

GGSB – Tbilisi 2015



Status and Forward Look

October 7, 2015 | Hans Ströher (Forschungszentrum Jülich)



Letter of Intent; Memorandum of Understanding;
Student Internship; **SRNSF-FZJ Student Exchange Program**;
Exchange of Scientific Equipment
Student Education

Vereinbarung
über die gemeinsame Betreuung eines Promotionsverfahrens
ხელშეკრულება
სადოქტორო დისერტაციის ერთობლივი ხელმძღვანელობის შესახებ

Ivane Javakhishvili Tbilisi State University
1, Ilia Tchavchavadze Alle. 0179, Tiflis, Georgien
ივანე ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტსა
ილია ჭავჭავაძის გამ. 1, 0179 თბილისი, საქართველო

und/და

Mathematisch-Naturwissenschaftliche Fakultät der Universität zu Köln
Albertus-Magnus-Platz, 50923 Köln, Deutschland
კიოლნის უნივერსიტეტის
მათემატიკისა და საბუნებისტმეცველო მეცნიერებათა ფაკულტეტის
ალბერტუს-მაგნუსის მოედანი, 50923 კიოლნი, გერმანია

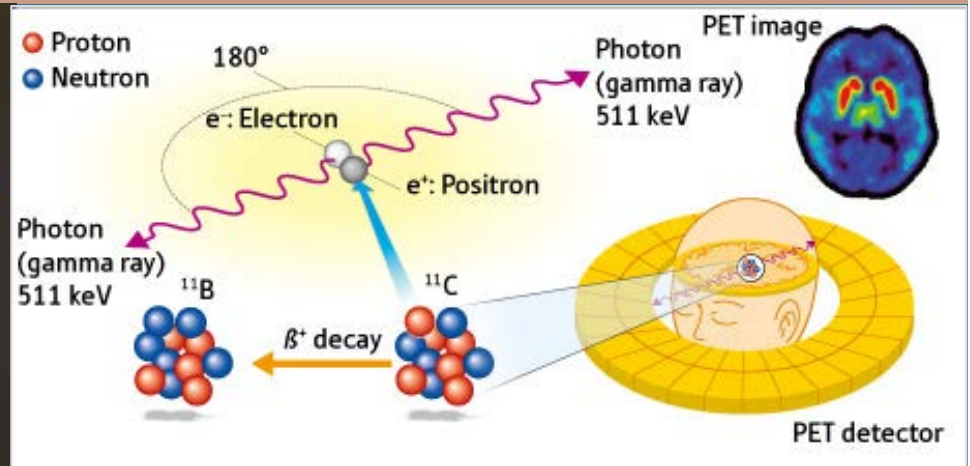
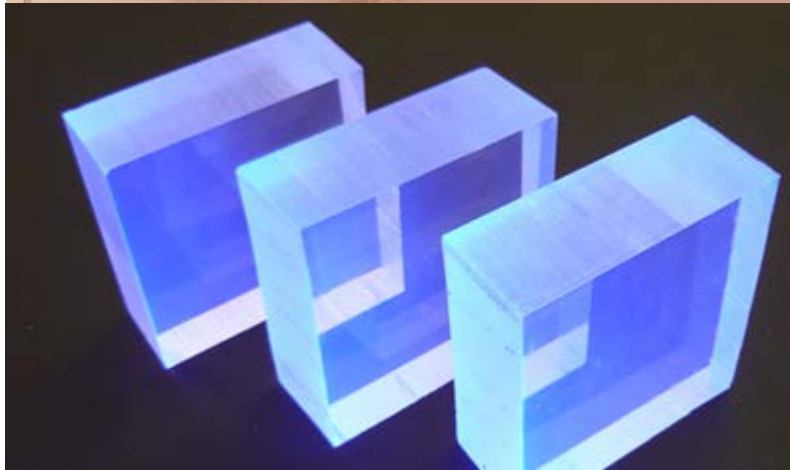
შორის

vertreten durch den Dekan/Rektor
წარმოდგენილი დეკანით/რექტორით



2nd Lectures Series
at Georgian Technical University (GTU)
October 2015

Autumn Lectures



Example: Scintillators → PET Diagnostics



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Option of Georgian Scientists to return to Georgia

SMART ... Science, Medicine, Applied Research and Technology

- affiliated with a Georgian University
- scientific and/or medical subject with a strong technological component and with possible applications
- ✓ built around a small group (3-5) scientists/engineers in Georgia
- ✓ lead by an outstanding young Georgian scientist
- ✓ connections to an international research institution („partner“)
- ✓ connected with a long-term (> 10 yrs) research project

Current ideas:

- ❖ **SMART|EDM_Lab:** Symmetries in physics;
Polarimeter srEDM
- ❖ **SMART|MRI_Lab:** Medical diagnostics;
NMR imaging
- ❖ **SMART|AtmoSim_Lab:** Atmospheric research;
Simulations

SMART|EDM_Lab

Motivation for the foundation of a SMART|Lab within the Project
**Search for Electric Dipole Moments of Protons and Deuterons in Storage Rings
(srEDM)**

Executive Summary of Science Case and Organizational Structure

Science:	Fundamental research: Symmetries and symmetry breaking in subatomic physics
Science Impact:	Evolution of the Universe (Matter-Antimatter Asymmetry); Physics beyond the Standard Model of Particle Physics
Jülich Project:	Search for charged particle Electric Dipole Moments in Storage Rings (srEDM)
Int. Collaboration:	JEDI (J ülich E lectric D ipole M oment I vestigations) (http://collaborations.fz-juelich.de/ikp/jedi/)
SMART Lab Issue:	Polarimetry of the proton/deuteron beam in the EDM storage ring
Technology:	Polarimeter (detector and target) design, construction (incl. electronics, readout)
Technology Impact:	Simulation and design programs, scintillation detectors for medical research

... to be founded during this week!



გმადლობთ