



HGSFP

Heidelberg Graduate School  
of Fundamental Physics



# XXVI HEIDELBERG PHYSICS GRADUATE DAYS

## 04. April – 08. April 2011

at the Department of Physics and Astronomy of the University of Heidelberg

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

#### »NON-PERTURBATIVE METHODS IN GAUGE THEORIES«

Dmitry Antonov, Instituto Superior Técnico, Lisbon

#### »THE KONDO EFFECT IN NANOSTRUCTURES«

Mikhail Kiselev, Abdus Salam International Centre for Theoretical Physics, Trieste

#### »CLIMATE PHYSICS«

Andreas Hense, Meteorological Institute, University of Bonn

#### »COSMOLOGICAL PERTURBATIONS FOR THE LARGE SCALE STRUCTURE

OF THE UNIVERSE: TOWARDS THE TRANSLINEAR FRONTIER« Massimo Pietroni, University of Padua

#### »NEUTRINOS: FROM THEIR DISCOVERY TO MODERN PUZZLES«

Heather Ray, University of Florida

#### »FROM OPTICAL MOLASSES TO QUANTUM SIMULATORS:

PRINCIPLES AND APPLICATIONS OF ULTRA-COLD ATOMS« Oliver Morsch, University of Pisa

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

#### »BRAIN-INSPIRED COMPUTING«

Karlheinz Meier, University of Heidelberg

#### »EXTRASOLAR PLANETS«

Florian Rodler/Florian Freistetter, ICE, Barcelona/University of Heidelberg

#### »QUANTUM PHYSICS WITHOUT QUANTUM PHILOSOPHY«

Detlef Dürr, Ludwig Maximilian University Munich

#### »ACCELERATED DOMESTICATION OF NATURE (ADN):

RETHINKING DEVELOPMENT BY ECOLOGICAL „OVERSHOOT“« Giridhari Lal Pandit, University of Delhi

#### »STRATEGIES FOR A SUCCESSFUL DOCTORATE:

PROJECT MANAGEMENT, SOCIAL SKILLS, TIME MANAGEMENT« Ute Leidig, University of Heidelberg

### Additional Lecture | Monday, 04.04.2011 | 17:30

#### »VACUUM TECHNOLOGY IN LOW ENERGY NEUTRINO EXPERIMENTS – LEAK TESTING

THE KATRIN MAIN SPECTROMETER« Rudolf Konwitschny, Alcatel Hochvakuum Technik GmbH  
followed by a general welcome party

### Hans Jensen Invited Lecture | Thursday, 07.04.2011 | 17:30 | Great Lecture Theatre, Philosophenweg 12

#### »ASTROPHYSICAL BLACK HOLES«

Ramesh Narayan, Harvard 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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