

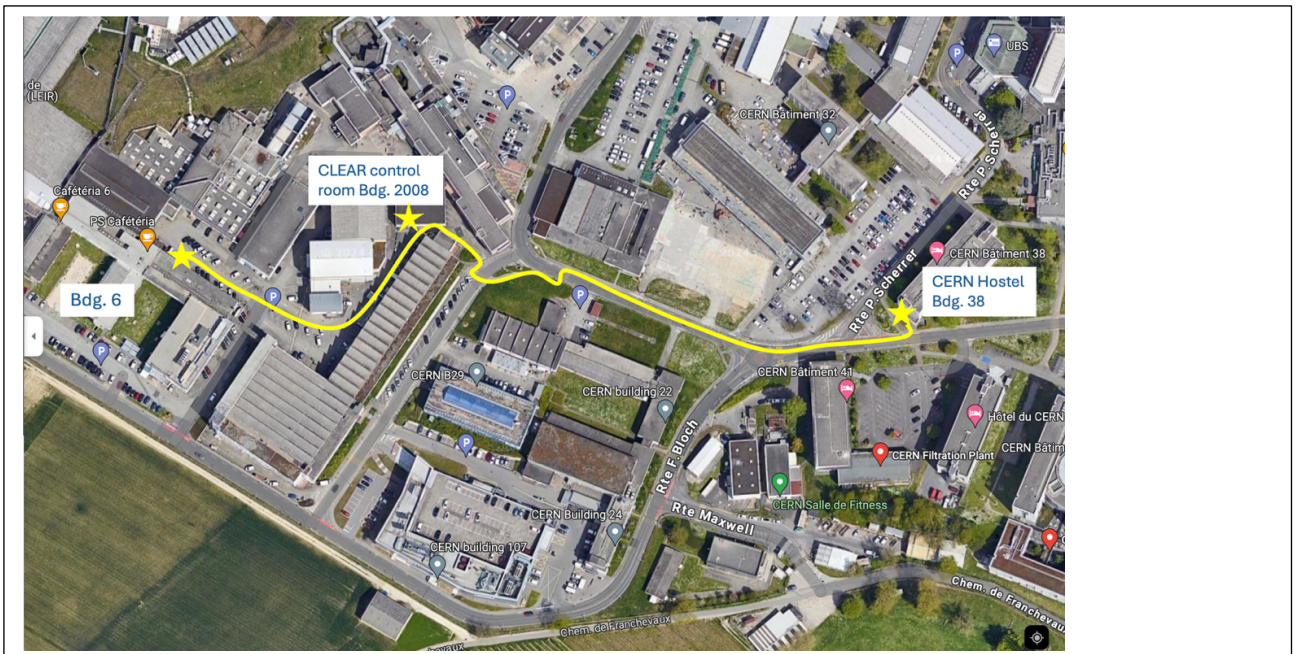
Dear Student of the ATSOA school

Welcome!

You will need a visitor card to enter CERN : CERN Service Desk should have contacted you to fill a form to get your visitor card. If you have not been contacted let me know.

The rooms are booked for you, from June 2<sup>nd</sup> to 7<sup>th</sup> and extra night you have to deal personally sending an email to [service-desk@cern.ch](mailto:service-desk@cern.ch)  
To find your way inside CERN that is almost a town please use the app of CERN Campus

<https://maps.cern.ch/?xmin=2488411.99&ymin=1119631.81&xmax=2498080.95&ymax=1125736.29&basemap=plan&mode=2D>



[Anyhow you have here the plan to reach the in production room](#)

Find below the distribution of the week of the ATSOA school per day search for your name.

In order for your guests to get free Wifi access, please note that they have to register before arrival by using following link:

[http://smb-dep.web.cern.ch/en/CERN\\_Housing/News](http://smb-dep.web.cern.ch/en/CERN_Housing/News) [[http://smb-dep.web.cern.ch/en/CERN\\_Housing/News](http://smb-dep.web.cern.ch/en/CERN_Housing/News)]

Find below also a description of the activities in the different facilities and their location within CERN

The course will start with a general introduction at 9h building 6/2-024 talk given by Fonteini

**ISOLDE Facility** at CERN <https://isolde.cern/isolde-facility>

The course will take place in building 508, Meyrin Site, Switzerland  
Proposed program for ISOLDE:

- Introduction and general presentation about the ISOLDE facility (~1.5 hour)

- First visit to the facility and explanation of different hardware systems (~2.5 hours)
- Introduction to the ISOLDE control system and software applications (~ 1 hour)
- Exercise 1: Mass / charge scans for different breeding times (~1.5 hour)
- Exercise 2: RFQ beam transmission for different RF power levels (~ 1.5 hour)
- Second visit to the facility and explanation of different hardware systems (~1 hour)
- Exercise 3: Phasing of superconducting cavities (~1.5 hours)
- Exercise 4: Beam energy measurement (~1.5 hours)
- Exercise 5: Machine scaling (~ 1.5 hour) (it depends of the time available)

The PSB Facility: <https://home.cern/science/accelerators/proton-synchrotron-booster>

- Presentation of the accelerator complex with a focus on the PSB operation and beam production.
- Quick tour in the CCC.
- Hands-on session could be done in the CCC, in the two work stations between the CPS-SPS islands. The allocated beam time will be in parallel with normal operation. Some topics to be done:
  - PSB control systems and scripting with Python
  - Accelerator tuning and adjustments (beam intensity, emittance, tune, energy spread,...)
  - Beam measurements (orbit, tune, chromaticity, beam profiles, ...)
  - More advanced topics (resonance/beta-beating compensation, instabilities, ...)

The CLEAR Facility: <https://clear.cern/content/welcome-clear>

- Introduction to the CLEAR Facility
- Before starting. *operation, one should check a few things with Matlab.*
- *Check list before starting the beam*
  - *Magnets*
  - *RF*
  - *Logbook*
- Working con CLEAR Electron Beam
  - Measurement of beam energy and Beam charge
  - Measurement of Twiss parameters
  - Measurement of bunch length
  - *Measure the photo-cathode quantum efficiency.*
  - Optimization of beam transport (playing with correctors and quadrupoles)
  - Play with the magnets and see the effects of off-centered/large/small beams.
  - *Observe the difference in the transverse profile between a short and a long train of bunches.*
  - *Find a way to observe the synchrotron light.*

Facility	June 3rd	June 4th	June5th	June 6th	June 7th
ISOLDE (IONS)	Vicente García Tavora	Vicente García Tavora	Philipp Schoch	Hannes Max Gurlich	Hannes Max Gurlich
	Pablo García Gil	Pablo García Gil	Corey Lehmann	Yulia Komar	Yulia Komar
	Konrad Altermüller	Konrad Altermüller	Alexandru Gabriel Stoica	Audrey ANNE	Audrey ANNE
	Marie Deseyn	Marie Deseyn	Mircea Coman	Florian LEMAITR E	Florian LEMAITR E
	Gregory Willmott	Gregory Willmott	Oleski Fomin	Jesús Sánchez Prieto	Jesús Sánchez Prieto
	Martha Reece	Martha Reece	Eleonora Diociaiuti	Alec Clapp	Alec Clapp
PSB (PROTONS )	Philipp Schoch	Philipp Schoch	Hannes Max Gurlich	Vicente García Tavora	Vicente García Tavora
	Corey Lehmann	Corey Lehmann	Yulia Komar	Pablo García Gil	Pablo García Gil
	Alexandru Gabriel Stoica	Alexandru Gabriel Stoica	Audrey ANNE	Konrad Altermüller	Konrad Altermüller
	Mircea Coman	Mircea Coman	Florian LEMAITR E	Marie Deseyn	Marie Deseyn
	Oleski Fomin	Oleski Fomin	Jesús Sánchez Prieto	Gregory Willmott	Gregory Willmott
	Eleonora Diociaiuti	Eleonora Diociaiuti	Alec Clapp	Martha Reece	Martha Reece
CLEAR (Electrons)	Hannes Max Gurlich	Hannes Max Gurlich	Vicente García Tavora	Philipp Schoch	Philipp Schoch
	Yulia Komar	Yulia Komar	Pablo García Gil	Corey Lehmann	Corey Lehmann
	Audrey ANNE	Audrey ANNE	Konrad Altermüller	Alexandru Gabriel Stoica	Alexandru Gabriel Stoica
	Florian LEMAITR E	Florian LEMAITR E	Marie Deseyn	Mircea Coman	Mircea Coman
	Jesús Sánchez Prieto	Jesús Sánchez Prieto	Gregory Willmott	Oleski Fomin	Oleski Fomin
	Alec Clapp	Alec Clapp	Martha Reece	Eleonora Diociaiuti	Eleonora Diociaiuti

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