

HGSP

Heidelberg Graduate School  
of Fundamental Physics



# XXVII HEIDELBERG PHYSICS GRADUATE DAYS 04. October – 07. October 2011

at the Department of Physics and Astronomy of Heidelberg University

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 four days either in a morning or afternoon slot.

## Morning Courses | Tuesday to Friday | 9:30-12:30

- »FLAVORFUL MATTER – WHY NOT?« ..... Gudrun Hiller, University of Dortmund
- »INTRODUCTION TO N=2 SUPERSYMMETRIC GAUGE THEORIES« ..... Wolfgang Lerche, CERN, Geneva
- »QUANTUM CHAOS APPLICATIONS: FROM SIMPLE MODELS  
TO QUANTUM COMPUTERS AND GOOGLE MATRIX« ..... Dima Shepelyansky, University of Toulouse
- »PHYSICS OF ION TRAPS – HIGH-PRECISION EXPERIMENTS WITH  
STORED AND COOLED EXOTIC IONS IN PENNING TRAPS« ..... Klaus Blaum, MPI for  
Nuclear Physics, Heidelberg
- »AN INTRODUCTION TO THE SAFETY OF NUCLEAR POWER PLANTS« ..... Harald Dimmelmeier, AREVA
- »BASIC PRINCIPLES OF TEACHING AT UNIVERSITY LEVEL« ..... Ute Leidig, Heidelberg University

## Afternoon Courses | Tuesday to Friday | 14:00-17:00

- »THE EARLY UNIVERSE AND INFLATION« ..... Thorsten Battefeld, University of Göttingen
- »STRUCTURE AND DYNAMICS OF SOFT MATTER« ..... Klaus Kroy, University of Leipzig
- »BOSE-EINSTEIN CONDENSATES: AN IDEAL LABORATORY  
FOR THEORETICAL MANY-BODY PHYSICS« ..... Ofir Alon, University of Haifa
- »INTRODUCTION TO PARTICLE ACCELERATORS,  
SYNCHROTRON RADIATION AND FREE-ELECTRON LASERS« ..... Shaukat Khan, University of Dortmund
- »TUMOR THERAPY WITH ION BEAMS« ..... Gerhard Kraft, GSI, Darmstadt
- »D-FINE ON FINANCE« ..... d-fine, Frankfurt am Main

## Additional Lecture | Tuesday, 04.10.2011 | 17:30

- »HOW DOES OIL MOVE THROUGH ROCK?« ..... Steffen Berg, Royal Dutch Shell  
followed by a general welcome party

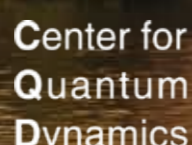
## Student Representatives' Welcome and Information Evening for new doctoral students | Wednesday, 05.10.2011 | 17:00

Raoul Haschke and Steffen Wetzel

## Hans Jensen Invited Lecture | Thursday, 06.10.2011 | 17:30 | Great Lecture Theatre, Philosophenweg 12

- »BETA DECAYS – THEIR ROLE IN PARTICLE PHYSICS« ..... Vera Lüth, Stanford University  
followed by the d-fine barbecue

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



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