

Theoretical and Mathematical Physics Division

Fachverband Theoretische und Mathematische Grundlagen der Physik (MP)

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Overview of Invited Talks and Sessions

(Lecture halls ZHG001 and ZHG002; Poster ZHG Foyer 1. OG)

Invited Talks

MP 2.1	Tue	13:45–14:15	ZHG001	Mathematics of moire materials — •SIMON BECKER
MP 2.2	Tue	14:15–14:45	ZHG001	Approaches to Discrete Holography — •RENÉ MEYER, PABLO BASTEIRO, GIUSEPPE DI GIULIO, JOHANNA ERDMENGER, ZHUOYU XIAN, JONATHAN KARL, ET. AL.
MP 4.1	Wed	11:00–11:30	ZHG001	Focusing dynamics for 2d Bose gases in the instability regime — •LEA BOSSMANN
MP 7.1	Wed	16:15–16:45	ZHG001	How the “gauge principle” derives from physical principles — •KARL-HENNING REHREN
MP 7.5	Wed	17:45–18:15	ZHG001	A BPS Road to Holography: Decoupling Limits and Non-Lorentzian Geometries — •NIELS OBERS
MP 10.1	Thu	14:00–14:30	ZHG001	Quantum field theory, quantum reference frames and the type of local algebras — •CHRISTOPHER FEWSTER

Invited Talks of the joint Symposium SMuK Dissertation Prize 2025 (SYMD)

See SYMD for the full program of the symposium.

SYMD 1.1	Mon	14:15–14:45	ZHG011	Fluid-dynamic description of heavy-quark diffusion in the quark-gluon plasma — •FEDERICA CAPELLINO
SYMD 1.2	Mon	14:45–15:15	ZHG011	Fast and faithful effective-one-body models for gravitational waves from generic compact binaries — •ROSSELLA GAMBA
SYMD 1.3	Mon	15:15–15:45	ZHG011	Nuclear Structure Near Doubly Magic Nuclei — •LUKAS NIES
SYMD 1.4	Mon	15:45–16:15	ZHG011	Optimisation strategies for proton acceleration from thin foils with petawatt ultrashort pulse lasers — •TIM ZIEGLER

Invited Talks of the joint Symposium Quantum Mechanics and Gravity: Current Status (SYDK)

See SYDK for the full program of the symposium.

SYDK 1.1	Thu	10:45–11:15	ZHG008	String Theory at the Edges of Relativity — •NIELS OBERS
SYDK 1.2	Thu	11:15–11:45	ZHG008	The Quantum Einstein Equations in Loop Quantum Gravity — •KRISTINA GIESEL
SYDK 1.3	Thu	11:45–12:15	ZHG008	Causal Dynamical Triangulations: Lattice quantum gravity reloaded — •RENATE LOLL
SYDK 1.4	Thu	12:15–12:45	ZHG008	Taming Quantum Gravity: insights from Asymptotic Safety — •ALESSIA PLATANIA

Sessions

MP 1.1–1.4	Mon	16:45–18:05	ZHG001	Quantum Mechanics
MP 2.1–2.5	Tue	13:45–15:45	ZHG001	Mathematical Materials Science and AdS/CFT
MP 3.1–3.4	Tue	16:15–17:35	ZHG001	Particle Physics and AdS/CFT
MP 4.1–4.4	Wed	11:00–12:30	ZHG001	Dynamics and Chaotic Behaviour

MP 5.1–5.3	Wed	13:45–14:45	ZHG001	Theory of Machine Learning (joint session MP/AKPIK)
MP 6	Wed	14:45–15:45	ZHG001	Members' Assembly
MP 7.1–7.5	Wed	16:15–18:15	ZHG001	Quantum Field Theory I and Conformal Field Theory
MP 8.1–8.4	Wed	16:15–17:35	ZHG002	Waves, Relativity and Quantization
MP 9.1–9.4	Wed	16:15–18:15	ZHG Foyer 1. OG	Poster Session: Many-body Theory
MP 10.1–10.4	Thu	14:00–15:30	ZHG001	Operator Algebras
MP 11.1–11.3	Thu	16:15–17:15	ZHG001	Quantum Field Theory II
MP 12.1–12.4	Thu	16:15–17:35	ZHG002	Concepts of Physics

Members' Assembly of the Theoretical and Mathematical Physics Division

Wednesday 14:45 - 15:45 ZHG001

- Bericht und Planung
- Aussprache
- Wahl des/der Sprecher:in
- Wahl der Beiratsmitglieder
- Verschiedenes