

Processing serial crystallography data measured at FELs and synchrotrons

Our group (group leader H.N.Chapman) is one of the inventors of Serial Crystallography (SX) –the method when many protein crystals are measured in random orientations to get the full 3D structure of the protein. This technique was developed for Free Electron Lasers (FELs) but now it is also becoming a standard technique used at modern synchrotrons. Having a lot of experience and expertise in SX our group is involved in many experiments at the most advanced x-ray sources in the world (LCLS, eXFEL, Petra3, APS, ESRF). Each experiment produces 50-1000Tb of data and we are involved in approximately one experiment per month. Therefore, we have a lot of interesting data to process. And such experiments often results in a high impact publication.

The summer student has a chance to participate in some experiments (most probably remotely) –depending on the schedule of the beamtimes during summer. If the student likes the data processing activity, the scientific collaboration can be extended outside the time frame of the summer school.

Field

A4: Development of experimental techniques (methodology oriented)

DESY Place

Hamburg

DESY Division

FS

DESY Group

CFEL-FS1

Special Qualifications:

Some knowlege of Python or C.

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