Laurent Vivien](#)

[Characterization of silicon modulators for Radio over fiber \(RoF\) applications](#)

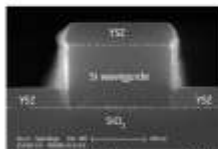
Contact: [Delphine Morini](#)

[Active photonic devices for mid IR photonic integrated circuits](#)

Contact: [Delphine Morini](#)

Si photonics: from physical concepts to devices

- High speed optoelectronics devices
- Ge/SiGe Quantum well nanostructures
- On-Si hybrid integration : III-V, Carbon nanotubes, polymers, functional oxides...
- Strained Silicon and nonlinear optical devices
- Subwavelength Si structures
- Mid-IR photonics



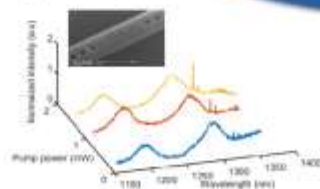
Strained silicon photonics

Silicon photonics

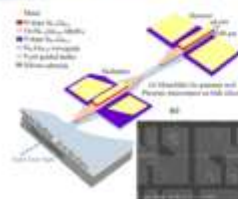
for high speed optical communications,
quantum key distribution, sensing,
mid-IR spectroscopy



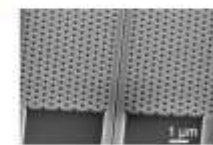
Sub-λ nanostructures



Carbon nanotube based photonics



Ge/SiGe QW



Slot Photonic crystals