



Postdoc positions in the cold-atom group in Nice (France)

The cold-atom group is led by Robin Kaiser at [Institut de Physique de Nice](#), a lab from [Université Côte d'Azur](#), one of the top research Universities in France (Excellence label).

The group has currently 14 people and runs four cold-atom experiments, see the webpage: <https://inphyni.univ-cotedazur.eu/sites/cold-atoms>. It has currently two open postdoc positions. The positions will stay open until filled. Please contact the person in charge of the project you are interested in.

Ytterbium experiment

In the framework of the [ERC project ANDLICA](#), we have built a new Ytterbium experiment. The goal of this experiment is to study **Anderson localization of light** by cold atoms. This experiment is still in the early stages and requires further development in parallel with investigations on cooperative scattering of light by cold atoms.

We are seeking an experimental postdoc to join our cold Ytterbium experiment. He/she will join the team of the 3 PhD students and will oversee the experimental implementation of this project. For this position, we are looking for someone with advanced experimental skills and motivation, ideally with a first experience in cold atom experiments. The postdoc will be in charge of the experimental implementation, data analysis and some modeling of the atomic physics at play. In addition we expected him/her to identify experimental protocols (of calibration and suitable observations of the required signature of subradiance, coherent backscattering and localization) as well as training and guiding the team of PhD students on cold atom techniques.

Contact person: **Robin Kaiser**, robin.kaiser@inphyni.cnrs.fr

Rubidium Experiment

In the framework of the [PACE-IN European QUANTERA project](#), we want to pursue experiments on collective effects on light-atom interactions using cold atoms trapped in a 1D optical lattice. The atomic periodicity gives rise to a **photonic band gap**. We want to study the rich physics associated to this band gap (modification of the spontaneous emission rate, slow light, etc.) and devise protocols to use it for quantum manipulation of light, for example as a quantum all-optical switch (using electromagnetically-induced transparency).

For this project we are seeking a motivated experimentalist with a prior experience in cold-atom experiments. The candidate will work in team with another PhD student already working on this project and will contribute to his supervision. Interplay between experiments and numerical simulations is expected, with international collaborations.

Contact person: **William Guerin**, william.guerin@inphyni.cnrs.fr