

We are pleased to announce a

Fully-funded 3-year PhD position

for a well motivated candidate with a strong background in experimental/theoretical chemical physics to join our research program studying ultrafast phenomena in strongly correlated electron systems via X-ray spectroscopies.

Our offer

Based in the Pierre et Marie Curie campus in the heart of Paris, the PhD candidate will join an academic and research institution with outstanding infrastructure and will have the opportunity to work in a lively scientific environment. **Sorbonne Université** is the largest scientific/medical academic complex in France. **Laboratoire de Chimie Physique - Matière et Rayonnement** (LCP-MR) maintains strong ties with the French national synchrotron light source SOLEIL. We are strongly engaged in the development of X-ray spectroscopies for time-resolved studies. In a recent series of pioneering beamtimes we used the femtosecond time structure of a free electron laser (FEL) to explore the ultrafast dynamics of electronic and magnetic excitations in a 3d metal oxide. In these pump/probe experiments femtosecond laser excites a sample, taking its electronic structure out of equilibrium. The system's time evolution is observed using resonant inelastic X-ray scattering (RIXS)¹. This PhD thesis will focus on pump/probe time-resolved RIXS studies at the 3p-3d and 2p-3d resonances of 3d ions in strongly correlated electron systems and is therefore situated at the forefront of research in ultrafast phenomena^{2,3}. For further information please contact us at the address indicated below.

The PhD position is funded for **three years** through the **Doctoral School 388 "Chimie Physique et Chimie Analytique de Paris-Centre"**. The gross salary is fixed by administrative regulations at 1769€/month (for more information please visit www.enseignementsup-recherche.gouv.fr/cid76053/le-financement-doctoral.html).

The contract will start on **October 1st, 2021**.

Your profile

We are looking for a candidate (m/f/d) with a Masters degree in chemical physics, physics or related fields. Experience in the operation of experimental setups, as well as interest in data analysis and programming will be appreciated. The candidate should be open to working in both national and international teams.

Application

Please send your application including a letter of motivation, your CV, recommendation letters from previous supervisors (master internships), diploma and a transcript of the academic record for Master 1 & 2 (if ongoing, only for the first semester of M2) to:

Dr. Gheorghe S. Chiuzbăian <gheorghe.chiuzbaiian@sorbonne-universite.fr>

**Applications should be sent in as early as possible,
latest by June 11th, 2021.**

¹S. G. Chiuzbăian, *A Student's Introduction to Resonant Inelastic Soft X-ray Scattering*, in "Magnetism and Synchrotron Radiation: Towards the Fourth Generation Light Sources" (edited by E. Beaurepaire *et al.*), Springer Proceedings in Physics", Vol. 151, p. 185 (Springer, Berlin, 2013).

²M. Mitrano and Y. Wang, *Communications Physics* 3, 184 (2020)

³E. Paris *et al.* *arXiv:2104.03557 [cond-mat]* (2021)