



RIGA TECHNICAL
UNIVERSITY

Centre of High-Energy Physics and
Accelerator Technologies

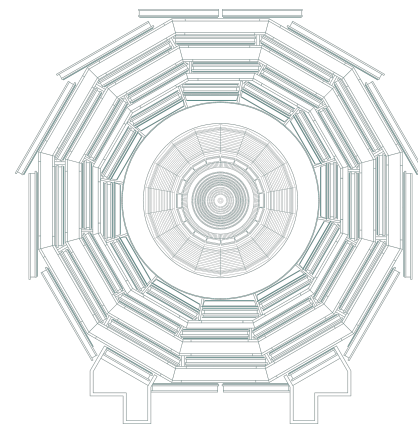
CBG Study Programme Group



CERN Baltic Group

Kārlis Dreimanis

02.06.2021





Step 1 : Complete!



- The entire documentation package has been fully approved by both RTU and UL and has been submitted for licensing!
- Big thanks to everyone who contributed and helped the efforts!
- Onto Step 2 - Implementation!



- We have five doctoral students who will start their degree in autumn 2021:
 - Antra Gaile (HEP);
 - Valts Krūmiņš (HEP);
 - Normunds Strautnieks (HEP);
 - Kristaps Paļskis (AT);
 - Luca Piacentini (AT);
- Additionally, at least one student will transfer to the new programme in autumn:
 - Andris Potrebko (HEP);
- There is, potentially, a space for a further student;

Implementation - study courses



Title	Type	ECTS	Responsible	Semester	Preparation <u>Deadline</u>
Particle Physics Theory	O,M	12.0	Yuri Dokshitzer	1st/2nd	31.08.2021
Accelerator Technologies	O,M	12.0	Toms Torims	1st	31.08.2021
Particle Detectors	O	3.0	Kārlis Dreimanis	1st	31.08.2021
Computing and Programming for Physics	O	3.0	Kārlis Dreimanis	1st	31.08.2021
Statistical Methods in Data Analysis	O	3.0	Mārcis Auziņš*	2nd	30.11.2021
Radiation Safety	O	1.5	Elīna Pajuste	2nd	30.11.2021
Introduction to Particle Physics	C	3.0	Yuri Dokshitzer	1st	31.08.2021
Mathematics for Particle Physics	C	6.0	Vjačeslavs Kaščejevs**	1st	31.08.2021
Relativity and Cosmology	C	6.0	Vjačeslavs Kaščejevs**	2nd	30.11.2021
Particles for Medical Physics	C	6.0	Jurijs Dehtjars	1st	31.08.2021
Data Science for Physics	C	6.0	Kārlis Dreimanis	2nd	30.11.2021
Computer Aided Design	C	4.5	Andris Ratkus	2nd	30.11.2021
Electronics Lab.	C	4.5	Māris Tērauds	1st	***

O - obligatory; C - choice; M - main;

* - Will be given by a different lecturer;

** - Must be prepared by another individual, Vjačeslavs was kind enough to step in as a placeholder for the preparation stage;

*** - Existing course;



** Courses



- The two courses marked with ** are in need of person-power;
 - Mathematics for Particle Physics 6.0 ECTS [1st semester];
 - Relativity and Cosmology 6.0 ECTS [2nd semester];
- Great potential to be covered by a guest lecturer/-s from the CBG!
- The **potential** list from our group we have compiled at the moment:
 - Aurelijus Rinkevičius;
 - Jaan Kalda;
 - Andrius Juodagalvis;
 - Thomas Gajdosik;
 - Stefan Groote;
 - Andi Hektor;
 - ..others?
- This is not a bug it is a feature, because...



The perspective...



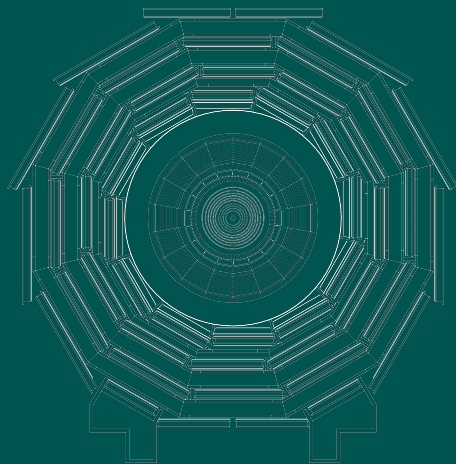
- This programme was never meant to be a RTU/UL programme only!
- We must now start look to the future to expand this into a regional programme;
- Involvement of guest lecturers form CBG is a good step in this direction;
- We must begin discussions on how to proceed in the next few years to achieve this ultimate goal!
- In addition to the programme becoming regional, we also must begin work on it being more flexible than currently prepared (once licensing is done);



Joint Master's programme



- We plan to submit an Erasmus Mundus Joint Measures application for a joint masters in “Particle Physics and Accelerator Technologies” in 2022;
- RTU are happy to take the lead; equally open to support another CBG member;
- Interested institutes should state their interest;
- Another tool in showing the necessity to expand the doctoral programme to a Baltic level!



Discussion