



43rd HEIDELBERG PHYSICS GRADUATE DAYS

OCTOBER 7–11, 2019

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

NEW INSIGHTS IN STRONGLY CORRELATED SYSTEMS FROM
ULTRACOLD QUANTUM GASES

Michael Knap, Fabian Grusdt, TU München

FORMATION OF PLANETARY SYSTEMS: SOLAR AND EXTRASOLAR

Wilhelm Kley, University of Tübingen

HIGH-PRECISION TESTS OF QUANTUM ELECTRODYNAMICS

Zoltán Harman, Florian Köhler-Langes, Max-Planck-Institut für Kernphysik

MODERN BAYESIAN INFERENCE FOR MACHINE LEARNING

Melih Kandemir, Bosch Center for AI

SOFT, ACTIVE AND LIVING MATTER

Benno Liebchen, TU Darmstadt

ATMOSPHERIC OXYGEN: USEFUL FOR MORE THAN
JUST BREATHING

Penelope Pickers, University of East Anglia and Heidelberg University

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

SUPERCONDUCTIVITY - FUNDAMENTALS AND RECENT ADVANCES

Reinhold Kleiner, University of Tübingen

THE MULTI-MESSENGER HUNT FOR COSMIC PARTICLE
ACCELERATORS

Jim Hinton, Harm Schoorlemmer, Max-Planck-Institut für Kernphysik

RECONSTRUCTION, MODELING AND FUTURE IMPLICATIONS
OF CHANGES IN PAST CLIMATE VARIABILITY

Kira Rehfeld, Heidelberg University

CLASSICAL AND QUANTUM DYNAMICAL SYSTEMS

Sandro Wimberger, Università di Parma

CONSULTING IN THE DIGITAL ECONOMY – FROM PROOF-OF-CONCEPT
TO OPERATIONAL USE CASES

Team d-fine, d-fine, Frankfurt am Main

ADDITIONAL LECTURE

MONDAY, OCTOBER 7, 2019, 17:30

FROM REUTLINGEN TO SPACE

Lisa Haas, Robert Bosch GmbH Reutlingen

FOLLOWED BY A **GENERAL WELCOME PARTY**

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

STUDENT REPRESENTATIVES' WELCOME

TUESDAY, OCTOBER 8, 2019, 17:15

HANS JENSEN INVITED LECTURE

THURSDAY, OCTOBER 10, 2019, 17:30

THE COMPLEXITY FRONTIER

Brice Ménard, Johns Hopkins University

FOLLOWED BY THE **D-FINE BARBECUE**



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