



40th HEIDELBERG PHYSICS GRADUATE DAYS

APRIL 9–13, 2018

AT THE DEPARTMENT OF PHYSICS AND ASTRONOMY



UNIVERSITÄT
HEIDELBERG

ZUKUNFT
SEIT 1386

Courses are conceived for advanced students in physics, in particular for doctoral, masters or diploma students. The goal of the lecture series is to expand the general knowledge of students and to deepen their understanding of special topics and methods. Each course runs every day for five days either in a morning or afternoon slot.

MORNING COURSES MONDAY TO FRIDAY, 9:30–12:30

COLLISION PHENOMENA AT ULTRA-LOW ENERGIES
Jook Walraven, University of Amsterdam

CONFORMAL QUANTUM FIELD THEORY
Karl-Henning Rehren, Göttingen University

PHYSICS AND CHEMISTRY OF THE HEAVIEST ELEMENTS
Michael Block, Christoph Düllmann,
GSI and Johannes Gutenberg University Mainz

NUMERICAL METHODS FOR COSMOLOGY: FROM EARLY TO LATE TIMES
Francesco Pace, University of Manchester

ADVANCED TOPICS IN MODIFIED GRAVITY
Lavinia Heisenberg, ETH Zürich

MODERN SILICON SENSORS FOR
PARTICLE PHYSICS EXPERIMENTS
Ivan Peric, Karlsruhe Institute of Technology (KIT)



AFTERNOON COURSES MONDAY TO FRIDAY, 14:00–17:00

PT-SYMMETRIC QUANTUM MECHANICS
Carl Bender, Washington University in St. Louis

EXPLORING STRONG GRAVITY WITH ACCRETING BLACK HOLES
Jason Dexter, Max Planck Institute for Extraterrestrial Physics,
Garching

SEARCHING FOR NEW PHYSICS AT THE INTENSITY FRONTIER
Niklaus Berger, Johannes Gutenberg University Mainz

PHENOMENOLOGY OF NEUTRINO OSCILLATIONS
Evgeny Akhmedov, Max-Planck-Institut für Kernphysik

PHYSICS AND CHEMISTRY OF SMALL-SCALE AIR-SEA
INTERACTIONS
Bernd Jähne, Interdisciplinary Center for Scientific Computing (IWR)

ANALYZING PERSONAL POTENTIAL FOR YOUR CAREER
Ute Leidig, Heidelberg University

ADDITIONAL LECTURE MONDAY, APRIL 9, 2018, 17:30

SHAPING THE FUTURE WITH SAP LEONARDO MACHINE LEARNING
Klaus Schimmer, Engelbert Quack, SAP SE, Walldorf

FOLLOWED BY A **GENERAL WELCOME PARTY**

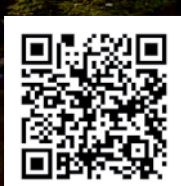
For registration and further information, see
<http://gsfp.physi.uni-heidelberg.de/graddays>

STUDENT REPRESENTATIVES' WELCOME TUESDAY, APRIL 10, 2018, 17:15

HANS JENSEN INVITED LECTURE
THURSDAY, APRIL 12, 2018, 17:30

SYMMETRY, TOPOLOGY AND ELECTRONIC PHASES OF MATTER
Charles Kane, University of Pennsylvania

FOLLOWED BY THE **D-FINE BARBECUE**



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of the Heidelberg Graduate
School of Fundamental Physics,
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Center for
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