

Symposium Interacting Degrees of Freedom in Ultrathin Quantum Films (SYQF)

jointly organised by
the Semiconductor Physics Division (HL),
the Thin Films Division (DS),
the Magnetism Division (MA), and
the Low Temperature Physics Division (TT)

Ursula Wurstbauer
Universität Münster
Wilhelm-Klemm-Straße 10
48149 Münster
wurstbauer@uni-muenster.de

Hubert Krenner
Universität Münster
Wilhelm-Klemm-Straße 10
48149 Münster
krenner@uni-muenster.de

Mirko Cinchetti
TU Dortmund
Otto-Hahn-Straße 4
44227 Dortmund
mirko.cinchetti@tu-dortmund.de

Understanding the interactions between different degrees of freedom and their associated low-energy excitations is crucial for comprehending the physical behavior of condensed matter systems. In atomically thin quantum films, reduced dimensionality and enhanced confinement lead to amplified or modified interactions, resulting in novel physical phenomena. This symposium provides an interdisciplinary platform to discuss recent advances in the field of coupled degrees of freedom in ultrathin materials, with contributions from both experimental and theoretical perspectives. Exploring these effects not only deepens our understanding of quantum nanomaterials but also paves the way for integrating systems with interacting degrees of freedom into next-generation electronic, optoelectronic, and quantum technologies.

Overview of Invited Talks and Sessions (Lecture hall HSZ/AUDI)

Invited Talks

SYQF 1.1	Fri	9:30–10:00	HSZ/AUDI	Exciton dressing by extreme nonlinear magnons in a layered semiconductor — •GEOFFREY M. DIEDERICH
SYQF 1.2	Fri	10:00–10:30	HSZ/AUDI	A tale of demons and decay in two-dimensional (alter)magnets — •ALEXANDER MOOK
SYQF 1.3	Fri	10:30–11:00	HSZ/AUDI	Magnetism, light and matter - Role of excitons in two-dimensional magnets — •FLORIAN DIRNBERGER
SYQF 1.4	Fri	11:15–11:45	HSZ/AUDI	Advantages and challenges of resonance Raman scattering with infrared excitation energy — •LEONETTA BALDASSARRE
SYQF 1.5	Fri	11:45–12:15	HSZ/AUDI	Shining light on 2D antiferromagnets — •DMYTRO AFANASIEV

Sessions

SYQF 1.1–1.5	Fri	9:30–12:15	HSZ/AUDI	Interacting Degrees of Freedom in Ultrathin Quantum Films
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