Annual Meeting of the Swiss Physical Society 2024



Contribution ID: 92

Type: Talk

[614] Ultrafast soft X-ray magnetic holography at SwissFEL

Tuesday 10 September 2024 17:45 (15 minutes)

X-ray imaging at synchrotrons have enabled a significant advancement in the understanding of the physics driving magnetic systems. Nevertheless, for X-ray imaging at ultrafast timescales, free-electron lasers become a necessity. In my talk, I will present the first results of the X-ray holography magnetic imaging setup recently commissioned at the Maloja endstation at SwissFEL (PSI, Switzerland). This is a lensless imaging technique that allows the retrieval of both amplitude and phase information of the sample transmission function. The first static images of the labyrinth magnetic domain structures will be presented, as well as the attempt at the soft X-ray time-resolved magnetic imaging at FEL.

Primary author: SOROKIN, Boris (PSI)

Co-authors: Dr AL HADDAD, Andre (PSI); RAABE, Jörg; Dr SCHNORR, Kirsten (PSI); Dr FINIZIO, Simone (PSI)

Presenter: SOROKIN, Boris (PSI)

Session Classification: Spintronics and Magnetism at the Nanoscale

Track Classification: Spintronics and Magnetism at the Nanoscale