



Contribution ID: 6

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Optimising Magnetic Switching

Friday, 16 September 2011 13:03 (2 minutes)

The main goals of this study are a systematic study and subsequent optimisation of microwave assisted magnetisation switching in magnetic structures. Stroboscopic time-resolved imaging of resonant magnetic eigenmodes and the detection of switching events are carried out with energy and polarisation dependent Scanning Transmission X-ray Microscopy at the PoLLux beamline of the Swiss Light Source (SLS). These provide quantitative information about the magnetic state and its time evolution. The investigation is concentrated on magnetic thin-film patterns with physical dimensions in the micron and deep sub-micron range. Samples have been fabricated at the Laboratory for Micro- and Nano-technology (LMN) at Paul Scherrer Institut. In a first step we are determining the eigenfrequencies as a function of the sample size and shape as well as the microwave power (CW) needed to induce switching. Following on from these initial results, we will investigate controlled and optimised switching using adequately shaped RF-pulses.

Please specify poster or talk

Poster

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Poster session 1

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