

Lectures in Engineering, Electronics and Analytics

Central Institute of Engineering, Electronics and Analytics

- General introduction
- Vacuum Technologies
- Mechanical Design & Layout
- Simulations, Calculations
- Electronic Systems
- Solutions in the Field of Electronics and Information Technologies



Construction of a PET spectrometer for primate and small-scale experiments

How to apply?

Interested students with a Bachelor's or Master's degree from the Georgian universities: AUG, ISU, GTU, TSU are requested to submit the following documents in English: (i) short CV, (ii) motivation letter, (iii) reference letter from their faculty teacher/ supervisor

Submission deadline: May 1st, 2017

Submit your complete application to:

Prof. Ketevan Kotetishvili (GTU), e-mail:

k.kotetishvili@gtu.ge

To follow the lessons good English language skills are required.

More detailed information about the event and the program can be found at:

<http://fz-juelich.gtu.ge/autumn-lectures/2017/about-event>

Selection Process:

If your application succeeds the first evaluation step, you will be invited to a personal interview run by representatives of the Georgian universities and the Forschungszentrum Jülich in the week of June 4th – 9th, 2017. These interviews will take place in Tbilisi, Georgia. The final result will be communicated shortly after the interviews.

Programme

September 2017								
Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
9	10	11	12	13	14	15	16	17
Arrival	Welcome	Lectures in Fundamental Research and Applications in the Field of Particle and Nuclear Physics	Lectures in Medical Imaging Physics and short-lived Radionuclides for Life Sciences	Lectures in Condensed Matter Physics and Scattering Methods	Lectures in Atmospheric Science and Environment	Lectures Engineering Sciences	SOCIAL EVENT	Departure

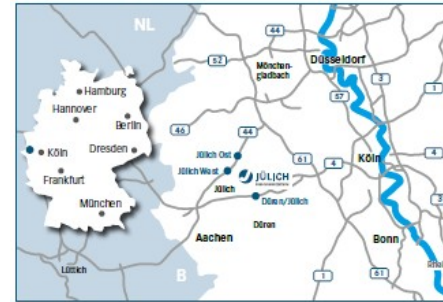
The QUALI-Start-Up Science Lectures are a joint activity of:

Forschungszentrum Jülich and TSU, ISU, GTU, AUG and jointly funded by Forschungszentrum Jülich and the Georgian Ministry of Education and Science and supported by the Shota Rustaveli National Science Foundation.

DRAFT - DRAFT - DRAFT - DRAFT

Where does the lectures take place?

The QUALI-Start-Up Science Lectures take place in Jülich, Germany at the Forschungszentrum Jülich. Jülich is located in the Federal State of North-Rhine Westphalia of Germany, close to cities of Aachen, Cologne, Düsseldorf and Bonn.



QUALI-Start-Up Science Lectures

APPLY NOW

Qualification for qualified students in basic science

Forschungszentrum Jülich, Germany
September 9th – 17th, 2017



DRAFT - DRAFT - DRAFT - DRAFT

Lectures in Fundamental Research and Applications in the Field of Particle and Nuclear Physics

Nuclear Physics Institute

- General introduction
- Precision Physics at COSY (Cooler Synchrotron)
- Accelerator basics
- Detector basics
- Data taking techniques
- Analysis and simulation tools



COSY – Cooler Synchrotron

Lectures in Medical Imaging Physics and short-lived Radionuclides for Life Sciences

Institute of Neuroscience and Medicine

- General introduction
- Basics in nuclear medicine
- Medical imaging physics
- Information about MRI and PET
- Basics in radionuclide production
- Applications (e.g. oncology, neurodegenerative diseases)

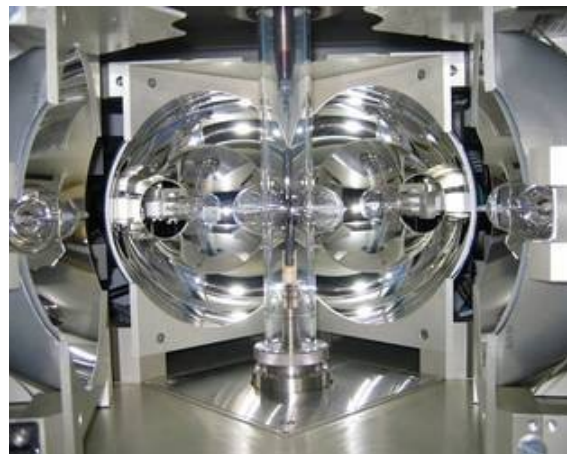


9.4-tesla magnetic resonance tomograph (MRT) combined with a positron emission tomograph (PET).

Lectures in Condensed Matter Physics and Scattering Methods

Jülich Centre for Neutron Science, Peter-Grünberg-Institute

- General introduction to Jülich Centre for Neutron Science
- Investigation of structure and dynamics of soft matter
- Neutron scattering instruments
- The high brilliance accelerator-based neutron source
- Basic and application-oriented research



Sample preparation for fundamental research of electronic and magnetic properties in polycrystalline materials, single crystals, thin films and nanoparticles

Lectures in Atmospheric Science and Environment

Institute of Energy and Climate

- General introduction
- Chemical aspects of environmental (atmosphere) monitoring
- Atmospheric chemistry from gas phase to aerosol
- Mathematical methods of modeling of atmosphere
- Regional atmospheric forecast model development



SAPHIR – Simulation of Atmospheric PHotochemistry In a large Reaction Chamber