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PRELIMINARY Program for CGSWHP'10 (May 3 – 7), Tbilisi, Georgia
4th „*Georgian – German School and Workshop in Basic Science*“

Topics:

- EXISTING AND FUTURE HADRON PHYSICS PROJECTS AT COSY AND FAIR (EXPERIMENT, THEORY)
- HADRON PHYSICS WITH POLARIZED ANTIPROTONS (SPIN-FILTERING)
- DESIGN AND ENGINEERING FOR UPCOMING PROJECTS (HESR, PANDA, PAX)
- PROJECTS IN MATERIAL SCIENCE
- PROJECTS IN ATMOSPHERIC CHEMISTRY
- INFORMATION TECHNOLOGY AND ADVANCED COMPUTING
- EDUCATION OF FUTURE SCIENTIFIC AND ENGINEERING PERSONNEL

Draft agenda for the 4 days of working program:

(Location of the meeting)

Day 1(4): Merab Berdzenishvili International Center of Culture „MUZA“

Day 2: Ivane Javakhishvili Tbilisi State University (TSU)

Day 3: Georgian Technical University (GTU)

May 3, Monday (MUZA): 12⁰⁰ - 16⁰⁰

Existing Cooperation and Hadron Physics Projects

Welcome Address (to be conformed - *tbc*):

- Georgian Minister (or representative)
- German Ambassador (or representative)
- Rector of TSU – Prof. Giorgi Khubua
- Rector of GTU – Prof. Archil Prangishvili

General Information (working titles):

- Hans Stroehler (FZJ) – Scope of the Workshop
- Hans Stroehler (FZJ) – Hadron Physics in Germany and Europe (COSY, FAIR)
- Rudolf Maier (FZJ) – The FAIR Project at GSI-Darmstadt (Accelerator part)
- Frank Rathmann (FZJ) – The Quests for Polarized Antiprotons (PAX)
- Elena Abrosimova (FZJ) – Research and Career Opportunities at FZJ
- Andro Kacharava (FZJ) – Georgians at FZJ: Existing Collaborations

Ceremony session for signature of the official documents

- MoU between FZJ GmbH and Georgian Partner Institutions (TSU, GTU)
- Extension of Cooperation Agreement between IKP-FZJ and HEPI TSU

Reception by Ministry for German Delegation

18⁰⁰ - 22⁰⁰

Social program

May 4, Tuesday (TSU) 10⁰⁰ - 18⁰⁰

Future Cooperation and Academic Training

Welcome Address – Rector of TSU, Giorgi Khubua

Introduction to the Faculty of Exact and Natural Science – Dean, Ramaz Botchorishvili

Hadron Physics Project - „From COSY to FAIR“

- Hans Stroeher (FZJ/Cologne Uni) – The Need for Basic Science
- Frank Rathmann (FZJ/Erlangen Uni) – How to Polarize Antiprotons ?
- David Chiladze (FZJ/HEPI TSU) – Instrumentation and Tools at COSY
- Irakli Keshelashvili (HEPI TSU/Basel Uni) – Experiments at ELSA (Bonn) and MAMI (Mainz) Electron Accelerators

Field of the Atmospheric Chemistry

- Hendrik Elbern (FZJ/Cologne Uni) – Selected Topics for Atmospheric Chemistry
- Ramaz Botchorishvili (TSU) – Title is needed (*tbc*)

Future collaborators: The New Partners

- Alexander Shengelaya (TSU) – Study of Novel Superconducting and Magnetic Materials using Muon Spin Rotation Technique
- Vazha Berezhiani (TSU) – Plasma Physics (*tbc*)

Invited Lectures:

- Markus Buescher (FZJ/Dusseldorf Uni) – Laser Technology in Particle Physics
- Detlev Gotta (FZJ/Cologne Uni) – Exotic Atoms

Georgian Students (TSU) Activity:

- Andria Agajanov – (Theory: Self-adjoint extension of the operators in quantum mechanics)
- Zara Bagdasarian – (Experiment: CTA design study)
- N.N. – (Mathematics)
- N.N. – (Information Technologies/Computing)

19⁰⁰ - 22⁰⁰

Social program

May 5 , Wednesday, Social program (one day excursion to Khaheti region)

May 6, Thursday (GTU) 10⁰⁰ - 18⁰⁰

Future Cooperation and Academic Training

Welcome Address – Rector of GTU, Archil Prangishvili

Introduction to GTU – David Tavkhelidze

Cooperation Partners from Germany (FZJ):

- Hans Stroehler (FZJ/Cologne Uni) – Introduction to Research Center Jülich
- Günter Hansen (FZJ) – Central Technology Division (ZAT)
- Andreas Wahner (FZJ/Cologne Uni) – Institute of Chemistry and Dynamics of the Geosphere (ICG-2)
- Torsten Markus (FZJ/RWTH) – Institute of Energy Research (IEF-2)
- Christoph Hanhart (FZJ/Bonn Uni) – Highlights and Challenges of Hadron Physics (IKP-Theory, Invited Lecture)

Cooperation Partners from Georgia:

- David Tavkhelidze (GTU) – Engineering Legacy of GTU
- Elguja Kutelia (GTU) – Past, present and future of the Republic Center Structure Researches
- Olga Tsursumia (GTU) – Degradation of the materials used in the energetic systems and the ways to prolong their operation time
- N.N. (GTU) – Who else ?

Georgian Students (GTU) Activity (names is needed ?):

- Nika Sharmazanashvili (Magister) – Activity for PANDA@FAIR project
- Lili Nadaraia (PhD) – Development and investigation of nanocrystalline composite materials
- N.N. – Who else ?

Visits/Sightseings of Various Partner Institutions:

- Georgian Technical University (which departments ?)
- Institute of Structures, Special Systems and Engineering Support of GTU

19⁰⁰ - 23⁰⁰

Social program (*Banquet of workshop*)

May 7, Friday (MUZA) 10⁰⁰ - 13⁰⁰

Strategy Discussion

Exchange Programs:

- Status of Georgian – German (GG) Collaborations (examples) – A. Kacharava
- Development of GG Cooperation:
 - **Sommer Schools** (Physics, Bad-Honnef 2010)
 - **Schemes** (Joint PhD programs) **with other countries** – E. Abrosimova
 - **Concept of Virtual Institute (GGVIBS)** – H. Stroehrer
- Organizational Issues (contact persons)
 - **GNSF** (representative) (*tbc*)
 - **DAAD/BMBF** (representative) (*tbc*)
 - **FZJ** (E. Abrosimova)
 - **TSU** (representatives)
 - **GTU** (representatives)
- Next Steps, Milestones

Concluding remarks:

Germany – Hans Stroehrer
Georgia – Ramaz Botchorishvili

End of Workshop