

QUALI-Start-Up Science Lectures

Qualification for qualified students in basic science

9 – 17 September 2017 | Forschungszentrum Jülich | Germany



Ministry of
Education
and Science

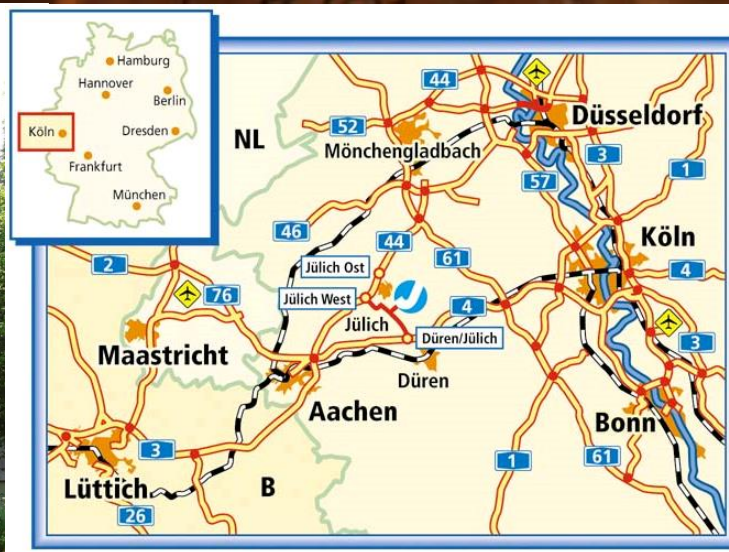


Hans Ströher | Forschungszentrum Jülich



TSU, June 2017

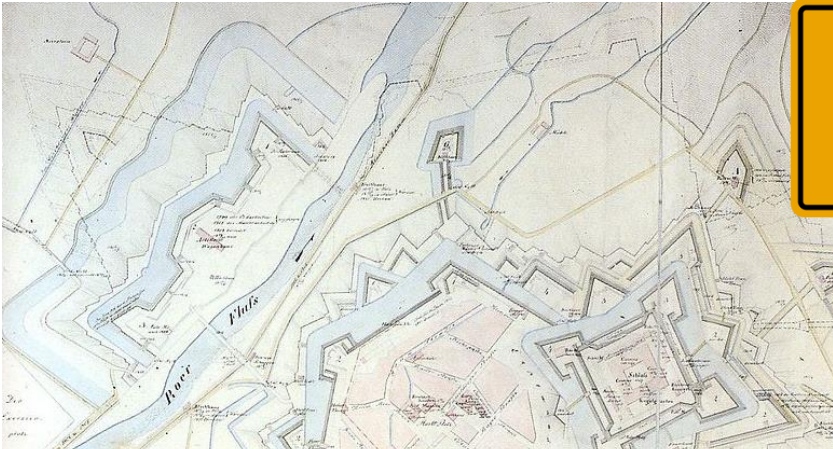
Aachen



Köln
(Cologne)



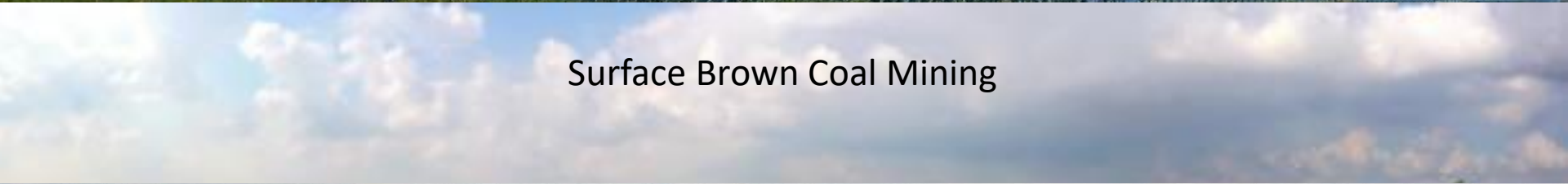
Jülich



Solar Tower and Sugar Refinery

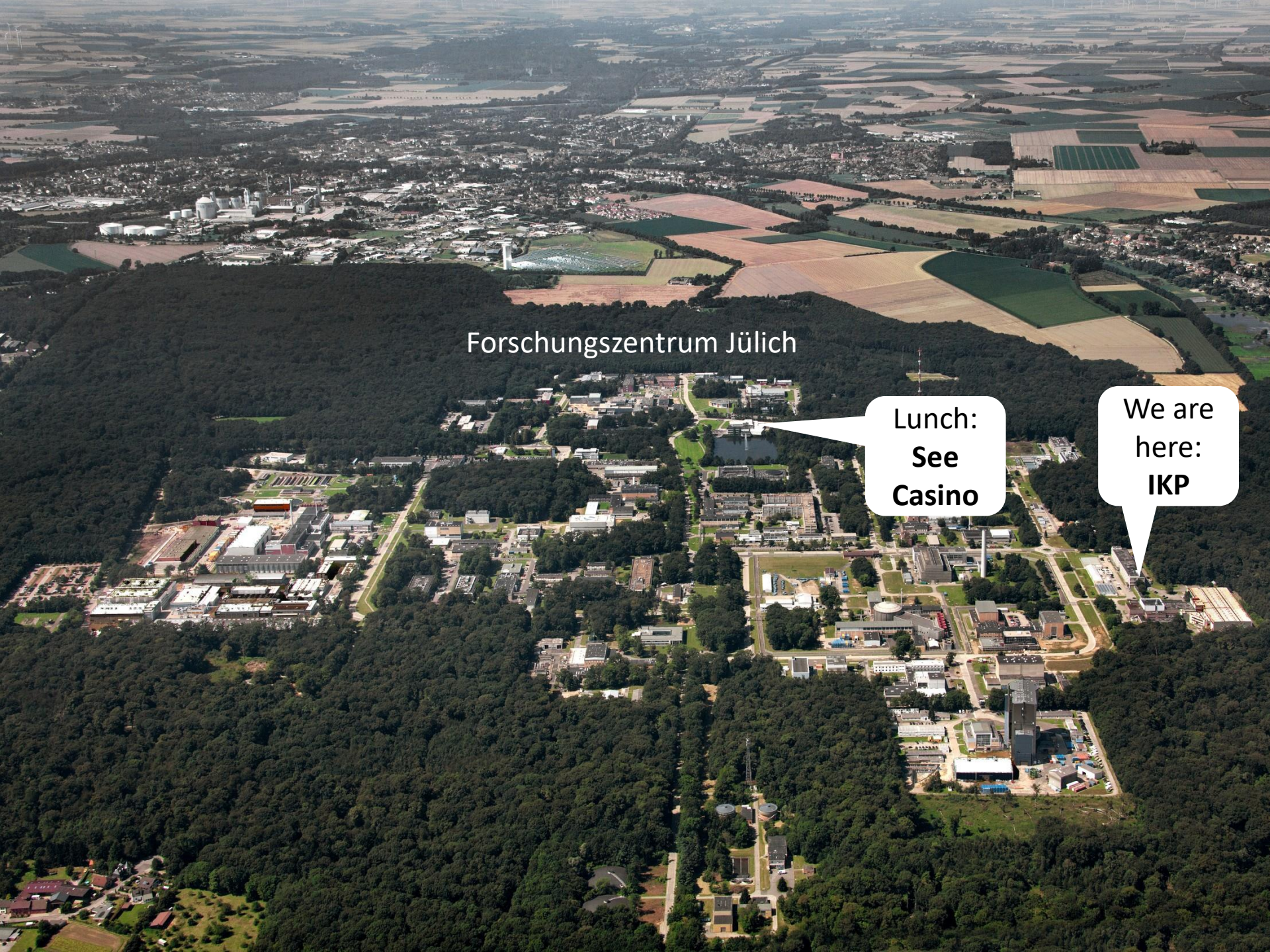


Surface Brown Coal Mining



Sophienhöhe



An aerial photograph of the Forschungszentrum Jülich. The image shows a large complex of buildings and parking lots situated in a valley, surrounded by dense green forests. In the background, there are rolling hills with patches of green and brown fields, and a small town or village is visible. The sky is clear and blue.

Forschungszentrum Jülich

Lunch:
**See
Casino**

We are
here:
IKP

PROGRAMME

NUCLEAR PHYSICS INSTITUTE

IKP LECTURES

11 SEPTEMBER 2017

- 08:00 FZ Jülich bus collects students at Walramplatz (close to the Stadthotel)
- 08:30 Arrival of students; get visitor badges (please don't forget your passports !)
- VENUE: BUILDING 07.1, ROOM 312
- 09:00 Campus bus tour, guide: *Mathis Ernst*
- 10:00 Opening Session; *Hans Ströher*
- 10:15 Welcome; *Sebastian Schmidt*, Member of the Board of Directors
- 10:45 Structure of Matter; *Hans Ströher*
- 11:25 **Break**
- 11:40 Basics: Interaction with Matter/Radiation; *Detlev Gotta*
- 12:20 Detectors (Tools); *Irakli Keshelashvili*
- 13:00 **Lunch at Seecasino**
- 14:00 Lab Training: see overview
- 17:30 End

INSTITUTE OF ENERGY AND CLIMATE RESEARCH

IEK LECTURES

12 SEPTEMBER 2017

- 08:28 Public bus N° 220, depart from bus stop „Walramplatz“
- 08:57 Exit at bus stop Forschungszentrum „Strahlenschutz“
- VENUE: BUILDING 05.2, ROOM 3012
- 09:00 Introduction: Atmospheric Chemistry and Climate; *Andreas Wahner*,
Astrid Kiendler-Scharr
- 09:45 Aerosol: Formation and Sources, Aging and Sinks; *Thomas Mentel*
- 10:30 Stable Isotopes as tools in Process Studies; *Iulia Gensch*
- 11:15 **Break**
- 11:30 Photochemistry and Radical Chemistry; *Andreas Hofzumahaus*
- 12:15 Longterm Measurements of Key Climate Variables on Passenger Aircraft - IAGOS;
Andreas Petzold
- 13:00 **Lunch at Seecasino**
- 14:00 Lab Training: see overview
- 17:30 End

JÜLICH CENTRE FOR NEUTRON SCIENCE

JCNS LECTURES

13 SEPTEMBER 2017

- 08:28 Public bus N° 220, depart from bus stop „Walramplatz“
- 08:56 Exit at bus stop Forschungszentrum „Wache 1“
- VENUE: BUILDING 04.8, ROOM 337/338
- 09:00 Probing Matter with Scattering Methods: An Elementary Introduction; *Manuel Angst*
- 09:45 Magnetic Properties of Condensed Matter Systems Probed by Magnetometry
Methods; *Oleg Petracic*
- 10:30 **Break**
- 10:45 Neutron Sources for Science; *Jörg Voigt*
- 11:30 X-ray and Neutron Scattering from Nanostructures; *Emmanuel Kentzinger*
- 12:15 **Lunch at Seecasino**
- 13:00 Departure to Aachen, bus stop "Seecasino"
- 14:00 Institute visit at RWTH Aachen University, Institute of Physics, 26c 205; *Achim Stahl*
- 17:30 Opportunities at RWTH Aachen University; *Dieter Janssen*
- 18:00 Aachen City Tour
- 20:00 Departure to Jülich

INSTITUTE OF NEUROSCIENCE AND MEDICINE

INM LECTURES

14 SEPTEMBER 2017

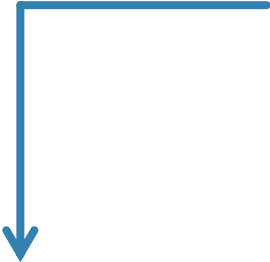
- 08:28 Public bus N° 220, depart from bus stop „Walramplatz“
- 08:53 Exit at bus stop Forschungszentrum „Feuerwehr“
- VENUE: 09:00-11:15 BUILDING 15.14, ROOM 102
- 09:00 Introduction to Magnetic Resonance Imaging; *N. Jon Shah*
- 09:45 Advanced MRI Methods: Diffusometry; *Farida Grinberg*
- 10:30 MR-PET: Everything You Need to Know to Get Started; *Liliana Caldeira*
- 11:15 **Break**
- VENUE: BUILDING 15.19, ROOM 4012
- 11:30 Introduction to Nuclear Chemistry; *Bernd Neumaier*
- 12:15 18F-labeling Chemistry; *Johannes Emert*
- 13:00 **Lunch at Seecasino**
- 14:00 Lab training: see overview
- 17:30 End

CENTRAL INSTITUTE OF ENGINEERING, ELECTRONICS AND ANALYTICS

ZEA LECTURES

15 SEPTEMBER 2017

- 08:28 Public bus N° 220, depart from bus stop „Walramplatz“
08:54 Exit at bus stop Forschungszentrum „Heizwerk“
VENUE: BUILDING 02.5, ROOM 310
09:00 Simulation and Calculations; *Jörg Wolters*
09:45 X-Ray Micro Focus CT; *Fred Pauly*
10:30 R Thermography; *Harald Glückler*
11:15 **Break**
11:30 SiPM Based Detectors; *Daniel Durini*
12:15 SoC - Highly Integrated Solutions for Science; *Carsten Degenhardt*
13:00 **Lunch at Seecasino**
VENUE: BUILDING 07.1, ROOM 312
14:00 Wrap-up by Students: (20 minutes each group)
1. IKP-Students, 2. IEK-Students, 3. JCNS-Students, 4. INM-Students,
5. ZEA-Students
15:40 Outlook & Certificates; *Andro Kacharava*
16:00 Farewell Party (open end)



Feedback by you (gained experience, constructive criticism, ...)
Free format (talk, poster, ppt-presentation, photographs, ...)

Listen, practice (**be careful!**), ask, give feedback, ...
... and enjoy you stay

Welcome to Forschungszentrum Jülich!

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