



46th HEIDELBERG PHYSICS GRADUATE DAYS

APRIL 6 – 9, 2021

AT THE DEPARTMENT OF PHYSICS AND ASTRONOMY



UNIVERSITÄT
HEIDELBERG

ZUKUNFT
SEIT 1386

Courses are conceived for advanced students in physics, in particular for doctoral or masters 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 four days either in a morning or afternoon slot.

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

THE LARGE HADRON COLLIDER: A NEW ERA OF PARTICLE PHYSICS AT THE ENERGY FRONTIER

Karsten Köneke, University of Freiburg

FUNDAMENTAL PHYSICS WITH GRAVITATIONAL WAVES

Kai Schmitz, CERN

SOFT MATTER MEETS ULTRAFAST SPECTROSCOPY

Laura Cattaneo, Max Planck Institute for Nuclear Physics

FIGHTING CANCER WITH PHYSICS – A JOURNEY THROUGH THE FIELD OF PARTICLE THERAPY

Julia Bauer, Heidelberg University Hospital

UNDERSTANDING THE CLIMATE CRISIS AND THE REQUIREMENTS FOR ITS SOLUTION

Werner Aeschbach, Heidelberg University

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

PRECISION EXPERIMENTS WITH COOLED AND STORED EXOTIC IONS

Tommi Eronen, University of Jyväskylä

THE EPOCH OF REIONIZATION OF THE UNIVERSE. UNDERSTANDING GALAXY EVOLUTION AND THE UNIVERSE FROM ITS LAST PHASE TRANSITION

Fred Davies, Max Planck Institute for Astronomy

INTRODUCTION TO THE ADS/CFT DUALITY – FROM STRINGS & BLACK HOLES TO QUANTUM FIELD THEORIES AND BACK

Martin Ammon, University of Jena

FROM BAYES TO MACHINE LEARNING

Roberto Trotta, Imperial College London

GEOMETRIC ALGEBRA FOR PHYSICISTS

Maarten DeKieviet, Heidelberg University

INDUSTRIAL APPLICATIONS OF QUANTUM COMPUTING

Henning Soller, McKinsey and Heidelberg University

ADDITIONAL LECTURE

TUESDAY, APRIL 6, 2021, 17:30

ENTROPY PHENOMENA IN SOFTWARE PROJECTS AND LARGE ORGANIZATIONS

Jan-Markus Schwindt, SAP SE, Walldorf

STUDENT REPRESENTATIVES' WELCOME

WEDNESDAY, APRIL 7, 2021, 17:15

HANS JENSEN INVITED LECTURE

THURSDAY, APRIL 8, 2021, 17:30

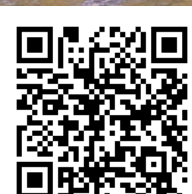
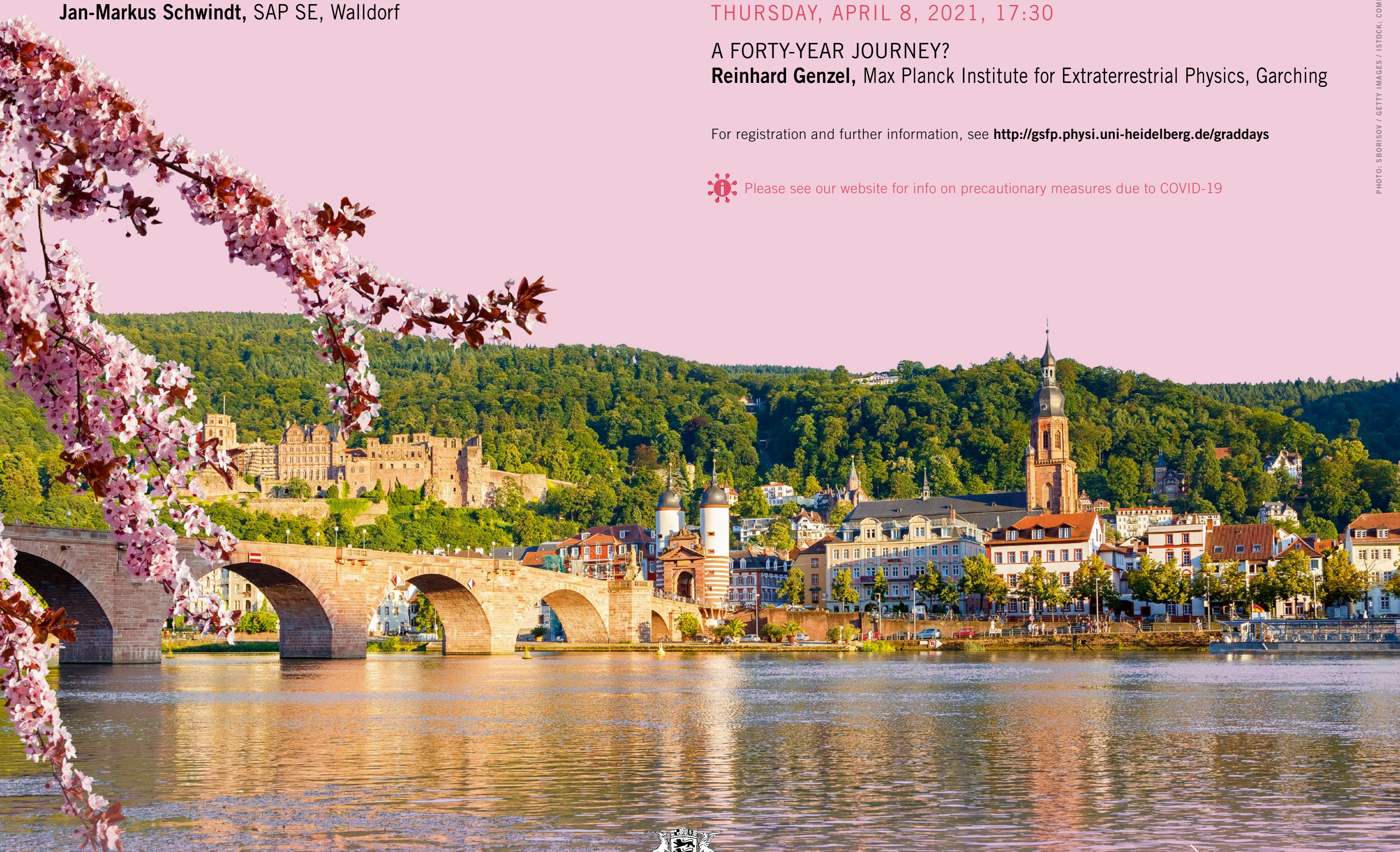
A FORTY-YEAR JOURNEY?

Reinhard Genzel, Max Planck Institute for Extraterrestrial Physics, Garching

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



Please see our website for info on precautionary measures due to COVID-19



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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



Center for
Quantum Dynamics



MAX-PLANCK-INSTITUT
FÜR KERNPHYSIK

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