Progress in Nuclear Resonance Scattering: from Methods to Materials

Sunday

17:00 – 21:00	Registration	
from 18:30	Buffet supper	

Monday

07:45	breakfast	
08:30 – 08:35	Hermann	
08:35 – 08:50	Dreisigacker	
08:50 – 09:40	Shenoy	*Far out: Speculations on Future Performance Requirements for Mössbauer Spectroscopy*
09:40 – 10:20	Rüffer	*Progress in Applications to Nuclear Resonance Scattering*
10:20 – 10:45	coffee	
10:45 – 11:00	Hu	*Moments in nuclear resonant inelastic X-ray scattering and their applications*
11:00 – 11:40	Toellner	*Progress Toward Ultra-high-resolution monochromatization*
11:40 – 12:20	Sergeev	*Development and applications of monochromators for nuclear Transitions above 30 keV*
12:20 – 12:30	conference photo	
12:30 – 14:00	lunch	
14:00 – 14:40	Alp	*Mössbauer Microscope - Progress in Nuclear Resonance Scattering Based Imaging*
14:40 – 15:20	McCammon	*NRS Applications in Geophysics*
15:20 – 15:35	Bender Koch	*Authigenic clay formation following Fe-oxide reduction in a Fe-Si-C rich lake sediment*
15:35 – 15:50	Trekels	*Superconductivity-induced magnetic reorientation of Fe*
15:50 – 16:15	coffee	
16:15 – 16:55	Kobayashi	*Nuclear resonance scattering on iron based superconductors*
16:55 – 17:35	Ksenofontov	*^{57}Fe NIS studies of phonon DOS in FeSe-based superconductors*
17:35 – 18:15	Evers	*Exploring the non-linear and quantum world with nuclear resonance scattering*
18:15 – 18:30	Röhlsberger	*Electromagnetically Induced Transparency with Resonant Nuclei in a Cavity*
from 19:00	dinner	

Followed by a social evening at the invitation of the Wilhelm und Else-Heraeus-Stiftung in the “Bürgerstube” at the Physikzentrum.

Tuesday

07:45	breakfast	
08:30 – 09:10	Fultz	*Electron-Phonon Interactions in Iron-Vanadium Alloys*
09:10 – 09:50	Krisch	*Progress in Inelastic X-ray Scattering: New Opportunities in Materials Research?*
09:50 – 10:30	Houben	*Applications of nuclear inelastic scattering for Sb and Te based materials*
10:30 – 10:55	coffee	
10:55 – 11:35	Chumakov	*Atomic dynamics in glasses: The puzzle of the 'boson peak'*
11:35 – 11:50	Keune	*Site-Selective Phonon Spectra from the Interface of Epitaxial Fe(001)/InAs(001) Heterostructures*
11:50 – 12:30	Couet	*Study of interface coupling phenomena in layered hybrid systems*
12:30 – 12:45	Dubiel	*Lattice dynamics of α and σ phase Fe-Cr alloys as seen by ^{57}Fe NRIXS and theoretical calculations*
12:45 – 14:00	lunch	
14:00 – 14:40	Sage	*Resonant X-ray Absorption by ^{57}Fe: A Site-Selective Probe of Protein Structure and Elasticity*
14:40 – 15:20	Petrenko	*Nuclear Resonance Vibrational Spectroscopy as a new Dimension in Theoretical Spectroscopy: First-Principles Methodology and Applications*
15:20 – 15:35	Cramer	*Nitrogenase, Hydrogenase, and NRVS – New Spectroscopy of Old Intermediates*
15:35 – 16:15	Tuczek	*Spin state switching of transition-metal complexes in homogeneous solution and on surfaces: experimental and theoretical results*
From 16:15	coffee and poster session	
From 19:00	dinner	

Wednesday

07:45	breakfast	
08:30 – 09:10	Nagy	*Magnetism at the Surface and in thin Films: Phases, coupling, anisotropy and domain structure as seen by NRS*
09:10 – 09:50	Schlage	*Fabrication and Characterization of Patterned Iron Magnetic Nanostructures*
09:50 – 10:30	Stankov	*Lattice Dynamics of Lanthanides: Insights from In-Situ Nuclear Inelastic Scattering and First Principles Calculations*
10:30 – 10:55	coffee	
10:55 – 11:35	Roldan Cuenya	*Thermodynamic properties and atomic vibrational dynamics of ^{57}Fe nanoparticles: size effects*
11:35 – 12:15	Wortmann	*High-Pressure Studies of Magnetism and Lattice Dynamics in Rare-Earth Systems with Valence Instabilities by Nuclear Resonance Scattering*
12:15 – 12:30	Zhao	*Application of nuclear resonant scattering at high pressure and high temperature at 3-ID APS*
12:30 – 12:40	poster prize and farewell	
From 12:40	lunch	

End of seminar