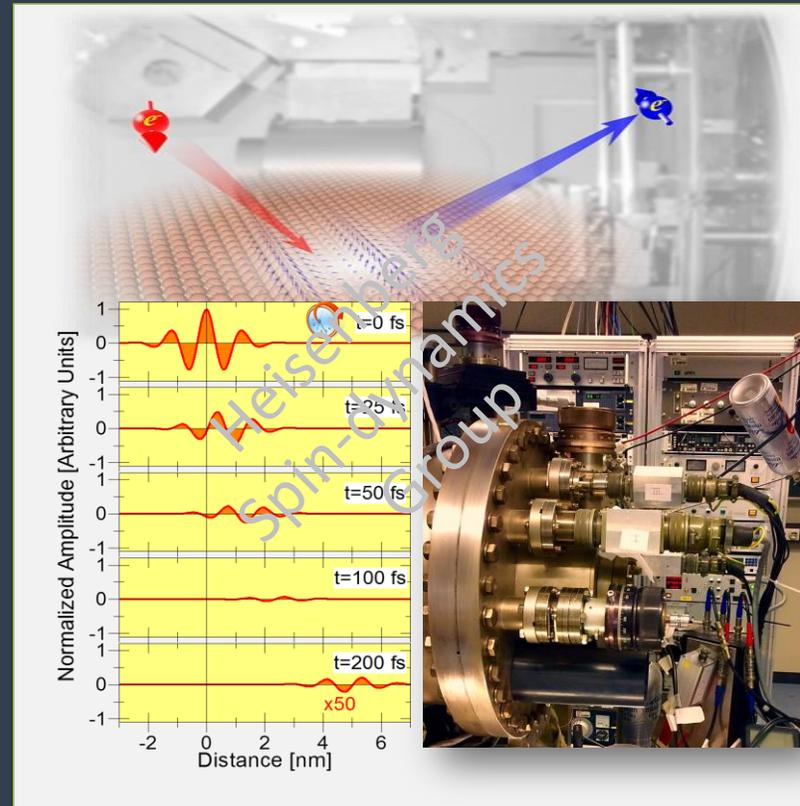


Spin excitations in ultrathin ferromagnetic films



Project description

Ultrathin magnetic films and multilayers possess novel properties that have had a major impact on the innovation of the information technology. Many static magnetic properties of this class of materials, which lead to their desired functionalities, are now well-known. Since the speed of operation is important for faster information processing, nowadays the magneto-electronic technology pushes toward high speed operation.



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Terahertz spin excitations can be probed by spin-polarized electron energy-loss spectroscopy. Our idea is to implement this technique to ultrathin films and multilayers having a complex magnetic ground state in order to understand ultrafast processes in these materials and to discover new and fundamentally interesting effects associated with terahertz spin excitations.