



Postdoctoral position at University Paris-Saclay, France

TEMPORAL METROLOGY FOR ADVANCED ULTRASHORT XUV SOURCES

Institut des Sciences Moléculaires d'Orsay (ISMO), Université Paris-Sud, DIRAM group
Laboratoire Charles Fabry (LCF), Institut d'Optique Graduate School, XUV group

A two-year postdoctoral researcher position funded by the Laboratory of Excellence PALM, is presently available to join a collaborative project between two research groups at ISMO and LCF, University Paris-Saclay.

The postdoctoral researcher will participate in the commissioning and the scientific exploitation of a new instrument designed and built at ISMO. This diagnostic will enable the temporal characterization of ultra-short XUV pulses (with durations ranging from 1 picosecond to 10 attoseconds) with a single-shot capability. The measurement technique is based on laser dressed photoionization in a velocity-map imaging spectrometer.

This instrument was designed to be compact and portable to facilitate its implementation on various laser facilities in the Paris-Saclay University. Experiments will take place in collaboration with the local developers of laser-driven XUV sources having different temporal features: high-order harmonics from gas or solid, plasma-based XUV lasers.

The implementation of the project will also notably include advanced data processing techniques developed at LCF. Original iterative algorithms will be used to extract the temporal information from the angularly resolved photoelectrons spectra.

The candidate should have a PhD degree in physics granted within the last four years, and experience with some of the following topics:

- Gas phase photoionization using XUV radiation sources
- Velocity-map imaging spectroscopy & data analysis (Abel inversion techniques)
- Ultrashort pulse metrology
- Laser-driven XUV or X-ray sources

The position is currently available for one year with the possibility of one year extension on mutual agreement.

Motivated candidates should forward a CV and contact information for two references **before May 15, 2017** to:

Annie Klisnick – annie.klisnick@u-psud.fr
and/or Charles Bourassin-Bouchet – charles.bourassin-bouchet@institutoptique.fr