

Nicolas PERNET

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Career plan for the next years:

- 09/2018 - 09/2021 : PhD in polaritons physics - Bloch Jacqueline, *Centre de Nanosciences et Nanotechnologies (C2N), Marcoussis.*

Education:

- 09/2017 - 08/2018 : M2, Master LOM (Laser, Optics, Matter) - Paris Saclay University/ ESPCI Paris
Ranked first in: *Nonlinear Electromagnetism, Light-Matter interaction in semiconductor nanostructures, Quantum dynamics of few body with low energy.*
- 09/2016 - 06/2017 : Engineering school - *ESPCI Paristech, Paris* - equivalent to 5th year University Grade
Major: physics.
- 09/2014 - 05/2016: Engineering school - *Institut d'Optique Graduate School (IOGS), Palaiseau*
Majors: photonics and computer science.
- 09/2011 - 05/2014 : Three years of preparatory classes (CPGE) : intensive courses preparing for the competitive entrance exam for the top schools - *Lycée Faidherbe, Lille*
Majors: physics, chemistry and mathematics.
- 09/2008 - 06/2011: High school degree in sciences with highest honors ("mention très bien")- *Lycée Edouard Branly, Boulogne-sur-Mer*

Laboratory Experience:

- 03/2018 - 07/2018: Five months internship in polaritons physics - Bloch Jacqueline, *Centre de Nanosciences et Nanotechnologies (C2N), Marcoussis.*
Topological physics with cavity polaritons.
- 05/2017 - 07/2017: Three months internship in biophysics - Pezet Sophie, *Laboratoire de plasticité du cerveau, ESPCI Paristech, Paris.*
Software development to study brain and spinal cord functional connectivity and their modifications due to chronic pain.
- 06/2016 - 08/2016: Three months internship in radiometry - Wilson Helen-Rose, *Fraunhofer-Institut für Solare Energiesysteme ISE, Freiburg im Breisgau, Germany.*
3D-Photogoniometric measurements and integrated reflectance spectra measurements thanks to an integrating sphere.
- 06/2015 - 07/2015: Five weeks internship in biophotonics - Bon Pierre, *Laboratoire Photonique, Numérique et Nanosciences (LP2N), Bordeaux.*
High resolution holographic microscopy and image processing.
- 2015 - 2016 : Engineering project - Dubreuil Nicolas: fiber-optic transmission methods
Development of a practical work for the next generations of IOGS students, presenting different methods for telecommunication enhancement.
Concepts covered: wavelength multiplexing, polarization multiplexing, amplitude and phase modulation, PAM4 modulation format.

Awards:

- Olympiads of physics: high school competition
2009-2010: 3rd prize of the national competition
2010-2011: 2nd prize of the national competition