

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.

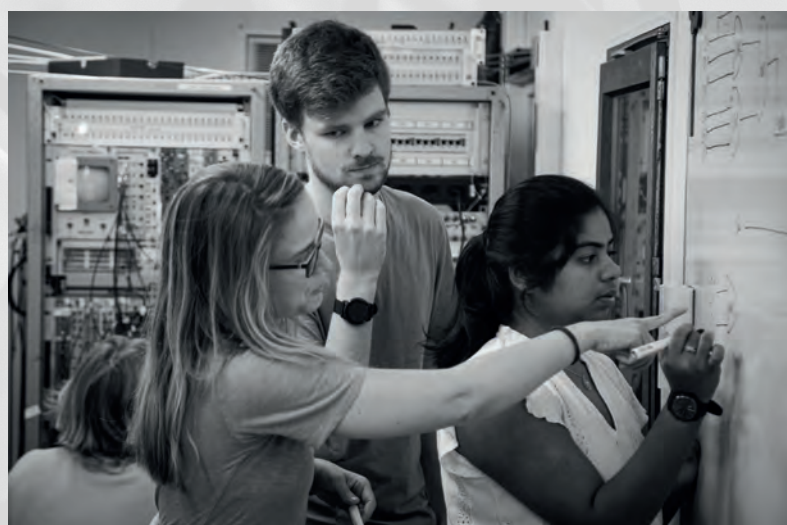
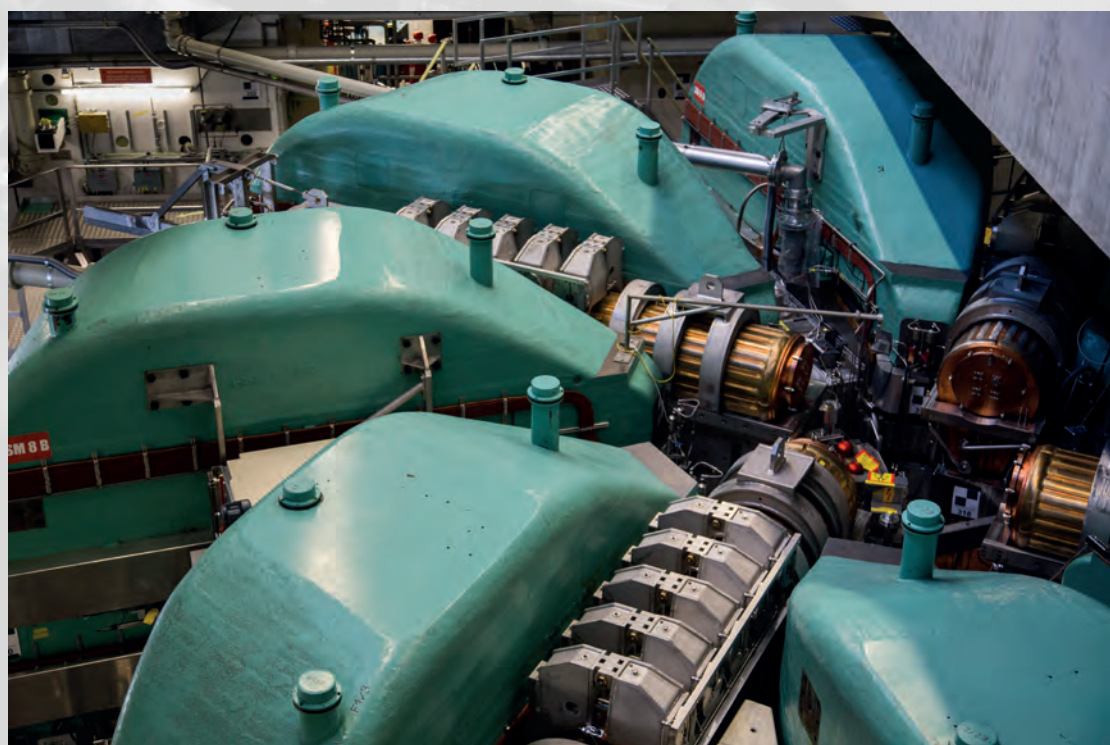
Learn experimental particle physics hands-on.

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

Please contact:

Niklaus Berger
(niberger@uni-mainz.de)

Limited number of places, please register early!

The course can be counted as Projektpraktikum as part of the physics master programme