



RIGA TECHNICAL
UNIVERSITY

Centre of High-Energy Physics and
Accelerator Technologies

Baltic School of “High-Energy Physics and Accelerator Technologies”



CERN Baltic Group

Kārlis Dreimanis

*on behalf of the CERN Baltic Group
and the local organising committee*

28.06.2021





- Since 2019 CBG has pursued an option of organising a regional training school in high-energy physics and accelerator research in the Baltic States;
- The school is planned to be an annual event aimed, mainly, at the first-year doctoral students and is to *rotate* through the Baltic countries;
- The first school is organised by the Riga Technical University (RTU) in Latvia;
- In Winter of 2020 we made a successful bid for COST funding form the COST Action CA16201 - PARTICLEFACE [more information on the action can be found [here](#)];



Baltic School 2020



- Baltic School 2020 planned to take place on the first week of August at the RTU camping “Ronīši” (later postponed to autumn due to a *small issue*);
- Week-long intensive school in HEP&AT;
- Four world-class lecturers *recruited*:
 - Yuri Dokshitser;
 - John Ellis;
 - Matteo Cacciari;
 - Maurizio Vretenar;

Postponed to Autumn 2020
September 28th – October 2nd
Klapkalnciems, Latvia

Local Organising Committee:
 Dr. Karlis Dreimanis (RTU, LV)
 Prof., Dr. Toms Talsins (RTU, LV)
 Ms. Elina Grate (RTU, LV)
 Ms. Aija Rūse (RTU, LV)

Scientific Committee:
 Dr. Mario Kadastik (NICPB, EE)
 Prof., Dr. Mārcis Auziņš (LU, LV)
 Dr. Brigita Abakovičene (KTU, LT)
 Dr. Jevgenijs Proskurins (RSU, LV)
 Dr. Fjodor Sergejev (TalTech, EE)
 Dr. Vahur Zadin (UT, EE)
 Dr. Thomas Gajdosik (WU, LT)
 Dr. Martijn Mulders (CERN, CH)
 Prof., Dr. Leonids Ribickis (RTU, LV)
 Prof., Dr. Andris Skuja (University of Maryland (US))

Lecturers:
 Dr. Maurizio Vretenar (CERN, CH)
 Prof., Dr. Jonathan Ellis (King's College London, UK)
 Prof., Dr. Matteo Cacciari (Université Paris Diderot (Paris-VII), FR)
 Prof., Dr. Yuri Dokshitser (Université P. & M. Curie (Paris-VI) CNRS, FR)

Baltic School of High-Energy Physics and Accelerator Technologies 2020

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

Organised by the **CERN Baltic Group**

Further Information:
<https://www.rtu.lv/en/internationalization/international-events/summer-schools>
 email: hep@rtu.lv

The project is supported by



Baltic School 2020/1



- The inaugural event was moved to the summer of 2021 - will take place in August in “Ronīši”;
- Secured COST funding roll-over from 2020;
- Secured same world-class lecturers;
- Managed to make a nicer poster!

[school indico page, [here](#)]

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 Comitee:

Dr. Kārlis Dreimanis (RTU, LV)
Prof. Dr. Toms Torims (RTU, LV)
Ms. Elina Grate (RTU, LV)
Ms. Aija Rūse (RTU, LV)
Andris Potrebko (RTU, LV)

Scientific Comitee:

Dr. Mario Kadastik (NICPB, EE)
Prof. Dr. Mārcis Auziņš (LU, LV)
Dr. Brigita Abakevičienė (KTU, LT)
Prof. Dr. Renno Veinthal (TalTech, EE)
Dr. Vahur Zadin (UT, EE)
Dr. Thomas Gajdosik (VU, LT)
Dr. Martijn Mulders (CERN)
Prof. Dr. Leonidas 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





- The organiser of this school is the CERN Baltic Group!
- This edition organised/hosted by RTU;
- Committees:

- Scientific Committee
- Local Organising Committee




Dr. Kārlis Dreimanis (RTU, LV)
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Dr. Martijn Mulders (CERN)
Prof. Dr. Leonīds Ribickis (RTU, LV)
Dr. Jevgenijs Proskurins (RSU, LV)
Dr. Aleksas Mazeliauskas (CERN)



Baltic School 2021 - Contents



- The inaugural edition is an intensive week-long school:
 - 18+ hours of lectures;
 - 6 hours of flexible discussion and exercise sessions;
- Preliminary timetable 
- Topics covered:
 - **QFT, QED, QCD;**
 - **SM, BSM;**
 - **Basics of MC, MC&NLO, jet substructure;**
 - **Accelerator physics & technologies;**
- Some networking activities;

Time	Monday	Tuesday	Wednesday	Thursday	Friday
07:00		Breakfast			
...					
08:15	Arrival and registration				
08:30					
08:45					
09:00		DS I (90 mins)	DS II (90 mins)	DS III (90 mins)	DS IV (90 mins)
09:15					
09:30					
09:45		Coffee	Coffee	Coffee	Coffee
10:00					
10:15					
10:30					
10:45					
11:00	Introduction	LB IV (90 mins)	LB VII (90 mins)	LB X (90 mins)	Close (90 mins)
11:15					
11:30					
11:45	LB I (90 mins)				
12:00					
12:15					Organised departure to Riga
12:30		Lunch		Lunch	
12:45					
13:00					
13:15	Lunch		LB VIII (90 mins)		
13:30					
13:45					
14:00		LB V (90 mins)		LB XI (90 mins)	
14:15			Coffee		
14:30	LB II (90 mins)				
14:45					
15:00		Coffee	LB IX (90 mins)	Coffee	
15:15					
15:30	Coffee break				
15:45		LB VI (90 mins)		LB XII (90 mins)	
16:00					
16:15					
16:30	LB III (90 mins)		Free time		
16:45					
17:00					
17:15			Keynote speaker		
17:30					
17:45					
18:00	Free time	Free time		Free time	
18:15					
18:30			School dinner		
...	Welcome event				
...					
23:00					

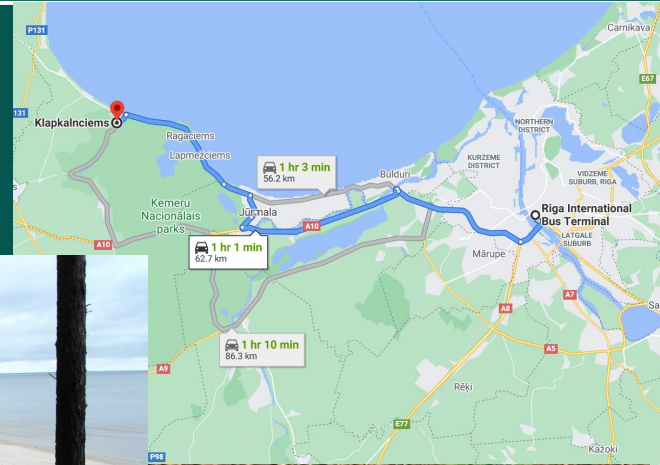


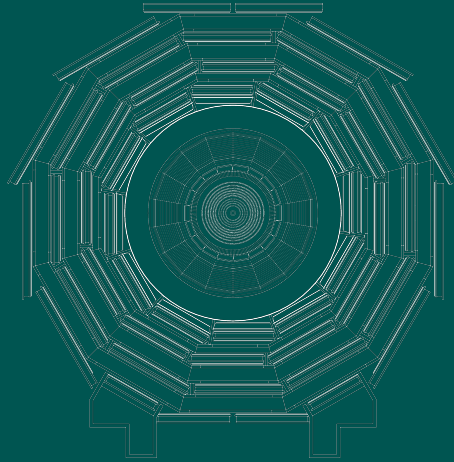
- We are limited to a maximum of 36 participants (trainees);
- The registration deadline was 25th of June;
- **Received a total of 69 applications from 24 countries!**
- Due to the financing mechanism, we are expected to prioritise COST eligible applicants;
- Additionally, the CBG has agreed to prioritise (to a degree) the Baltic participation;
- Exactly **36** applicants are **COST eligible**, of which **18** are **from CBG institutes**;



Summary

- Hope for a wonderful school on the sea-side!
- Aim to build relationships for our early-careers researchers!
- Hope to make this event a successful annual school in the Baltic region!
- With success, will look to extend this event to a 2-week school in the future!
- More pictures to come after the event! :)





Questions