



3-year junior position

In

NANOPHOTONICS and QUANTUM OPTICS IN COMPLEX MEDIA

At institut Langevin, ESPCI ParisTech, Paris (FR)

In the context of a 5-year european project, we are offering a **3-year junior position** at Institut Langevin, in ESPCI ParisTech, Paris, aiming at young researchers with a PhD and 0-3 year postdoc experience.

Wave propagation in complex (disordered) media stretches our knowledge to the limit in many different fields of physics. In **optics**, it is of great importance in photonic devices, such as photonic crystals, plasmonic structures or random lasers. At Institut Langevin in Paris, we have recently demonstrated that *wavefront shaping* is a tool of choice to match and address the huge complexity of this problem in optics [1-3]. The goal of the team is to extend this idea further, in particular for imaging (ex: deep microscopy), for nanophotonics (ex: controlling a nano-object), as well as to address important fundamental questions, such as Anderson localization. We are launching an experimental project aiming at a *full spatial and temporal control of a nano-object in a complex environment*.

We are looking for a motivated candidate, with a strong background in physics and with prior experience in experimental optics, particularly in the field of femtosecond science, non-linear optics, **nanophotonics**, or **quantum optics**, but other candidates with an excellent track record are welcome. Most importantly, we are looking for a good physicist with an ability to work in a team, and a taste for challenging experiments. The candidate will have the opportunity to interact both with PhD students and with international collaborators.

The position will include a teaching duty of approximately 120 hours/year at the master level. Good pedagogical skills and a taste for teaching are therefore also required.

The position is available now. Salary will depend on the experience of the candidate but starts at approximately 2300€ net/month. The application, comprising a detailed C.V., a statement of interest, and the name and contact of two references, should be sent via email to:

Dr. Sylvain Gigan

Email: sylvain.gigan@espci.fr

Webpage: <http://www.institut-langevin.espci.fr/>

References:

[1] S. Popoff et al., PRL 104, 100601 (2010) [link](#)

[2] S. Popoff et al., Nature Communications, 1, 78 (2010) [link](#)

[3] D. McCabe et al. Nature Communications 2, 447 (2011) [link](#)