Belle II Academy 2026

Sunday 3 May 2026 - Thursday 7 May 2026

Tagungszentrum Blaubeuren

Scientific Programme

Software Workshop and Belle II Documentation

In this year's Belle II Academy, you will dive into some aspects of the Belle II Analysis Framework (basf2) through a highly practical, hands-on approach. Starting from the basics, we will introduce the collaborative tools used in everyday basf2 software development and show you how to write and optimise basf2 Python modules.

Through interactive lectures and exercises, you will learn how to use our GitLab, work with continuous integration and continuous development (CI/CD) pipelines, and understand the role of software testing. You will then put this knowledge into practice by fixing a real bug in the basf2 documentation yourself.

Finally, you will explore the powerful interplay between basf2 and Python by developing your own basf2 Python module and optimising it on the spot. By the end of our session, you will have gained practical skills that you can directly apply in your work.

Hardware Workshop

DIY Particle Detector Workshop (Silicon Diodes)

This hands-on workshop introduces a simple, low-cost DIY particle detector concept based on silicon diodes, enabling the detection of beta decays in background radiation or from beta radiators without expensive laboratory equipment.

The detector is based on the DIY Particle Detector design by Oliver Keller. Participants gain an understanding of how semiconductor detectors generate signals, and how a practical readout chain turns tiny charge deposits into measurable pulses.

The workshop combines detector fundamentals with core skills in analog electronics. We develop the signal path step by step (sensor, charge sensitive amplification, signal shaping and readout) and use LTspice to simulate key circuit blocks and design trade-offs. Participants assemble the detector electronics and take first measurement data.

While primarily designed as a teaching tool for high schoolers, the workshop also works well as a team-building and fun event. Prior experience in electronics is helpful but not required.

Entrepreneurship

Have you ever thought of starting your own company? Maybe not, but it may become relevant for you at some point in the future.

In this session a person (tbd) who has done exactly that is sharing their experiences and lessons learnt with you. You will also get an overview what is necessary to start your business and how to

make it a success story. Practical tipps and tricks conclude the session.

Organisation of Belle II

How is Belle II organized? Who is responsible for what? Where does the money come from? What are the EB and IB and what do they do?

These and other questions regarding the organization of the Belle II collaboration and the German Belle II-ErUM-FSP will be answered.

Presentation Skills

In this compact course, Sascha Vogel will discuss with you how to present scientific content professionally and convincingly.

In an all-round tour of the world of presentations, you briefly and concisely summarise what it takes to make an impression at scientific conferences, seminars or colloquia. The course is very practice-orientated and offers numerous exercises to directly apply and consolidate what you have learned.