

Belle II Academy Bulletin #1

Dear participants,

We are very excited to host you in Bonn in about two weeks from now! In this bulletin you will find some important last minute information, details regarding where we meet on Monday and what you should prepare for the analysis part of the school.

The school will take place at the **Forschungs- & Technologiezentrum Detektorphysik (FTD)**, located at **Kreuzbergweg 26 in Bonn**. It's about a 15 minute walk from the main train station.



We will meet on Monday at 9:30 for the registration at which you can pay the school fee and receive your receipt / proof of payment. There also will be some coffee available. The school itself will start at 10:15 with a brief introduction and an overview of the week. After this we will start with the **brief lightning talks**. If you have not signed up for one, but still would like to prepare a 5-7 talk about what you wished you had known when you started your PhD, please go ahead! **Here is the link again:**

https://docs.google.com/spreadsheets/d/191Z3X5afFRLpKMZYMIKPcl5OwuK6aVTPadeRkB4_Tog/edit#gid=0

The meeting location is the **ground-floor large seminar room** (Room 0.052, but there will be signs).

The school will take part in **two blocks**:

- 1) *Hardware project in which you will build your own particle detector and carry out measurements with sources with it*

The project blocks will require you to use the *wine* software (or the use of windows). If you are using linux you can install wine-stable using your package manager. Similarly, if you are using a mac install *homebrew* and download the package.

Peter Lewis and Botho Paschen will provide short topical lectures and guide you through the different parts of the project.

- 2) *Analysis project in which you will determine the CKM matrix element $|V_{cb}|$*

Here we recommend that you install basf2 on your laptop. Detailed instructions on how to do this can be found here,

<https://confluence.desy.de/pages/viewpage.action?spaceKey=BI&title=How+to+run+basf2+on+a+laptop>

but we will also circulate more detailed instructions shortly. Markus Prim will provide you with short topical lectures on data analysis and statistics and guide you through the project. Dean Robinson (LBNL Theory Group) will provide you with a ca. 1.5h theory lecture, in which we will derive the theoretical expression of the semileptonic rate which you will be using for the determination of $|V_{cb}|$.

ELSA and Cyclotron tours:

The physics institute and its neighboring Helmholtz institute host a 3.5 GeV electron accelerator (ELSA) and a cyclotron. There will be a tour for all school participants on Monday late afternoon, and prior heading there we will have safety instructions. The cyclotron will be visited in 2 groups on Tuesday morning and in the afternoon.

Evening Speakers (Thursday, 20:00 with Meet & Greet Cocktails after)

We invited two former particle physicist on Thursday evening to provide us with an overview what their daily work in industry does look like today and what skill set they thought most useful to carry over: They are

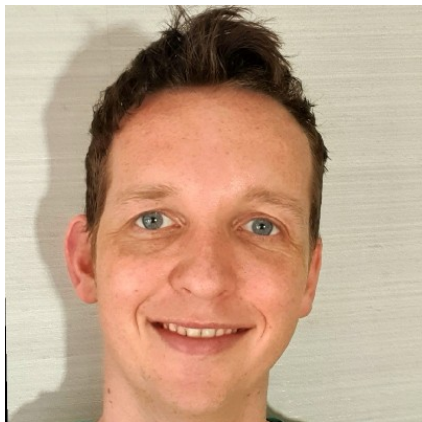
Sonja Lambertz who is working for Zurich Insurances as a Process Mining Data Engineer & Analyst

Zurich insurances is a global insurance company with over 56'000 employees operating in more than 210 countries.



Marco Van Woerden who is working as a Systems Architect at ASML

ASML is the world's leading producer of lithography systems used in the production of computer chips.



Getting around in Bonn

Currently Germany has an unbeatable offer: you can use all of public transport (with the exception of high speed trains, so be aware if you arrive on Sunday or Monday early morning of this distinction) by buying a so-called **9 euro ticket**. You can get them e.g. at the train station at the machine and it will be valid for your entire stay. With it you will be able to use local buses, or visit Cologne on one of the free evenings.

Monday Program at a glance:

	8/1/2022
	MONDAY
08:00	
08:30	
09:00	Registration at FTD, Introduction, Lightning Talks, Overview about the week ahead
09:30	
10:00	
10:30	
11:00	
11:30	
12:00	Lunch Break
12:30	
13:00	
13:30	Afternoon Briefing 1
14:00	Block 1
14:30	
15:00	
15:30	
16:00	
16:30	
17:00	
17:30	
18:00	Safety Lecture
18:30	ELSA Tour
19:00	Free Evening

We are excited and am looking forward to see you! We will send you another bulletin in about a week's time with a list of restaurants and other information about the school.

Florian, for the local Organizers