



CERN Baltijas Grupas aktivitātes

Dr. Andris Ratkus

RTU Daļiņu Fizikas un Paātrinātāju Tehnoloģijas Institūta Vadošais Pētnieks

14.10.2024

- CBG Baltijas skola
- CERN Baltijas Konference
- CBG Studiju Programmas darba grupas aktivitātes
- Daļiņu terapijas centra iniciatīva

CBG Baltijas skola 2024



BALTIC SCHOOL OF HIGH ENERGY PHYSICS AND ACCELERATOR TECHNOLOGIES

2024 August 5-9
Kuldīga, Latvia



Lecturers

Leonid Rivkin (EPFL & PSI)
Maurizio Vretenar (CERN)
Jacqueline Keintzel (CERN)
Klaus Desch (University of Bonn)
Ramon Winterhalder (UCLouvain)
John Ellis (King's College London & CERN)
Timothy Cohen (EPFL, Univ. of Oregon & CERN)
Mark Thomson (University of Cambridge & STFC)

<https://indico.cern.ch/event/1396216/page/34429-about-the-lecturers>

Local organizers

Kārlis Dreimanis
Gundega Selga Horste
Silva Vītola
Kristaps Paļskis

<https://indico.cern.ch/event/1396216/overview>



CBG Baltijas skola 2024



5 dienas

31 student

13 valstis

8 tēmas

8 lektori

17 lekcijas pa 90min



- Quantum Field Theory & the Standard Model;
- Beyond the Standard Model Physics;
- Effective Field Theory;
- Higgs Physics at the LHC;
- Machine Learning methods in HEP;
- Accelerator physics;
- Future accelerators;
- Accelerator applications.



CBG Baltijas skola 2024



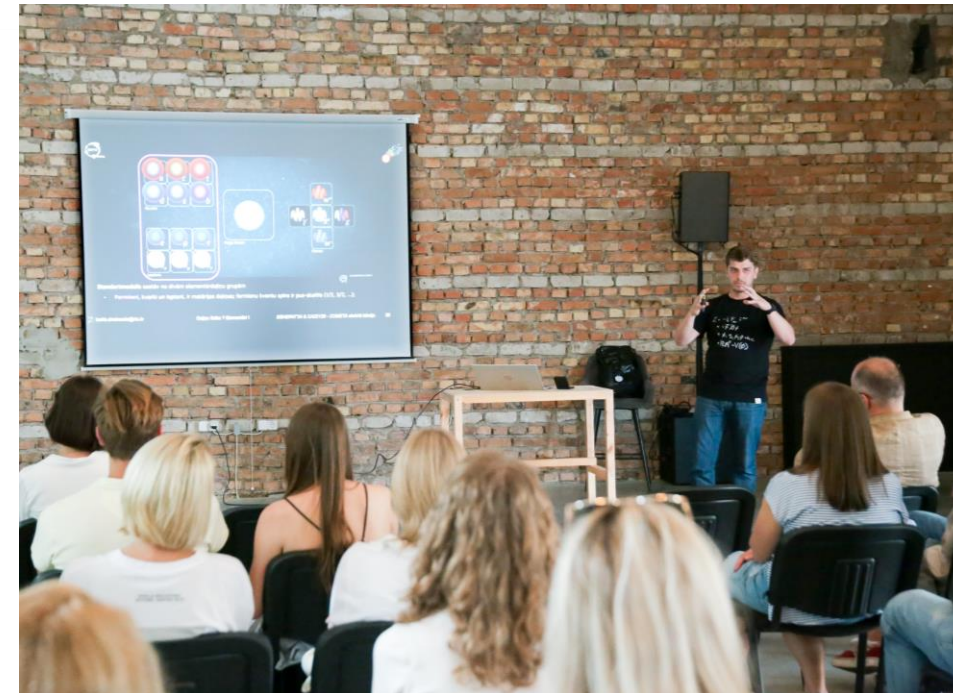
<https://visitkuldiga.com/>

Kuldīga



Image: © Ventspils Radioastronomijas Centrs

Irbene



Atvērtā lekcija

CBG Baltijas skola 2021–2024



Baltic School of High-Energy Physics and Accelerator Technologies 2021

Klapkalnciems, Latvia
August 2 - August 6, 2021

Lecturers:
Dr. Maurizio Vretenar
Prof. Dr. Jonathan Ellis
Prof. Dr. Yuri Dokshitzer
Prof. Dr. Matteo Cacciari

Scientific Program:

- Quantum Field Theory
- Quantum Electrodynamics
- Quantum Chromodynamics
- Standard Model
- Higgs Mechanism
- Beyond the Standard Model
- Collider physics
- Precision physics at the LHC
- Particle accelerator technologies
- Particle accelerator applications

Local Organizing Committee:
Dr. Kārlis Dreimāns (RTU, LV)
Prof. Dr. Toms Torims (RTU, LV)
Ms. Elina Grate (RTU, LV)
Ms. Aija Rīse (RTU, LV)
Andrijs Porebko (RTU, LV)

Scientific Committee:
Dr. Merlo Kadastik (NICPB, EE)
Prof. Dr. Mārcis Auziņš (LU, LV)
Dr. Brigita Abakveičienė (KTU, LT)
Prof. Dr. Renno Veitthal (TalTech, EE)
Dr. Yuhui Zadin (UT, EE)
Dr. Thomas Gajdosik (VU, LT)
Dr. Martijn Mulders (CERN)
Prof. Dr. Leonīds Ribickis (RTU, LV)
Dr. Jevgenijs Proskurins (RSU, LV)
Dr. Aleksas Mazeliauskas (CERN)

Further information:
<https://www.rtu.lv/en/hep/education/summer-school>
email: hep@rtu.lv
Registration deadline: June 25th

TAL TECH | TALLINN UNIVERSITY OF TECHNOLOGY

Baltic School of High-Energy Physics and Accelerator Technologies 2022

Saaremaa, ESTONIA
August 8–12, 2022

LECTURERS:
Prof. Jonathan Ellis
Prof. Yuri Dokshitzer
Prof. Fiura Djurabekova
Prof. Leonid Rivkin
Dr. Maurizio Vretenar
Dr. Walter Wuensch
Dr. Andi Hektor

SCIENTIFIC COMMITTEE:
Prof. Fjodor Sergejev (TalTech)
Prof. Veronika Zadin (UT)
Prof. Toms Torims (RTU)
Prof. Brigita Abakveičienė (KTU)
Prof. Mārcis Auziņš (LU)
Dr. Kristjan Kannike (NICBP)
Dr. Thomas Gajdosik (VU)
Dr. Jevgenijs Proskurins (RSU)

LOCAL ORGANIZING COMMITTEE:
Prof. Fjodor Sergejev (TalTech, EE)
Dr. Erki Kärber (TalTech, EE)
Prof. Veronika Zadin (UT, EE)
Veiko Vill (TalTech, EE)

SCIENTIFIC PROGRAMME:

- Quantum Field Theory
- Standard Model and Beyond
- Physics at Colliders
- Early Cosmology
- Dark Matter
- Gravitational Waves and New Physics
- Accelerator Technologies
- Accelerator Applications

Further information and fees:
Preliminary registration deadline: indico.cern.ch/e/CBG2022
June 1st

ktu | KAUNAS UNIVERSITY OF TECHNOLOGY

Baltic School of High-Energy Physics and Accelerator Technologies 2023

August 7 – 11
Palanga, Lithuania

TOPICS:
Quantum field theory
Quantum chromodynamics and electrodynamics
Standard model physics and beyond
Collider physics and precision physics at the LHC
Accelerator technologies and applications
Application of accelerators in medicine / Interface between machine and patient

LECTURERS:
Dr. Maurizio Vretenar (CERN)
Prof. Jonathan Ellis (UK)
Prof. Yuri Dokshitzer (LV)
Prof. Leonid Rivkin (CH)
Prof. Kārlis Dreimāns (LV)
Dr. Aleksas Mazeliauskas (DE)
Prof. Yuval Grossman (USA)
Prof. Joao Seco (DE)
Prof. Toms Torims (LV)
Prof. Tiziano Camporesi (PT, USA)

SCIENTIFIC COMMITTEE:
Dr. Maurizio Vretenar (CERN)
Prof. Christoph Schäfer (CERN)
Prof. Toms Torims (RTU, LV)
Prof. Mārcis Auziņš (LU, LV)
Prof. Karlis Dreimāns (RTU, LV)
Dr. Jevgenijs Proskurins (RSU, LV)

LOCAL ORGANIZING COMMITTEE:
Dr. Brigita Abakveičienė (KTU, LT)
Dr. Aurelijus Rinkevičius (VU, LT)
Dr. Asta Guobienė (KTU, LT)
Dr. Erika Raiščikaitė (KTU, LT)
Dr. Rasa Žostautienė (KTU, LT)
PhD Mindaugas Lickas (KTU, LT)

REGISTRATION DEADLINE: June 25, 2023

indico.cern.ch/event/1249285

RIGA TECHNICAL UNIVERSITY | Institute of Particle Physics and Accelerator Technologies

Baltic School of High Energy Physics and Accelerator Technologies 2024

August 5-9
Kuldīga, Latvia

Scientific Programme

- Quantum Field Theory & Standard Model
- Beyond the Standard Model physics
- Effective Field Theory
- Higgs physics at the LHC
- Topics in Machine Learning
- Accelerator Physics
- Accelerator Applications
- Future Accelerators

Scientific Committee

- Maria Brivio (University of Bologna, IT)
- Karolis Patamainas (University of Warwick, UK)
- Giovanni Pelliccioli (Max-Planck Institute, DE)
- Alessandro Cappola (CNR, IT)
- Valentin Cairo (CERN)
- Arnoud Ferrari (University of Padua, IT)
- Flavia De Almeida Dias (LBNL, US)
- Ramona Groeber (University of Padova, IT)
- Riccardo Fieschi (CERN, IT)
- Claudius Krauss (HEPFA, AT)
- Matteo Presilla (KIT, DE)
- Pietro Savani (University of Milano-Bicocca, IT)
- Kadir Ozdemir (Istanbul Kültür University, TR)
- Richard Ruiz (University of Nuclear Physics, PAN, PL)
- Kārlis Dreimāns (RTU, LV)
- Toms Torims (RTU, LV)
- Brigita Abakveičienė (KTU, LT)
- Christoph Schäfer (CERN)
- Maurizio Vretenar (CERN)
- Erika Karobainikova (LSMU, LT)
- Jevgenijs Proskurins (RSU, LV)
- Fjodor Sergejev (TalTech, EE)
- Aurelijus Rinkevičius (VU, LT)
- Gediminas Stankūnas (LEI, LT)

Lecturers

- Leonid Rivkin (EPFL & PSI)
- Maurizio Vretenar (CERN)
- Jacqueline Keintzel (CERN)
- Klaus Desch (University of Bonn)
- Ramon Winterhalder (UCLouvain)
- John Ellis (King's College London & CERN)
- Timothy Cohen (EPFL, Univ. of Oregon & CERN)
- Mark Thomson (University of Cambridge & STFC)

Local organizers

- Kārlis Dreimāns
- Gundega Selga Horste
- Silva Vītola
- Kristaps Paļskis

Registration deadline
14th of June

For more information:
<https://indico.cern.ch/event/1396216/>
hep@rtu.lv

CBG Baltijas skola 2025



Informācija sekos



4. CERN Baltjas Konference (CBC 2024)



**TAL
TECH**



Tallina, Taltech
15.-17.10.2024

Scope and scientific topics

The scope of CBC 2023 includes the presentation of the most recent results of the Baltic scientific community in CERN-related fields of research, as well as dedicated sessions for the discussion of national and regional level scientific policy, higher education and industry engagement topics.

The scientific topics include, but are not limited to:

- Particle physics: experiment;
- Particle physics: theory;
- Accelerator physics;
- Accelerator and particle detector technologies;
- Medical physics.



5. CERN Baltjas Konference (CBC 2025)



Informācija sekos



CBG Studiju Programmas darba grupas aktivitātes



European Master in particle Physics and Accelerator Technologies for Research and Industry (EMPATRI).

- 2025. maijā veiksmīgi noslēgts Erasmus Mundus Design Measures (EMDM) pilotprojekts.
- Programmas plāns:
 - Semestris I: Latvija (RTU + LU);
 - Semestris II: Igaunija (Tartu Universitāte);
 - Semestris III: Lietuva (Viļņas Universitāte + Kauņas Tehnoloģiju universitāte);
 - Semestris IV: Valsts, kurā tiek izstrādāts maģistra darbs.
- Viens kopīgs diploms (nepieciešams sakārtot normatīvos aktus visās 3 valstīs !).
- Plānots iesniegts Erasmus Mundus Joint Masters (EMJM) pieteikumu:
 - Projektu uzsaukums sagaidāms novembra sākumā.