

39th HEIDELBERG PHYSICS GRADUATE DAYS OCTOBER 9–13, 2017 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

QUANTUM NONLOCALITY AND GENERAL PROBABILISTIC THEORIES **Markus Müller,** IQOQI, Institute for Quantum Optics and Quantum Information, Vienna

ASTROSEISMOLOGY Saskia Hekker, Max Planck Institute for Solar System Research, Göttingen

PRECISION PHYSICS WITH ANTIMATTER Christian Smorra, Andreas Mooser, CERN, Geneva

FUNDAMENTAL QUANTUM STRUCTURE OF SPACETIME Astrid Eichhorn, Heidelberg University

PRESENTING RESEARCH RESULTS **Ute Leidig**, Heidelberg University

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

THE THEORY OF COSMIC INFLATION Enrico Pajer, Utrecht University

SUPERCONDUCTING QUANTUM COMPUTERS: EXPERIMENTAL BASICS AND STATE OF THE ART **Jürgen Lisenfeld,** Karlsruhe Institute of Technology (KIT)

THE SECRET LIVES OF CLOUDS: THE ROLE OF CLOUDS FOR CLIMATE, WEATHER AND AIR QUALITY **Thomas Leisner,** Karlsruhe Institute of Technology (KIT), **Ulrich Platt,** Heidelberg University

ACTIVE MATTER: PATTERN FORMATION AND COLLECTIVE PHENOMENA IN BIOLOGICAL SYSTEMS **Falko Ziebert,** Heidelberg University

DETECTORS FOR PARTICLE TRACKING AND IDENTIFICATION Silvia Masciocchi, GSI, Darmstadt

DATA SCIENCE IN RISK, FINANCE AND BEYOND **Team d-fine,** d-fine, Frankfurt am Main

ADDITIONAL LECTURE

STUDENT REPRESENTATIVES' WELCOME

MONDAY, OCTOBER 9, 2017, 17:30

ENTERING THE NEXT DIMENSION IN DIGITAL INSPECTION Christof Reinhart, Volume Graphics, Heidelberg

FOLLOWED BY A GENERAL WELCOME PARTY

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

TUESDAY, OCTOBER 10, 2017, 17:15

HANS JENSEN INVITED LECTURE THURSDAY, OCTOBER 12, 2017, 17:30

GRAVITATIONAL WAVES, BLACK HOLES, DARK MATTER, AND THE EARLY UNIVERSE **Marc Kamionkowski**, Johns Hopkins University, Baltimore

FOLLOWED BY THE **D-FINE BARBECUE**



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