

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

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)
Email: 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:

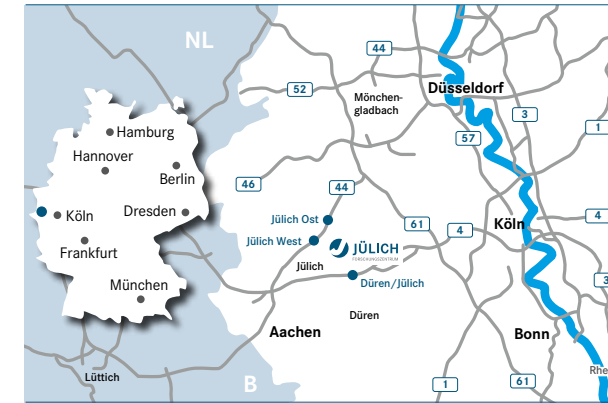
www.fz-juelich.gtu.ge/autumn-lectures/2017/about-event

Selection Process:

If your application passes 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 right after the interviews.

Where do the lectures take place?

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



PUBLICATION DETAILS

Published and Printed by: Forschungszentrum Jülich GmbH, 52425 Jülich, Germany
Images: Forschungszentrum Jülich, title: ©kasto/fotolia.com



Prof. Dr. Gahleb Natour (ZEA-1) in front of a radiometer for measuring the moisture content in soils.

Programme September 2017

9 SA	10 SU	11 MO	12 TUE	13 WED	14 THU	15 FR	16 SA	17 SU
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 Visit of RWTH Aachen	Lectures in Atmospheric Science and Environment	Lectures in Engineering, Electronics and Analytics	Social Event	Departure

The QUALI-Start-Up Science Lectures are a joint activity of Forschungszentrum Jülich and the Georgian universities AUG, GTU, ISU and TSU. They are jointly funded by Forschungszentrum Jülich and the Georgian Ministry of Education and Science and supported by the Shota Rustaveli National Science Foundation.

QUALI-Start-Up Science Lectures

Qualification for qualified students in basic science

9 – 17 September 2017 | Forschungszentrum Jülich | Germany

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

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)

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

Lectures in Atmospheric Science and Environment

Institute of Energy and Climate Research

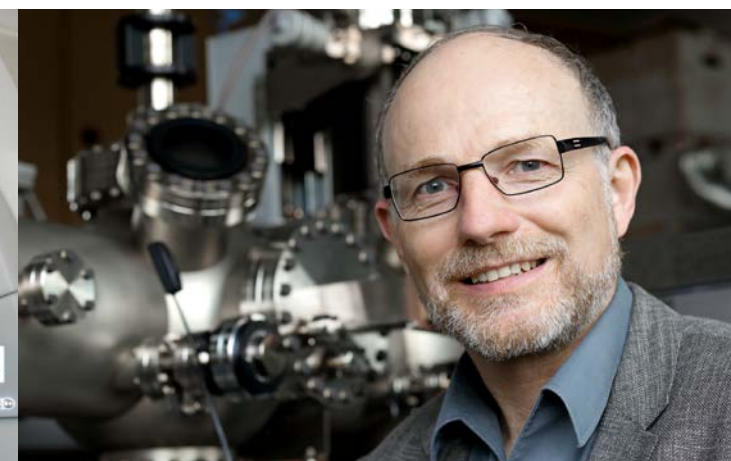
- General introduction
- Chemical aspects of environmental (atmosphere) monitoring
- Atmospheric chemistry from gas phase to aerosol
- Mathematical methods of modeling of atmosphere
- Regional atmospheric forecast model development



Prof. Mei Bai (IKP-4) and Prof. Dr. Hans Ströher (IKP-2) in the hall of COSY – **Cooler Synchrotron**.



Prof. Dr. N. J. Shah (INM-4) in front of 9.4-tesla magnetic resonance tomograph (MRT) combined with a positron emission tomograph (PET).



Prof. Dr. Thomas Brückel (JCNS-2) in front of a Molecular Beam Epitaxy (MBE) system used for preparation of magnetic thin films.



Prof. Dr. Astrid Kiendler-Scharr (IEK-8) in front of SAPHIR – **Simulation of Atmospheric PHotochemistry In a large Reaction Chamber**.