

## SCHEDULE

### TUESDAY

- 08:30–09:30 Registration at the foyer of the  
»Physikalisches Institut«, INF 226
- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch, welcome address
- 14:00–17:00 Afternoon lectures
- 17:15–18:30 Student Representatives' Welcome
- 18:30– ... General welcome party

### WEDNESDAY

- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch
- 14:00–17:00 Afternoon lectures

### THURSDAY

- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch
- 14:00–17:00 Afternoon lectures
- 17:30–18:30 Hans Jensen Invited Lecture
- 18:30– ... d-fine barbecue

### FRIDAY

- 09:30–12:30 Morning lectures
- 12:30–13:30 Lunch
- 14:00–17:00 Afternoon lectures

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## MAP



- ..... »Physikalisches Institut«, INF 226
- ..... »Kirchhoff-Institut für Physik«, INF 227
- ..... »Institut für Umweltphysik«, INF 229
- ..... »Hörsäle Physik«, INF 308
- ..... »Chez Pierre«, INF 304

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UNIVERSITÄT  
HEIDELBERG  
ZUKUNFT  
SEIT 1386

# 34th HEIDELBERG PHYSICS GRADUATE DAYS

April 7–10, 2015

AT THE DEPARTMENT OF PHYSICS AND ASTRONOMY

## PROGRAMME

SUPPORTED BY:



MAX-PLANCK-INSTITUT  
FÜR KERNPHYSIK

FURTHER  
INFORMATION:



d-fine

## PROGRAMME

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### MORNING COURSES (9:30–12:30)

BARYOGENESIS IN THE EARLY UNIVERSE  
**Laura Covi**, Göttingen University *INF226 K2/3*

GRAVITATION AND THERMODYNAMICS  
**Yves Gaspar**, Catholic University of the Sacred Heart, Brescia *INF227 SR2.403*

AN X-RAY VIEW OF ACTIVE GALACTIC NUCLEI AND THEIR COSMOLOGICAL EVOLUTION  
**Andrea Merloni**, Max Planck Institute for Extraterrestrial Physics, Garching *INF227 SR2.404*

PHYSICAL MODELLING OF NEURAL CIRCUITS  
**Paul Rhodes**, Evolved Machines, Palo Alto, California *INF227 SR1.403/404*

APPLICATIONS OF NMR IN BIOMEDICINE  
**Lothar Schad and Florian Lietzmann**, Heidelberg University *INF227 SR2.402*

TIMELY TOPICS OF ATOMIC AND MOLECULAR PHYSICS WITH FEMTOSECOND X-RAY FREE-ELECTRON LASER SOURCES  
**Nina Rohringer**, Center for Free-Electron Laser Science, Hamburg *INF227 SR3.403/404*

### REGISTRATION

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All participants are requested to register at the conference office on Tuesday morning between 8:30 and 9:30. This office will be positioned in the foyer of the »Physikalisches Institut«, INF 226. If you have not paid the conference fee, you should do it in cash then. At this office, you can obtain further information about the event. There will also be a short welcome address by the organisers on Tuesday during the lunch break, where you can ask further questions.

### AFTERNOON COURSES (14:00–17:00)

LIGHT ON THE DARK UNIVERSE: COSMOLOGY AND THE COSMIC MICROWAVE BACKGROUND  
**Valeria Pettorino**, Heidelberg University *INF226 K2/3*

SEMICONDUCTOR DEVICES FOR THE DETECTION OF IONISING RADIATION  
**Jörn Grosse-Knetter**, Göttingen University *INF227 SR2.402*

FUNDAMENTAL PHYSICS AT LOW ENERGIES  
**Joerg Jaeckel**, Heidelberg University *INF227 SR1.403/404*

PHYSICS OF NEW MATERIALS: FROM CARBON NANOTUBES TO TOPOLOGICAL INSULATORS  
**Andreas Komnik**, Heidelberg University *INF227 SR3.403/404*

USING ACCELERATOR LIBRARIES FOR SCIENCE  
**Robert Strzodka**, Heidelberg University *INF227 SR2.404*

ANALYZING PERSONAL POTENTIAL FOR YOUR CAREER  
**Ute Leidig**, Heidelberg University *INF227 SR2.403*

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### STUDENT REPRESENTATIVES' WELCOME (TUESDAY, 17:15–...)

**Walter Hahn, Puneet Murthy** *INF226 K2/3*

### HANS JENSEN INVITED LECTURE (THURSDAY, 17:30–18:30)

COSMOLOGICAL SIMULATIONS OF GALAXY FORMATION AND EVOLUTION  
**Lars Hernquist**, Harvard University *INF227 HS1*

## BREAKS AND EVENTS

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COFFEE BREAKS (AROUND 11:00 AND 15:30)  
*FOYER, INF 226*

LUNCH BREAK (12:30–13:30)  
*»CHEZ PIERRE«, INF 304*

GENERAL WELCOME PARTY (TUESDAY, 18:30–...)  
*FOYER, INF 226*

D-FINE BARBECUE (THURSDAY, 18:30–...)  
*FOYER, INF 226*

### LEGEND

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**INF 226 K2/3** »Konferenz 2/3«  
room 00.102/103  
»Physikalisches Institut«  
Ground floor

**INF 227 HS1** »Großer Hörsaal«  
Kirchhoff Institute for Physics  
Ground floor

**INF 227 SR 1.403/404** Seminar room  
Kirchhoff Institute for Physics  
1st floor

**INF 227 SR 2.402–2.404** Seminar rooms  
Kirchhoff Institute for Physics  
2nd floor

**INF 227 SR 3.403/404** Seminar room  
Kirchhoff Institute for Physics  
3rd floor