

Use of advanced seminars in the master's program (SPO 2023)

Verwendung von Hauptseminaren im Masterstudiengang (SPO 2015)

Stand: 26.02.2025

In the master's program in physics (SPO 2015 and SPO 2023), an advanced seminar (4 ECTS points) must be completed. This is either part of the major, the second major or the minor subject in physics. For this reason, it must fit thematically into one of these subjects. The following list contains an assignment of the advanced seminars to the subject areas.

The achievements will be recognized when registering for the subjects in the examination office upon presentation of a proof document (e.g. certificate/Schein or grade transcript). If you have any questions, please contact the examination board (Prüfungsausschuss).

Term	Title	Lecturer	CM	NP	OP	EPP	APP	TPP	CMT	TCAP
WS 2022/2023	Lichtoptische Nanoskopie	Nienhaus		x	x					
WS 2022/2023	Astroteilchenphysik	Drexlin					x			
WS 2022/2023	Topology in Condensed Matter Systems	Mirlin							x	
WS 2022/2023	Moderne Teilchenbeschleuniger und Forschung mit Photonen	A.-S. Müller	x		x	x	x			
WS 2022/2023	Virtuelles Materialdesign	Wenzel		x					x	
WS 2022/2023	Teilchenphysik	Husemann				x				
WS 2022/2023	Unraveling the Puzzle of Dark Matter	Schwetz					x	x		x
WS 2022/2023	Basisgrößen und Basiseinheiten: Nicht Raten - Messen!	Wulfhekel	x		x					
SS 2023	Konformationsdynamik in Biomolekülen: Experiment und Theorie	Nienhaus		x	x				x	
SS 2023	Aktuelle Experimente der Quantenphysik	Wernsdorfer	x	x						
SS 2023	Experimentelle und Theoretische Methoden der Teilchenphysik	Ferber				x		x		
SS 2023	Teilchenphysik jenseits des Standardmodells	Klute				x				
SS 2023	Neutronen- und Röntgenstrahlung in der Festkörperphysik	Baumbach	x							
SS 2023	Accelerators and Detectors - Future Technologies for Research and Medicine	A.-S. Müller				x	x			
SS 2023	Astroteilchenphysik und Kosmologie	Drexlin					x			
SS 2023	Phenomena of the Quantum World	Garst							x	
SS 2023	Flavourphysik	Blanke						x		
SS 2023	The Matter Puzzle - Baryon Asymmetry, Dark Matter and Particle Physics	Mühleitner						x		x
WS 2023/24	Astroparticle Physics	Drexlin					x			
WS 2023/24	Virtual Design of Materials	Wenzel		x					x	
WS 2023/24	Particle Physics	Husemann				x				
WS 2023/24	Modern Particle Accelerators and Research with Photons	A.-S. Müller	x		x	x	x			
WS 2023/24	Quantum Mechanics: Selected Chapters	Eder						x	x	
SS 2024	Conformational Dynamics in Biomolecules	Nienhaus		x	x					x
SS 2024	Recent Experiments in Quantum Physics	Hunger	x	x						
SS 2024	Accelerators and Detectors - Future Technologies for Research and Medicine	A.-S. Müller				x	x			
SS 2024	Astroparticle Physics and Cosmology	Drexlin					x			
SS 2024	Particle Physics Beyond the Standard Model	Klute				x				
SS 2024	Virtual Design of Materials	Wenzel		x					x	
SS 2024	Neutrons and X-rays in Solid State Physics	Baumbach	x							
SS 2024	Advanced Quantum Mechanics: Fundamentals and Technology	Garst						x	x	
SS 2024	The Dark Universe	Kahlhöfer					x	x		x
SS 2024	Flavour Physics	Nierste						x		
SS 2024	Experimental and Theoretical Methods in Particle Physics	Quast				x		x		
WS 2024/25	Light-optical Nanoscopy	Nienhaus		x	x					
WS 2024/25	Particle Physics	Husemann				x				
WS 2024/25	Astroparticle Physics	Drexlin					x			
WS 2024/25	Virtual Materials Design	Wenzel		x					x	
WS 2024/25	Flavour Physics	Nierste						x		
WS 2024/25	Modern Accelerators and Research with Photons	A.-S. Müller	x		x	x	x			
WS 2024/25	Nanophotonics	Rockstuhl		x	x					x
WS 2024/25	Quantum Science at the Atomic Scale: Advanced Scanning Probe Techniques	Willke	x	x						
WS 2024/25	Topology in Quantum Condensed Matter Physics	Gornyi								x
WS 2024/25	Theoretical Challenges in Precision Standard Model Physics	Melnikov						x		
SS 2025	Conformational Dynamics in Biomolecules	Nienhaus		x	x					x
SS 2025	Nano-Optics	Naber		x	x					
SS 2025	Recent Experiments in Quantum Physics	Wernsdorfer	x	x						
SS 2025	Accelerators and Detectors - Future Technologies for Research and Medicine	A.-S. Müller				x	x			
SS 2025	Astroparticle Physics and Cosmology	Engel					x			
SS 2025	Astroparticle Physics - Modern Experiments	Drexlin					x			
SS 2025	Particle Physics Beyond the Standard Model	Klute				x				
SS 2025	Virtual Materials Design	Wenzel		x						x
SS 2025	Physics beyond the Standard Model	Nierste						x		
SS 2025	Experimental and Theoretical Methods in Particle Physics	Quast				x		x		
SS 2025	Neutrons and X-rays in Solid State Physics	Baumbach	x							
SS 2025	Physics of Electrons in a Magnetic Field: Quantum Hall Effects	Garst								x
SS 2025	Gravitational Waves and Black Holes - Selected Topics	Schwetz-Mangold						x		x

Abbreviations / Abkürzungen:

CM	Condensed Matter / Kondensierte Materie (Exp)
NP	Nanophysics / Nanophysik (Exp/Th)
OP	Optics and Photonics / Optik und Photonik (Exp/Th)
EPP	Experimental Particle Physics / Teilchenphysik (Exp)
APP	Astroparticle Physics / Astroteilchenphysik (Exp)
TPP	Theoretical Particle Physics / Theoretische Teilchenphysik (Th)
CMT	Condensed Matter Theory / Theorie der Kondensierten Materie (Th)
TCAP	Theoretical Cosmology and Astroparticle Physics (Th)