

Simon BERNON is assistant professor at Institut d'Optique Graduate School and University of Bordeaux where he oversees the activities related to hybrid quantum systems including the coupling of quantum gas to solid state system. In past experiment, he invested on cold atom / superconducting device hybrids and has been leading a young researcher ANR project (2018-2022) on sub-wavelength tailoring of optical traps in the close vicinity of surfaces that opens on novel perspectives for integrated quantum gas technologies. Controlling atoms close to surfaces lead him to start an exciting European collaboration (MOCA 2022-2026) that targets the coherent and reversible conversion of optical and microwave photons. The engineering of light matter interaction properties is at the heart of his current research that focus on the enhancement of light scattering of cold atom emitters placed in the core of an atomic waveguide which he carries within the CANNON project. In parallel, to this fundamental research, he is also investigating the capabilities of coherent phase information encoding for free space optical communication applications. At Institut d'Optique and University of Bordeaux, he is responsible of the entrepreneurship program and for teachings in Atomic Physics and Light Matter Manipulation.