

High resolution neutron spin echo spectroscopy
Where do we come from?
Where do we go?

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In this lecture I will give an introduction and an overview of the development of high resolution neutron spin echo spectroscopy. Thereby I will emphasize different development steps and give experimental examples related to the different new design features. In particular I will address the development of the precession fields including the associated correction elements. I will discuss field compensation and the quest for highest resolution using superconducting technology at the SNS. The talk will address scientific examples out of the soft matter area. We will discuss the path to deeper knowledge in the field of polymer dynamics, where we will follow the different steps of experimental access related to the instrument developments. We will also address microemulsions and present first results on the domain dynamics of biopolymers. The presentation is aiming on a transparent elucidation of progress in high resolution NSE and its relation to technology developments and new and better ideas.