PhD opening in Biophysics

(Institut de Biologie Structurale, Grenoble, France)

Structural dynamics of light-sensitive proteins studied by time-resolved crystallography at XFELs

Serial femtosecond crystallography (SFX) at X-ray free electron lasers (XFEL) allows studying crystalline proteins *at work* by means of time-resolved crystallography (TR-SFX). We apply TR-SFX to explore conformational changes after photon absorption by various light-sensitive proteins on a broad time scale ranging from sub-picoseconds to seconds (Nature Chemistry 10, 31 (2018)). These animate structures obtained by static SFX (J Phys Chem Lett 7, 882 (2016); Nature 539, 43 (2016).

We have an opening for a PhD student at the *Institut de Biologie Structurale* (www.ibs.fr) in Grenoble, France, to study the structural dynamics of light-sensitive proteins by time-resolved serial crystallography at XFELs and potentially future 4th generation synchrotrons.

Experiments are being carried out at the XFELs in Hamburg (EuXFEL), in Japan (SACLA), at Stanford (LCLS), in Switzerland (SwissFEL) and are planed to take place at the ESRF synchrotron after 2020.

We welcome applications from students trained in protein biophysics, and preferably in crystallography.

For a description in French of the group's XFEL activities, please see:

http://www.ibs.fr/IMG/pdf/dynamop_2019_jan_cea_mensuel_extract.pdf

If you are interested, please contact either Martin Weik (weik@ibs.fr) or Jacques-Philippe Colletier (colletier@ibs.fr).