

School Program

GGSWBS'12 (August 13 – 17), Batumi, Georgia

5th „Georgian – German School and Workshop in Basic Science“

Topics:

1. Existing and Future Physics Projects at Large-Scale Facilities: COSY, FAIR, and LHC
2. Search for Electric Dipole Moments (EDMs) at Storage Rings
3. Solid State Physics and Materials Science
4. Bio- and GeoScience
5. Engineering Science
6. Neuroscience and Medicine
7. Information Technology and Advanced Computing

Location of the meeting:

Day 1, 2: Shota Rustaveli Batumi State University (BSU)

Day 3: Social Program (Excursion)

Day 4, 5: Shota Rustaveli Batumi State University (BSU)

August 13, Monday (BSU) 10⁰⁰ - 18³⁰

Opening session

- Welcome Address:** – **Aliosha Bakuridze**, Rector of BSU
– **Gia Abuladze**, Minister of Education, Culture and Sport of Ajara AR
– **Irma Tsereteli** (GIZ GE / CIM), Advisor for Migration and Diaspora Program "*Migration for Development*"
– **Hans Ströher** (FZ Jülich) - „*Scope of the School*“
– **Signature of LoI between IKP/FZ Jülich and BSU**

Topical lectures

Plenary session I (3^h):

- Lecture 1: Hans Ströher (FZJ) – „Structure of Matter“ (45')
Lecture 2: Andreas Wahner (FZJ) – „Climate, Environment“ (45')

Coffee Break (20')

- Lecture 3: Rudolf Maier (FZJ) – „Accelerators“ (45')
Lecture 4: Hendrik Elbern (Cologne Uni) – „Atmospheric Simulations“ (45')

Lunch (1,5h)

Parallel sessions (3h):

Session 1 (Topic 1 and 2): Convener – Mikheil Nioradze (TSU)

1. Sergey Mikirtychiants (FZJ) – „Data Acquisition Hardware and Triggering“ (45')
2. Giorgi Macharashvili (HEPI TSU/FZJ) – „Data Analysis“ (45')

Coffee Break (20')

Tutorials for working group 1

Session 2 (Topic 3): Convener – Alexander Shengelaya (TSU)

3. Avto Tavkhelidze (Ilia Uni) – „Quantum Size Effects in Nanostructures“ (45')
4. Olga Tsursumia (GTU) – „Modern Corrosion Resistant Materials“ (45')

Coffee Break (20')

Tutorials for working group 2

Session 3 (Topic 4 and 6): Convener – Marine Koridze (BSU)

5. Ketino Natsarishvili (BSU) – „Researches in Biodiversity“ (30')
6. Zoya Sikharulidze (BSU) – „Researches in Phytopathology“ (30')
7. Sophio Papunidze (BSU) – „Researches in Agrarian and Membrane Technologies“ (30')

Coffee Break (20')

Tutorials for working group 3

End of day 1 !

August 14, Tuesday (BSU) 10⁰⁰ – 18³⁰

Topical lectures

Plenary session II (3^h):

- Lecture 5: Frank Rathmann (FZJ) – „Spin“ (45')
Lecture 6: Erhard Steffens (Erlangen Uni) – „Targets“ (45')

Coffee Break (20')

- Lecture 7: Kazimierz Conder (PSI) – „101 Years of Superconductivity“ (45')
Lecture 8: Sayavur Bakhtiarov (USA) – „Self-Healing Materials: Myth or Reality?“ (45')

Lunch (1,5h)

Parallel sessions (3h):

Session 4 (Topic 1 and 2): Convener – Andro Kacharava (FZJ)

8. Akaki Gigineishvili (GTU) – „Thin films and their optical properties“ (45')
9. Zaur Jabua (GTU) – „Technology of thin films“ (45')

Coffee Break (20')

Tutorials for working group 1

Session 5 (Topic 3): Convener – Olga Tsurtssumia (GTU)

10. Kazimierz Conder (PSI) – „Electronic and ionic conductivity in metal oxides“ (45')
11. Alexander Shengelaya (TSU) – „Oxygen isotope effects in novel superconductors“ (45')

Coffee Break (20')

Tutorials for working group 2

Session 6 (Topic 4, 5 and 7): Convener – Ramaz Botchorishvili (TSU)

12. NN – „To be announced“ (45')
13. NN – „To be announced“ (45')

Coffee Break (20')

Tutorials for working group 3

End of day 2 !

August 15, Wednesday

Excursion

August 16, Thursday (BSU) 10⁰⁰ – 18³⁰

Topical lectures

Plenary session III (3^h):

- Lecture 9: Detlev Gotta (FZJ) – „Detectors“ (45')
Lecture 10: Dieter Evesheim (Bonn Uni) – „Electronics“ (45')

Coffee Break (20')

- Lecture 11: Torsten Markus (FZJ) – „Energy Frontier“ (45')
Lecture 12: Levan Chkhartishvili (GTU) – „Studying Nanomaterials: Current Trends“ (45')

Lunch (1,5h)

Parallel sessions (3h):

Session 7 (Topic 3): Convener – Alexander Shengelaya (GTU)

14. Zurab Guguchia (TSU/Zürich) – „Muon Spin Rotation Technique and its Applications“
15. Tamar Chelidze (TSU) – „Coulumb Interaction in Quantum Structures ... “

Coffee Break (20')

Tutorials for working group 1

Session 8 (Topic 4 and 5): Convener – Gia Goletiani (GTU)

16. David Tavkhelidze (GTU) – „Development of Mechanical Engineering“ (45')
17. Mariam Elizbarashvili (TSU) – „Climate Change“ (45')

Coffee Break (20')

Tutorials for working group 2

Session 9 (Topic 7): Convener – Ramaz Botchorishvili (TSU)

18. Ramaz Botchorishvili (TSU) – „Numerical Modelling I“ (45')
19. Ramaz Botchorishvili (TSU) – „Numerical Modelling II“ (45')

Coffee Break (20')

Tutorials for working group 3

End of day 4 !

August 17, Friday (BSU) 10⁰⁰ – 12³⁰

Topical lectures

Plenary session IV(2^h):

Lecture 13: Vahtang Gogohia (RMKI) – „Theory of QCD“ (45')

Lecture 14: Ketevan Kotetishvili (GTU) – „Medical Physics: the Science of XXI Century“ (45')

Summary/Concluding remarks: **Hans Ströher (FZJ)**
 Aliosha Bakuridze (BSU)

End of School !