

## Symposium Attosecond and coherent spins: New frontiers (SYAS)

jointly organized by  
 the Magnetism Division (MA),  
 the Thin Films Division (DS),  
 the Semiconductor Physics Division (HL),  
 the Surface Science Division (O), and  
 the Low Temperature Physics Division (TT)

Markus Münzenberg  
 Universität Greifswald  
 Felix-Hausdorff-Str. 6  
 17489 Greifswald  
 markus.muenzenberg@uni-greifswald.de

Ulrich Nowak  
 Universität Konstanz  
 Universitätsstraße 10  
 78464 Konstanz  
 Ulrich.Nowak@uni-konstanz.de

Ultrafast magnetism, attosecond lasers and methods using x-ray pulses to explore structural dynamics are reaching new limits. This session is dedicated to new developments and recent major recent milestones, from hard x-ray bunches to attosecond pulses, breaking new frontiers and time records, towards the observation to study coherent spin processes. This phenomena is originating from coherent charge transfer, driven by a few cycle laser pulse, and is relevant for all materials and interfaces, from semiconductors, metals to molecules. Examples for these systems will be demonstrated.

## Overview of Invited Talks and Sessions

(Lecture hall HSZ 02)

### Invited Talks

SYAS 1.1	Mon	15:00–15:30	HSZ 02	<b>Ultrafast Coherent Spin-Lattice Interactions in Ferromagnets</b> — •STEVEN L. JOHNSON
SYAS 1.2	Mon	15:30–16:00	HSZ 02	<b>Ab-initio treatment of ultrafast spin-dynamics</b> — •SANGEETA SHARMA, J. K. DEWHURST
SYAS 1.3	Mon	16:00–16:30	HSZ 02	<b>Light-wave driven Spin Dynamics</b> — •MARTIN SCHULTZE, SANGEETA SHARMA, MARKUS MÜNZENBERG
SYAS 1.4	Mon	16:45–17:15	HSZ 02	<b>All-coherent subcycle switching of spins by THz near fields</b> — •CHRISTOPH LANGE
SYAS 1.5	Mon	17:15–17:45	HSZ 02	<b>Ultrafast optically-induced spin transfer in ferromagnetic alloys</b> — •STEFAN MATHIAS

### Sessions

SYAS 1.1–1.5	Mon	15:00–17:45	HSZ 02	<b>Attosecond and Coherent Spins: New Frontiers</b>
--------------	-----	-------------	--------	---