

SCHEDULE

MONDAY

- 08:30–09:30 Registration at the room of your first course
- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch
- 14:00–17:00 Afternoon lectures
- 17:30–18:30 Additional lecture

TUESDAY

- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch
- 14:00–17:00 Afternoon lectures
- 17:15– ... Student Representatives' Welcome

WEDNESDAY

- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch
- 14:00–17:00 Afternoon lectures

THURSDAY

- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch
- 14:00–17:00 Afternoon lectures
- 17:30–18:30 Hans Jensen Invited Lecture

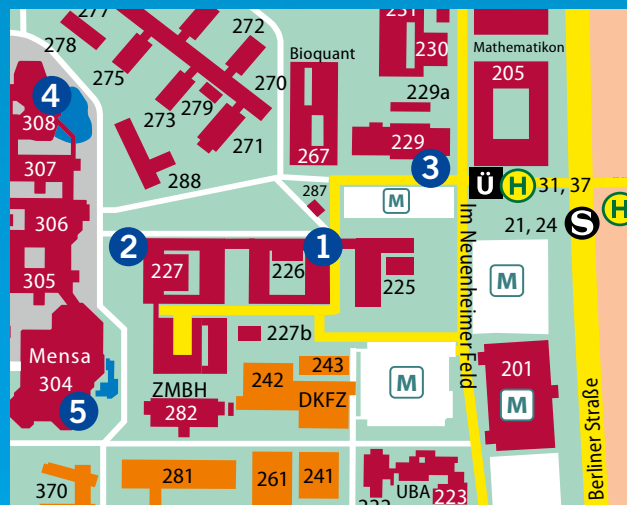
FRIDAY

- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch
- 14:00–17:00 Afternoon lectures

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MAP



- »Physikalisches Institut«, INF 226
- »Kirchhoff-Institut für Physik«, INF 227
- »Institut für Umweltp Physik«, INF 229
- »Hörsäle Physik«, INF 308
- »Mensa«, INF 304

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COMPOSITION AND GRAPHIC DESIGN: ANNE HEINZELMANN

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UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

45th HEIDELBERG PHYSICS GRADUATE DAYS

October 5–9, 2020

AT THE DEPARTMENT OF PHYSICS AND ASTRONOMY

PROGRAMME

SUPPORTED BY:



STRUCTURES
CLUSTER OF
EXCELLENCE



Center for
Quantum Dynamics



MAX-PLANCK-INSTITUT
FÜR KERNPHYSIK

d fine



Baden-Württemberg

MINISTERIUM FÜR WISSENSCHAFT, FORSCHUNG UND KUNST

Finanziert vom Ministerium für Wissenschaft, Forschung und Kunst Baden-Württemberg
im Rahmen der Nachhaltigkeitsfinanzierung der Projekte der Exzellenzinitiative II

PROGRAMME

MORNING COURSES (9:30–12:30)

MODERN GALACTIC DYNAMICS IN THE ERA OF
PLENTIFUL DATA

Eugene Vasiliev, University of Cambridge
INF 226 K1/2/3 AND ONLINE

ASYMPTOTIC SAFETY IN PARTICLE PHYSICS
AND QUANTUM GRAVITY

Manuel Reichert, University of Southern Denmark, Odense
INF 308 HS2 AND ONLINE

BATTERIES – FROM THE BASIC CONCEPT THROUGH THE
PRESENT SYSTEM TO FUTURE APPLICATIONS

Karin Kleiner, University of Münster
INF 308 HS1 AND ONLINE

FIELD THEORY OF DISSIPATIVE QUANTUM SYSTEMS

Jamir Marino, Johannes Gutenberg University Mainz
INF 227 HS2 AND ONLINE

NEUTRINO ASTROPHYSICS AND ASTRONOMY

Irene Tamborra, University of Copenhagen *ONLINE ONLY*

THE PHYSICAL BASIS OF CLIMATE CHANGE

André Butz, Heidelberg University
INF 227 HS1 AND ONLINE

AFTERNOON COURSES (14:00–17:00)

PHOTOVOLTAICS AND THE RENEWABLE TRANSFORMATION
OF OUR ENERGY SYSTEM

Eicke R. Weber, University of California, Berkeley
Hans-Martin Henning, Lara Theiss, Fraunhofer ISE, Freiburg
INF 308 HS1 AND ONLINE

AN INTRODUCTION TO GRAVITATIONAL-WAVE ASTROPHYSICS

Pau Amaro Seoane, Universitat Politècnica de València
ONLINE ONLY

QUANTUM INFORMATION PROCESSING WITH
SUPERCONDUCTING CIRCUITS

Ioan Pop, KIT – Karlsruhe Institute of Technology
INF 227 HS1 AND ONLINE

THE HOMOLOGY OF DATA

Nina Otter, UCLA – University of California, Los Angeles
ONLINE ONLY

THE PROTON, THE LEPTOQUARK, AND THE GRAVITON:
SUBSTRUCTURE AND DISCOVERIES

Axel Maas, University of Graz
INF 226 K1/2/3 AND ONLINE

WHEN SMART MATTERS: BRINGING DIGITAL TECHNOLOGIES
TO LIFE IN INDUSTRY AND FINANCE

Team d-fine, d-fine, Frankfurt am Main *ONLINE ONLY*

ADDITIONAL LECTURE (MONDAY, 17:30-18:30)

FROM REUTLINGEN TO SPACE
Lisa Haas, Robert Bosch GmbH Reutlingen
INF 308 HS1 AND ONLINE

STUDENT REPRESENTATIVES' WELCOME (TUESDAY, 17:15–...)

INF 226 K1/2/3 AND ONLINE

HANS JENSEN INVITED LECTURE (THURSDAY, 17:30–18:30)

TOPOLOGICAL INSULATORS: A NEW STATE OF MATTER
Laurens Molenkamp, University of Würzburg
INF 308 HS1 AND ONLINE

BREAKS

COFFEE BREAKS (AROUND 11:00 AND 15:30)

»MENSA AREA B«, INF 304

LUNCH BREAK (12:30–13:30)

»MENSA AREA B«, INF 304

LEGEND

INF 226 K1/2/3	»Konferenz 1/2/3« Room 00.101–00.103 »Physikalisches Institut« Ground floor
INF 227 HS1	»Großer Hörsaal« Kirchhoff Institute for Physics Ground floor
INF 227 HS2	»Kleiner Hörsaal« Kirchhoff Institute for Physics Ground floor
INF 308 HS1	»Hörsaalgebäude Physik« Ground floor
INF 308 HS2	»Hörsaalgebäude Physik« Ground floor

REGISTRATION

All participants are requested to register at the desk at the first lecture room before entering.

For general questions, please come to the desk at INF 226.

Make the Grad Days safe – bring your mask, observe distancing regulations, see <https://www.uni-heidelberg.de/en/newsroom/information-about-coronavirus>

NOTE

Please note that attendance is restricted.

All registered participants will be given more info in the week prior to the Grad Days, in particular the online details.