

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 MP-H4 and MP-H5)

Plenary Talk of MP

PV V Wed 9:45–10:30 Audimax **Quantum gravity, chaos, statistical physics and wormholes** — ●JAN DE BOER

Invited Talks

MP 1.1 Mon 9:30–10:00 MP-H5 **Long-range entanglement and the split property** — ●PIETER NAAIJKENS, YOSHIKO OGATA
 MP 1.2 Mon 10:00–10:30 MP-H5 **Symmetry-resolved quantum information measures for AdS gravity and beyond** — ●RENÉ MEYER, SUTING ZHAO, CHRISTIAN NORTHE, KONSTANTIN WEISENBERGER
 MP 1.3 Mon 10:30–11:00 MP-H5 **Rapid thermalization of spin chain commuting Hamiltonians** — ●ANGELA CAPEL
 MP 2.1 Mon 16:15–16:45 MP-H5 **The Page curve from quantum error correction** — ●DANIEL HARLOW
 MP 2.2 Mon 16:45–17:15 MP-H5 **Classical black hole scattering from a worldline quantum field theory** — ●JAN PLEFKA
 MP 3.1 Tue 11:00–11:30 MP-H5 **Dualities and categorical symmetries in quantum spin chains** — ●FRANK VERSTRAETE
 MP 3.2 Tue 11:30–12:00 MP-H5 **Functional Integral and Stochastic Representations for Bosonic Ensembles** — ●MANFRED SALMHOFER
 MP 3.3 Tue 12:00–12:30 MP-H5 **Color-Flavor Transformation Revisited** — ●MARTIN ZIRNBAUER
 MP 5.1 Wed 11:00–11:30 MP-H5 **Falling through masses in superposition: quantum reference frames for indefinite metrics** — ANNE-CATHERINE DE LA HAMETTE, VIKTORIA KABEL, ESTEBAN CASTRO-RUIZ, ●CASLAV BRUKNER
 MP 6.1 Wed 16:15–16:45 MP-H5 **State sum models with defects** — ●CATHERINE MEUSBURGER
 MP 9.1 Thu 11:00–11:30 MP-H5 **Reduced phase space quantisation in Loop quantum gravity and loop quantum cosmology** — ●KRISTINA GIESEL, BAO-FEI LI, PARAMPREET SINGH
 MP 9.2 Thu 11:30–12:00 MP-H5 **Quantum fields propagating on curved backgrounds and their influence on spacetime curvature** — ●NICOLA PINAMONTI

Invited Talks of the joint symposium SMuK Dissertation Prize 2022 (SYMD)

See SYMD for the full program of the symposium.

SYMD 1.1 Mon 14:00–14:25 Audimax **Timeless Quantum Mechanics and the Early Universe** — ●LEONARDO CHATAIGNER
 SYMD 1.2 Mon 14:25–14:50 Audimax **First tritium β -decay spectrum recorded with Cyclotron Radiation Emission Spectroscopy (CRES)** — ●CHRISTINE CLAESSENS
 SYMD 1.3 Mon 14:50–15:15 Audimax **Watching the top quark mass run - for the first time!** — ●MATTEO M. DEFRANCHIS, KATERINA LIPKA, SVEN-OLAF MOCH
 SYMD 1.4 Mon 15:15–15:40 Audimax **Towards beam-quality-preserving plasma accelerators: On the precision tuning of the wakefield** — ●SARAH SCHRÖDER

Invited Talks of the joint symposium The Nature of Science (SYNS)

See SYNS for the full program of the symposium.

SYNS 1.1	Tue	14:00–14:30	Audimax	The Role of Nature of Science Education for Science Media Literacy — •DIETMAR HÖTTECKE
SYNS 1.2	Tue	14:30–15:00	Audimax	What kinds of identities are deemed in/our of place in physics? — •LUCY AVRAAMIDOU
SYNS 1.3	Tue	15:00–15:30	Audimax	Some thoughts on the status of theoretical physics — •DANIEL HARLOW

Prize Talks of the joint Awards Symposium (SYAW)

See SYAW for the full program of the symposium.

SYAW 1.1	Wed	14:10–14:40	Audimax	Wie überprüft man die Ziele der Lehramtsausbildung Physik? — •HORST SCHECKER
SYAW 1.2	Wed	14:40–15:10	Audimax	Astronomy at Highest Angular Resolution - Adaptive Optics, Interferometry and Black Holes — •FRANK EISENHAUER
SYAW 1.3	Wed	15:10–15:40	Audimax	Turbulence in one dimension — •ALEXANDER M. POLYAKOV

Sessions

MP 1.1–1.3	Mon	9:30–11:00	MP-H5	Entanglement; Thermalization
MP 2.1–2.6	Mon	16:15–18:35	MP-H5	Gravity, Amplitudes, AdS/CFT
MP 3.1–3.3	Tue	11:00–12:30	MP-H5	Quantum dynamics
MP 4.1–4.7	Tue	16:15–18:35	MP-H5	Quantum field theory, AdS/CFT, non-equilibrium and quantum dynamics
MP 5.1–5.4	Wed	11:00–12:30	MP-H5	Quantum information
MP 6.1–6.1	Wed	16:15–16:45	MP-H5	Mathematical physics
MP 7.1–7.6	Wed	16:45–18:45	MP-H5	Quantum field theory
MP 8.1–8.3	Wed	17:25–18:25	MP-H6	Alternative approaches
MP 9.1–9.4	Thu	11:00–12:40	MP-H5	Quantum gravity (joint session MP/GR)
MP 10.1–10.3	Thu	16:15–17:15	MP-H5	Classical and quantum gravity
MP 11.1–11.5	Thu	16:35–18:15	MP-H6	Thermodynamics and fundamental aspects of field theory
MP 12.1–12.3	Thu	17:15–18:15	MP-H5	Quantum field theory for particle physics and plasmas
MP 13	Thu	19:30–20:30	MP-MV	Annual General Meeting

Annual General Meeting of the Theoretical and Mathematical Physics Division

Thursday 19:30–20:30 MP-MV