

Practical Course in Particle Physics

at the Paul Scherrer Institut
(PSI, Switzerland), Summer 2025

Perform a real particle physics experiment at a PSI beam-line.

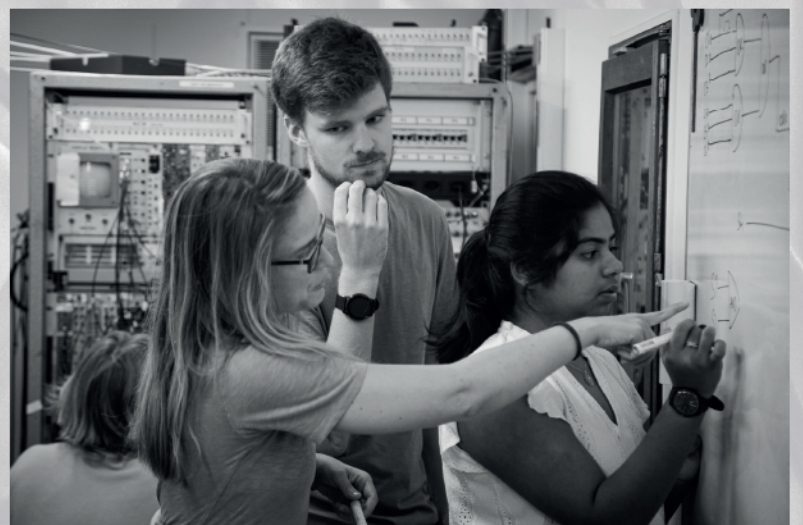
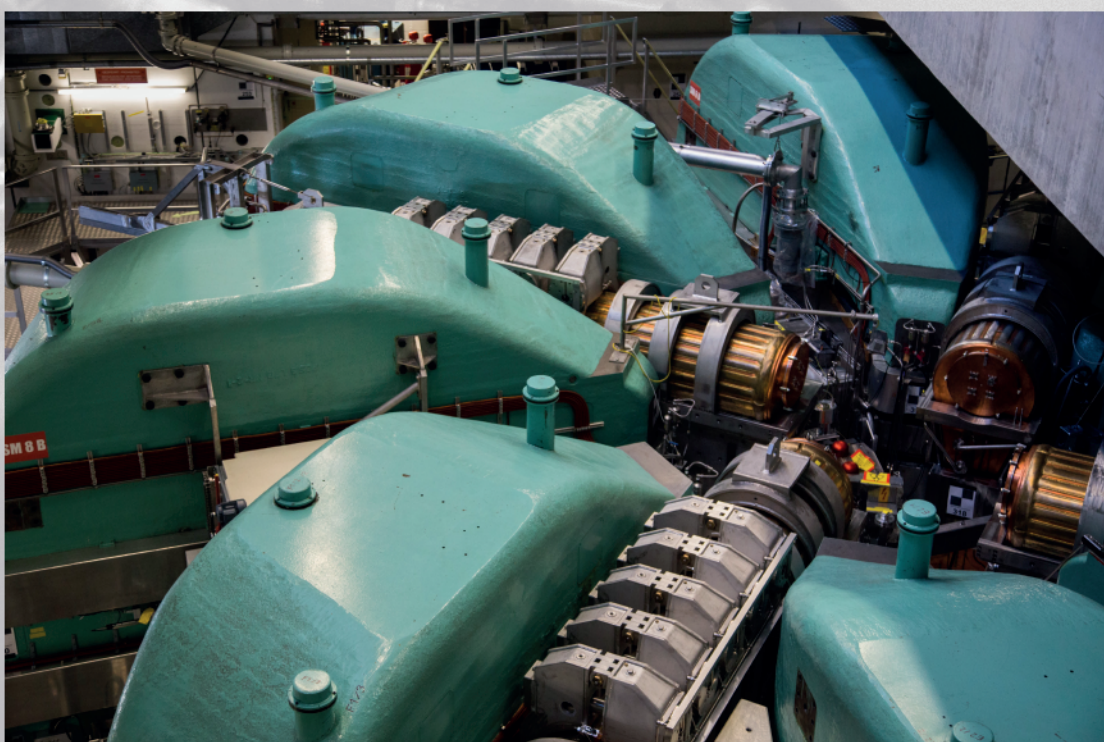
Learn experimental particle physics hands-on.

Join a group of 12-15 students from ETH Zürich and Heidelberg and Mainz Universities for one week of preparations in Heidelberg and two weeks of beam time at the world's most powerful accelerator at PSI.

Design and build your experiment from available detector components, take data during a 24/7 beam time. Analyse the data and write up the results.

Example measurements:

- Branching ratio $B(\pi \rightarrow e\nu)/B(\pi \rightarrow \mu\nu)$
- Panofsky ratio $B(\pi^- p \rightarrow n\pi^0)/B(\pi^- p \rightarrow n\gamma)$
- Lifetimes and decay parameters of muons and pions



**Next course:
25.8.-12.9.2025**

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Limited number of places, please register early!

The course (MVPSI) is part of the master programme of the faculty for physics and astronomy in Heidelberg