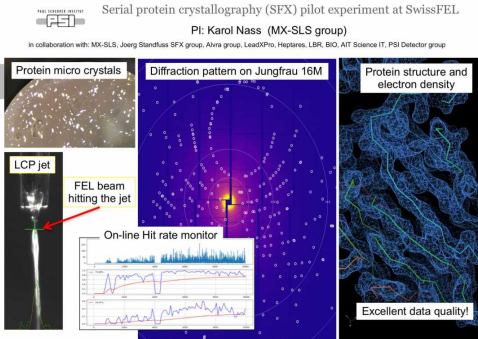


First serial femtosecond crystallography (SFX) pilot user experiment at SwissFEL



A collaborative group of scientists from the Paul Scherrer Institute and members of the LeadXpro and Heptares pharmaceutical companies led by Karol Nass (PSI macromolecular crystallography MX-SLS group) performed the first serial femtosecond crystallography (SFX) pilot user experiment at the Swiss X-ray free electron laser SwissFEL. Serial femtosecond crystallography is an emerging technique for structure determination of radiation sensitive micro-crystals that takes advantage of the ultra-short pulse durations from an XFEL and allows access to reaction time scales previously not reachable by conventional time-

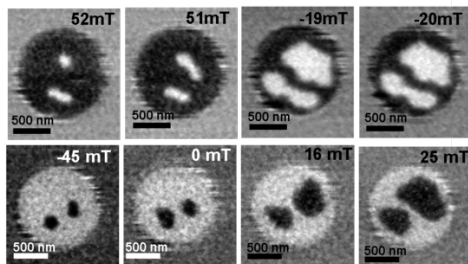
resolved crystallography. Read more: <https://www.psi.ch/swissfel/first-sfx-experiment>

Discrete Hall contribution of magnetic skyrmions

Discrete Hall resistivity contribution from Néel skyrmions in multilayer nanodiscs

Katharina Zeissler et. al, *Nature Nanotechnology*, 2018

DOI: [10.1038/s41565-018-0268-y](https://doi.org/10.1038/s41565-018-0268-y)



The reliable electrical detection of magnetic skyrmions is of fundamental importance for the application of such topological magnetic quasi-particles for data storage devices. Researchers in a joint collaboration between the University of Leeds and the PolLux endstation have investigated the electrical detection of isolated magnetic skyrmions in applications-relevant nanostructured devices, observing the presence of a strong skyrmion-dependent contribution to the Hall resistivity.

Read more: <https://www.psi.ch/microspec/discrete-hall-contribution-of-magnetic-skyrmions>

CALIPSOplus – EU I3 Access Program also for SMEs



Claire Donnelly, Mesoscopic Systems (ETH Zurich - PSI), was awarded the COMSOL SPS Award in Computational Physics, the Werner Meyer-Ilse Memorial Award, the ETH Medal for an outstanding doctoral thesis, and the American Physical Society Richard L. Greene Dissertation Award. These awards recognize the exceptional quality and importance of her dissertation on “Hard X-ray Tomography of Three Dimensional Magnetic Structures”, carried out in collaboration with Sebastian Gliga, the CXS group, and the OMNY project.

Experiments have been carried out at the cSAXS beamline (<https://www.psi.ch/sls/csaxs/>). She will continue her research at the University of Cambridge with a Leverhulme Fellowship supported by the Newton Trust. We wish her every success! - Image courtesy of the APS. Read more: <https://www.psi.ch/lsb/>