

# GGSB2022 – Kutaisi and Tbilisi

**Sunday, September 11 (KIU, Kutaisi)**

**Arrival, Campus Tour & Welcome Reception at KIU**

**[19:00 – 21:00]**

**Monday, September 12 (KIU, Kutaisi)**

**- GGSB Follow-Up -**

**Opening Session: Welcome & Opening Addresses** [Convener: Alexander Tevzadze]

**[11:00 – 11:30]**

Alexander Tevzadze (Rector KIU)

Mikheil Chkhenkeli (Minister of Education and Science of Georgia)

Sebastian Schmidt (Scientific Director HZDR)

Ghaleb Natour (Director ZEA-1, FZJ), Thomas Stöhlker (Deputy Science Director, GSI; Director HIJ)

Gebhard Reul (Head DAAD Regional Office Tbilisi)

**Session 1: Georgian-German Science Bridge (GGSB)** [Convener: Mikheil Chkhenkeli]

**[11:30 – 13:00]**

- Hans Ströher                      Georgian-German Science Bridge (GGSB): Retrospective
- N. Jon Shah                        Georgian-German Science Bridge (GGSB): Prospective GGSB-PLUS
- Sebastian Schmidt                New German Partner: Helmholtzzentrum Dresden-Rossendorf (HZDR)
- Thomas Stöhlker                 New German Partner: GSI Helmholtzzentrum für Schwerionenforschung
- Possible New German University Partners: Example Jena University
- Achim Stahl                        Possible New German University Partners: Example RWTH Aachen Univ.
- Tamar Lominadze                 Consortium of the Georgian Universities: Example GTU
- Zaza Metreveli                    Consortium of the Georgian Universities: Example AUG

**Lunch break** [13:00 – 14:00]

**Session 2: Guiding Ideas: Scientific & Societal Challenges** [Convener: Hans Ströher]

**[14:00 – 16:00]**

- T. Stöhlker/Jim Ritman            Fundamental Science: FAIR project & Exp.'s at GSI
- Andreas Wahner                    Climate Change
- N. Jon Shah                         Biomedical Imaging
- Wolfgang Enghardt                Proton Therapy Dresden
- Hanno Scharr                        High Performance Computing OR Machine Learning

**Coffee break** [16:00 – 16:30]

**KIU International Advisory Board Meeting (internal)**

**[16:00 – 17:30]**

**In parallel: Poster Session for Students** [Convener: Ramaz Botchorishvili]

- Opportunities for students in frame of GGSB:  
Eva Portius (FZJ), Ghosh Pradeep (GSI), Sandra Hamann (HZDR) [tbc]

**Dinner** (Restaurant *Chateau Gelati*)

**[19:00 – 21:00]**

# GGSB2022 – Kutaisi and Tbilisi

Tuesday, September 13 (KIU, Kutaisi)

– GGSB Strategic Focus –

## Plenary Session 3: GGSB-PLUS [Convener: NN]

[9:30 – 11:00]

- N. Jon Shah                      Biomedical Imaging Modalities in GGSB-PLUS
- Bernd Neumaier                Medical Diagnostics: Radiotracers
- Nugzar Kalandarishvili      Medical Treatment: Radiology
- Beka Bochorishvili          Medical Treatment: Radiology

Coffee break [11:00 – 11:30]

## Plenary Session 4: GGSB Future (I) [Convener: NN]

[11:30 – 13:00]

- Vakhtang Tsagareli          Hadron Therapy Center (HTC): Implementation & Status
- Revaz Shanidze                Hadron Therapy Center (HTC): Introduction
- Jürgen Fassbender            Ion Beam Center @ HZDR – from basic science to industr. application
- Peter Kaefer                    Controlling Advanced Experiments (part I)
- Gerald Wedel                  Controlling Advanced Experiments (part II)

Lunch break [13:00 – 14:30]

## Plenary Outreach Session: Public Lecture

[45 min]

- Roberto Orecchia              Hadron Therapy: current status and new perspective to realize High Precision Radiation Therapy

Cultural program (Excursion including dinner in the city) [17:00 – 21:00]

# GGSB2022 – Kutaisi and Tbilisi

Wednesday, September 14 (KIU, Kutaisi)

## Plenary Session 5: GGSB Future (II) - SMART|Labs [Convener: NN]

[10:00 – 12:00]

- N. Jon Shah/Ramaz B.        SMART|Bioimaging\_Lab: Imaging part
- B. Neumaier/Bezhan Ch.      SMART|Bioimaging\_Lab: Chemistry part [tbc]
- Hanno S./Ramaz B.          SMART|Data\_Lab: Machine Learning at KIU [tbc]
- Christian Schmidt            SMART|Detector\_Lab at GSI [tbc]
- Stefan van Wassen          SMART|Digital\_Lab: Electronics part [tbc]
- Ghaleb Natour                SMART|Tech\_Lab: Engineering part [tbc]
- Hans Ströher                  Vision: Georgian Science and Technology Center (GSTC)

Lunch break [12:30 – 14:00]

Wednesday (afternoon, 15:00 – 18:00), September 14, 2022

Transfer from Kutaisi to Tbilisi (hotel “Orion”)

# GGSB2022 – Kutaisi and Tbilisi

Thursday, September 15 (TSU, Tbilisi)

– GGSB at Georgian Partner Universities –

## Plenary Session 6: Existing and Future SMART|Labs [Convener: NN] [9:30 – 11:00]

- Welcome addresses: Nino Okribelashvili (Vice Rector of TSU)  
Dimitri Kordzaia (Dean of the Medical Faculty)
- David Mchedlishvili SMART|EDM\_Lab: Science Case – Search for EDMs and DM
- Otari Javakhishvili Contributions to the SMART|EDM\_Lab
- Dachi Okropiridze Contributions to the SMART|Detector\_Lab (GSI)
- Giorgi Jibuti SMART|AtmoSim\_Lab: Science Case – Atmospheric Chemistry
- Iulia Gensch Contributions to the SMART|AtmoSim\_Lab: The 'Hydrocarbon Clock'

### Coffee break [11:00 – 11:30]

- N. Jon Shah SMART|BioImaging\_Lab: Science Case – Medical Diagnostics
- Bernd Neumaier SMART|BioImaging\_Lab: Science Case – Radiotracers
- Heike Endepols SMART|BioImaging\_Lab: Small animal PET imaging (Univ. Cologne)
- David Arutinov SMART|Digital\_Lab: Background – Technology for Research [tbc]
- Harald Glueckler SMART|Tech\_Lab: Background – Technology for Research [tbc]
- Christian Schmidt SMART|Detector\_Lab: Contributions to GSI/FAIR Projects [tbc]
- Hanno Scharr SMART|Data\_Lab: Background – Machine Learning [tbc]

### Lunch break [13:00 – 14:30]

## Plenary Session 7: Student Activities at SMART|Labs [Convener: Andro Kacharava]

[14:30 – 16:00]

- Ninea Anasovi Contribution to the SMART|EDM\_Lab
- Lia Karadurmus Contribution to the SMART|AtmoSim\_Lab
- Nana Khundadze Contribution to the SMART|AtmoSim\_Lab
- Otari Gokhadze Contribution to the SMART|BioImaging\_Lab
- Tamar Khatisashvili Contribution to the SMART|BioImaging\_Lab
- Natia Beriashvili Contribution to the SMART|BioImaging\_Lab
- Tamar Khechiashvili Experience as a Medical Physicist at the *National Center of Surgery*

Visit of *National Center of Surgery in Tbilisi* (Tamar Khechiashvili) [16:00 – 17:30]

Visit of *Institute of Morphology TSU in Tbilisi* (Dimitri Kordzaia) [17:30 – 18:30]

Dinner (Restaurant *Paemani Veraze*) [19:30 – 21:30]

# GGSB2022 – Kutaisi and Tbilisi

Friday, September 16 (TSU, Tbilisi)

- School Part: Student Presentations -

## Plenary Session 8: (in total about 25) Student Presentations

[9:30 – 11:00]

### Introduction:

- Ghosh Pradeep            *GET\_INVolved Program at GSI*
- Eva Portius                *3<sup>rd</sup> QUALI-Start-Up Lectures (planned in 2023) at FZJ*

### Convener: Zaza Metreveli (AUG, Mechanical and Electrical Engineering)

- Engineering (AUG): Nika Putkaradze, Aleksandre Kobeshavidze
- Physics (TSU): Mariam Abuladze, Revaz Beradze, Medea Abramishvili

Coffee break [11:00 – 11:30]

### Convener: Bezhan Chankvetadze /Giorgi Jibuti (TSU, Chemistry)

[11:30 – 13:00]

- Chemistry – I: Natia Tchanturia, Nutsa Tsetskhladze, Ana Rakviashvili, Nino Chapidze
- Chemistry – II: Lika Kirtadze, Ani Rurua, Mariam Shvelidze, Saba Jorbenadze

Lunch break [13:00 – 14:30]

### Convener: Dimitri Kordzaia (TSU, Medical Faculty)

[14:30 – 16:00]

- Merab Chanturia, Giorgi Aleksanashvili, Nino Kharashvili, Rati Khorbaladze - (et al.,)

### Convener: Mikheil Chikhradze (GTU, Engineering physics department)

- Nini Kvintradze, Ana Palavandishvili, Mariam Ghvaladze

Coffee break [16:00 – 16:30]

- Summary GGSB2022 -

## Plenary Session 9: Next Steps

[16:30 – 17:30]

- Hans Ströher/Andro Kacharava            **Conclusions and Outlook**