

HERCULES

European School

Last update: 26/02/2025

Neutrons and synchrotron radiation for science

EXPERIMENTAL TRAINING

One week at:

- ▶ ALBA in Barcelona, Spain
- ▶ PETRA III and EU-XFEL in Hambourg, Germany
- ▶ KIT Light Source in Karlsruhe, Germany
- ▶ SOLEIL in Saint-Aubin, France

Four weeks at:

- ▶ CNRS, ESRF, IBS, ILL in Grenoble, France

9th March to 12th April

Grenoble, FRANCE

ON-LINE APPLICATION OPEN FROM
26th August to 6th October 2024

hercules-school.eu



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ORGANISATION

ORGANISED BY:

Université Grenoble Alpes (UGA)
Grenoble INP-UGA Institut d'ingénierie et de management

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- European Synchrotron Radiation Facility (ESRF)
- Institut Laue Langevin (ILL)
- Synchrotron ALBA
- Deutsches Elektronen-Synchrotron (DESY)
- European XFEL (EuXFEL)
- Karlsruhe Institute of Technology (KIT)
- Swiss Light Source (SLS) - Paul Scherrer Institute (PSI)
- ELETTRA sincrotrone Trieste
- Synchrotron SOLEIL
- Commissariat à l'énergie atomique et aux énergies alternatives (CEA):
Direction de la Recherche Fondamentale (DRF)
- Centre National de la Recherche Scientifique (CNRS):
Institut National de Physique & Laboratoires du Polygone Louis Néel, Grenoble
- Institut de Biologie Structurale (IBS)
- European Molecular Biology Laboratory (EMBL)
- Centre of Excellence of Multifunctional Architected Materials (CEMAM)
- Grenoble Alliance for Integrated Structural & Cell Biology (GRAL)
- Laboratoire d'Alliances Nanosciences-Energies du Futur (LANEF)
- Observatoire des Sciences de l'Univers de Grenoble (OSUG)
- DECTRIS

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GENERAL INFORMATION

HERCULES is a 5 weeks course designed for training students and scientists from European universities and laboratories in the field of neutron and synchrotron radiation.

It includes a common part during a week and a half, followed thereafter by two parallel sessions:

SESSION A: Physics and chemistry of condensed matter (53 full-time and 18 part-time* participants).	SESSION B: Biomolecular and soft condensed matter (22 full-time participants).
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* part-time participants will attend only lectures on weeks 1, 2, 3, and 5

It is mainly organised from Grenoble, from the European Schools Office on the Presqu'île Scientifique, where the Institut Laue Langevin (ILL) and the European Synchrotron Radiation Facility (ESRF) are also located.

The HERCULES course includes lectures (for all participants) together with practicals, labs, tutorials, visits of large scale facilities, and a poster session (for full-time participants only).

The HERCULES 2025 school will be organised on site for all full-time participants and online for the part-time ones. The weeks 1, 2, 3 and 5 will take place at **ILL** and **ESRF**, both located on the **EPN campus** (see map on page 11), while week 4 (program from 29 March to 5 April) will take place outside Grenoble, at one of the following partner facilities:

- the Spanish synchrotron source **ALBA** near Barcelona,
- the German synchrotron radiation facility Deutsches Elektronen-Synchrotron (**DESY**) and the **European XFEL** in Hamburg,
- the German synchrotron light source **KIT** in Karlsruhe,
- the French synchrotron source **SOLEIL**, near Paris.

The language of the course is **English**. The time zone is **Central European time (UTC+1)**.

TIMES OF LECTURES, PRACTICALS, LABS AND TUTORIALS

LECTURES organised from Grenoble

Most of the time (see timetables enclosed in the brochure):

- ▶ in the morning from 8:40 to 12:30 with a 30' coffee break at 10:20
- ▶ in the afternoon from 14:00 to 17:50 with a 30' drinks break at 15:40

PRACTICALS, LABS, AND TUTORIALS organised from Grenoble

All practicals, labs, and tutorials start at 9:00 in the morning and 14:00 in the afternoon, and last about 3.5 hours. Practical correspond to hands-on experiments at large scale facilities ILL and ESRF, Labs correspond to hands-on experiments in CNRS, ILL or IBS laboratories, while tutorials consist mostly in data treatment, without the experimental part.

IN CASE OF EMERGENCY - Usefull Phone Numbers

PHONE NUMBERS IN CASE OF EMERGENCY

SAMU (Emergency services)*	☎ 15
Police*	☎ 17
Pompiers (Fire brigade)*	☎ 18
Appel d'urgence européen (European emergency call)*	☎ 112
Centre Anti-Poison (Poisons unit)	☎ +33 (0)4 76 42 42 42

PHARMACY

Pharmacie du Caducée
68 avenue des Martyrs, Grenoble

DOCTORS (NEAR THE RESIDENCE HOTEL)

Roux Jean-François	☎ +33 (0)4 76 46 89 33
3 rue Arago, Grenoble	☎ +33 (0)6 89 94 42 12
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26 rue Félix Esclangon, Grenoble	

* Free phone number

INFORMATION ABOUT UGA FIGHT AGAINST DISCRIMINATION



The University Grenoble Alpes, for many years now, have had a policy aimed at promoting equality between men and women among our staff and students, fighting against discrimination and working to make our territory welcoming.

<https://www.univ-grenoble-alpes.fr/about/societal-and-environmental-commitments/equality-and-the-fight-against-discrimination/>

If you are victim or witness of sexual and gender-based violence (SGBV), discrimination or harassment taking place at HERCULES School, you can:

- get in touch with HERCULES' direction
- use the following form to report the incidents to Université Grenoble Alpes
<https://www.univ-grenoble-alpes.fr/about/societal-and-environmental-commitments/ending-sexual-and-gender-based-violence-sgbv/>
- get in touch with your home university.

Code of conduct for participation in the HERCULES 2025 school, Grenoble, France.

This code of conduct establishes the standards for expected and unacceptable behavior within the context of the HERCULES School.

General Conduct

Individuals and teams participating in the HERCULES2025 are expected to conduct their activities with the utmost integrity and adhere to the highest ethical standards. All individuals should be treated with respect, and participants must abstain from any form of discrimination, harassment, or bullying during any activity related to the project. In instances where members witness or become aware of such behavior by others, they are requested to actively prevent, report, and/or mitigate the offensive conduct.

Research Conduct

Participants shall uphold the principles of scientific integrity in their research activities as part of the HERCULES2025. Scientific misconduct, including fabrication, falsification, or plagiarism, is strictly prohibited. Involuntary scientific errors or misinterpretations that may arise during the research process are not considered misconduct but should be promptly addressed. Participants are expected to avoid detrimental research practices, maintain fairness and objectivity as peer reviewers, correct any errors in their own work promptly, include all deserving authors in publications, and appropriately credit prior work in citations.

Team Interactions

We strive to exhibit considerate speech and actions, actively recognizing and respecting the boundaries and experiences of our fellow community members. Specifically, we aim to:

- Respect the time limits and agenda for pre-planned meetings.
- Ensure inclusive decision-making processes.
- Uphold honesty, accountability, and transparent communication.
- Refrain from making false or offensive statements and avoid aggressive/passive aggressive behaviors.
- Refrain from making personal comments or comments on behavior, focusing on the content and scientific analysis during discussions.

Reporting

All participants should report instances of unacceptable conduct promptly to the HERCULES2025 organizers.

All information provided will be treated as anonymous and action will be taken to ensure appropriate behavior in meetings and written interactions going forward.

This code of conduct was adapted from

[PinkSkyLab](#)

[AMS](#)

[List of codes of conduct compiled by IGAC](#)

►► ACCOMMODATION

Participants will stay in the following hotel (except the “local ones”):

Séjours & Affaires Grenoble Marie Curie - Apparthotel

58 rue Félix Esclangon, 38000 GRENOBLE

Tel : +33 (0)4 76 84 72 22

Mail: grenoble.mariecurie@sejours-affaires.com

Web site: <https://www.sejours-affaires.com/uk/hotel-residence-aparthotel-grenoble-7.html>

Small studio flats are booked from:

Sunday 9th March evening to Saturday 29th March morning.

Then, after the week in partners sites:

from Saturday 5th April evening to Saturday 12th April morning.

The hotel is close to bus and tram stops. The suites are fully-equipped, furnished, and fitted-out and include: a living room with a large bed, a **television**, an office area, a **fully-equipped kitchen** (hotplate, refrigerator, microwave, and dishes), and bathroom. Cleaning is carried out between Tuesday and Thursday according to the cleaning ladies' schedule. For optimal cleaning, we thank you for leaving your apartment as tidy as possible.

- ✓ Weekly cleaning with change of towels, vacuuming.
- ✓ The kitchen area is not cleaned for safety reasons.
- ✓ Wi-Fi access
- ✓ Upon arrival you will have bed linen and towels, toilet paper, kitchen cleaning kit, bathroom kit.

►► Accommodation is also organised for the nights in Barcelona, Hamburg, Karlsruhe, and in Paris area, from Saturday 29th March evening to Saturday 5th April morning.

►► During the week in partners sites, a room will be specially booked in Grenoble to store your luggage during the travel outside Grenoble.

►► WELCOME ON SUNDAY EVENING

Participants are expected to arrive in Grenoble on **Sunday 9th March 2025**.

Hotel reception will be open from 5:00 PM to 9:00 PM.

When you arrive in Grenoble, whether it is by train, plane, or car, please **register at the “HERCULES welcome desk”** in the **Appart Hôtel - Séjours & Affaires Grenoble Marie Curie**, where you will be **accommodated**, situated not far from the train station, at a few minutes' walk or by tram (see map on next page). Members of HERCULES committee will be present **between 6:00 PM and 8:30 PM**.

A 'buffet' for dinner will be served at the hotel from 7:00 to 8:30 PM.

If you arrive after 8:30 PM, please follow the instructions below:



RESIDENCE ENTRANCE PAST THE OPENING HOURS

If you arrive after 9:00 PM, please refer to the hotel procedure document from sent with the email “Final information before your arrival”.

► MEALS IN GRENOBLE



Breakfast (included with the room in the fees):

From Monday to Friday: Continental breakfast buffet is available from 7.00 to 9.30 A.M in the hotel.

On Saturday and Sunday: on Friday, 2 breakfast-boxes will be left in the apartments for the weekend.

Lunch:

Lunch will be taken in the ILL/ESRF restaurant during the stay in Grenoble (excluding the weekend).

This restaurant is close to the lectures place. We shall provide a canteen card which will be credited by ESRF for week-day lunches (included in the fees).

Coffee is also available next to the restaurant.

Dinner:

Dinners and weekend meals are not supported by HERCULES. There are many reasonably priced restaurants near the hotels or it will be possible to cook in your studio flat.

► EVENTS

► Ice breaking party at the Restaurant Fantin Latour. On 14 March, 2025, 19:30.

Maison Fantin Latour - Stéphane Froidevaux
1 rue du, Rue Général de Beylie, 38000 Grenoble

How to go to the restaurant from the hotel:

Take the tramway, B line, at Cité Internationale stop.

Gett off at Hubert Dubedout, Maison du tourisme.

Head east on Rue Raoul Blanchard towards Rue Vicat, 230 m

Turn right onto Rue Général Marchand, 45 m

Turn left onto Rue Abbé de la Salle, 75 m

Turn right onto Rue Général de Beylie. The restaurant entrance will be on the left.



►► Poster Session at ESRF. On 14 & 19 March, 2025.



You have to prepare one poster about your research work.

Size A0, portrait format.

The poster session will take place in 4 sessions: March 14th and 19th, from 4:00 p.m. to 5:00 p.m. and from 5:00 p.m. to 6:00 p.m. (13 or 14 posters in A and 5 or 6 in B each time).

All posters will be displayed from March 14th to 19th at ESRF (A in the mezzanine, B in the entrance hall)

At the end of the second session, 2 prizes will be awarded in session A and 1 prize in session B, for each day of presentation.

►► Mountain day: Snowshoes outing and activities. On Sunday 16 March, 2025.



Meeting Point from 8:45 a.m. to 9:00 a.m. in front of the Hotel.

Bus Departure from Grenoble: 9:00 SHARP / Meeting point at the bus for the return at 16:00

The outing is organised in the mountain near Grenoble, in the Chamrousse ski station.
You will be accompanied by professional guides on site.



Poles and snowshoes are provided. =>

You will need WATERPROOF high-top walking or winter shoes.

If necessary you can rent it.

A shop in Grenoble where you can rent shoes for snowshoes outing: <https://www.ski-probel.com/>



Ask for in French **“Chaussures pour sortie raquettes”**



and NOT



(too big for snowshoes)



(shoes for snowboard)

For those who do not wish to go snowshoeing but who want to enjoy the mountains, activities will be offered: construction of teepees, igloos and walks.

IN SHORT, for all, don't forget to bring with you:

- Warm clothes (gloves are very important)
- High and above all waterproof hiking shoes, snow boots with a solid sole
- Sun glasses and cream (if the weather is sunny...)
- Picnic for lunch

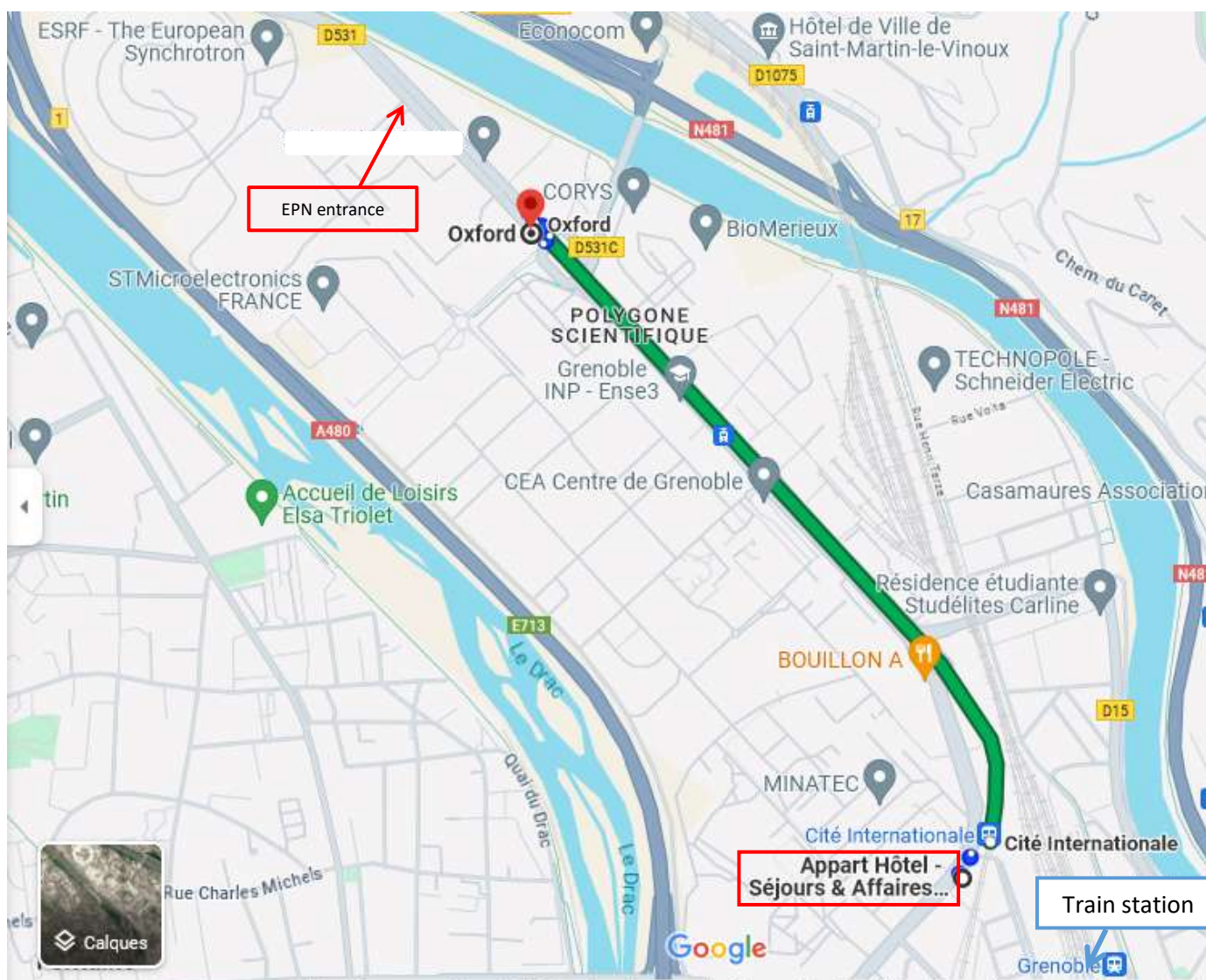
MAP AND INFORMATION ABOUT THE IMPORTANT LOCATIONS:

The map below shows the Grenoble train station, the Séjours & Affaires Grenoble Marie Curie - Apparthotel, where the participants will be accommodated in Grenoble, the tramway stations and EPN location.

To go to EPN campus (ILL, ESRF, CIBB, IBS... for lectures, visits, practicals, tutorials...):

The way to go from the **Apparthotel** to the EPN campus (weeks 1, 2, 3 and 5):

- ▶ Take the **B line**, “**Oxford**” direction, at tram stop “Cité internationale”
- ▶ Get off at the “Oxford” stop, terminus.
- ▶ Walk 750m (about 9 minutes), the European Photon & Neutron Science Campus (EPN), 71 Av. des Martyrs, Grenoble, will be on your left.



To enter the EPN campus, you will have to bring:

- **YOUR PASSPORT OR ID CARD**, on the first day
- **YOUR EPN CAMPUS BADGE**, on the following days



MAP & MEETING POINT ON MONDAY 10th March MORNING, FOR THE 1st DAY OF THE SCHOOL on EPN campus / ILL.

- **From 8:40** (depending on the participants*) you will have to go at the **site entrance of the EPN campus**. After having shown your passport or ID card, your EPN badge will be distributed to you there (you will be photographed and the badge will be issued on site).

**this information will be given before HERCULES start.*

Then, you will be guided to the ILL50 building, where a 4-digit code will be given to you, necessary to enter the ZAC (Zone Accès Contrôlé) of ILL.

IMPORTANT:

Your EPN badge and this code will be needed every day to enter the EPN campus and the ZAC

Members of the HERCULES organisation team will be on hand to help you and give you a HERCULES bag containing information and goodies inside.

- Then, the **meeting point for the HERCULES welcome** will be **at 10:30 at ILL 4 (ZAC)**, in the Chadwick Amphitheater.
- In the map of the EPN campus shown below, the site entrance and the locations where the lectures will take place are enlightened (ILL4, CIBB, and central ESRF buildings).



■ ESRF	■ IBS				● Site entrance
■ ILL	■ EMBL				● Science building
ESRF		① ILL1	⑤ ILL5 Reactor building Experimental hall		● CIBB building
(A) Central Building & Reception		② ILL2	⑥ ILL22 Experimental hall		✚ Medical Service
(B) Visitor Centre		③ ILL3 ILL stores	⑦ ILL7 Experimental hall		🛏 Guest House
(C) Safety training		④ ILL4 Chadwick amphitheatre Seminar room & Offices	⑧ ILL17		🍴 Restaurant & Cafeteria
(D) Experimental Hall			⑨ ILL9 Works council building		📖 Scientific Library
(E) Control Room			⑩ ILL26		
			⑪ ILL19 IT building		

LAPTOPS AND WIRELESS ACCESS on EPN CAMPUS:

- ▶ The participants are strongly recommended to bring their laptops, as they will need it for most of the tutorials, and for some of the labs and practicals.
- ▶ The participants will be able to connect to the ILL and EPN WiFi by using the login and password of their **ILL user accounts** (created in the ILL user club).

> **From the ILL:** connect to "ILL Open".

> **To connect to the ESRF WiFi (EPN Visitors) please note that:**

In the following EPN Campus areas: ESRF, ILL, EMBL and common buildings

Via EPN Visitors network

- ▶ *Login:* your e-mail address as registered in your ESRF User Portal account
- ▶ *Password* in lowercase: the password you use to login to the ESRF User Portal

Via EDUROAM network

- ▶ If you have a valid account in another Eduroam compliant institution

LOCATION OF THE HERCULES OFFICE:

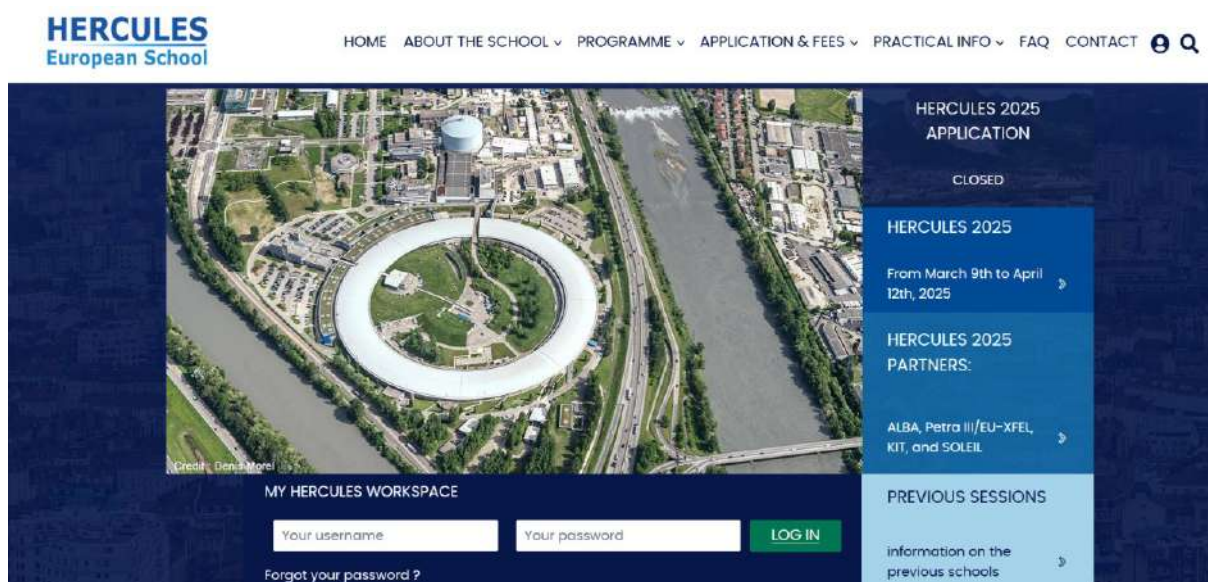
Clotilde, Runchen, Youlia, and Joseph will answer your questions and help you during the weeks in Grenoble.

- ▶ **Weeks 1, 2, 3 and 5:** in the **ILL 50 building**,
ZAC entrance, just before the entrance turnstiles
room 127 or 130 (1st floor).

GENERAL INFORMATION ABOUT THE HERCULES WEBSITE

<https://hercules-school.eu>

In case of any problem, please **report at** [webmaster at hercules-school.eu](mailto:webmaster@hercules-school.eu)



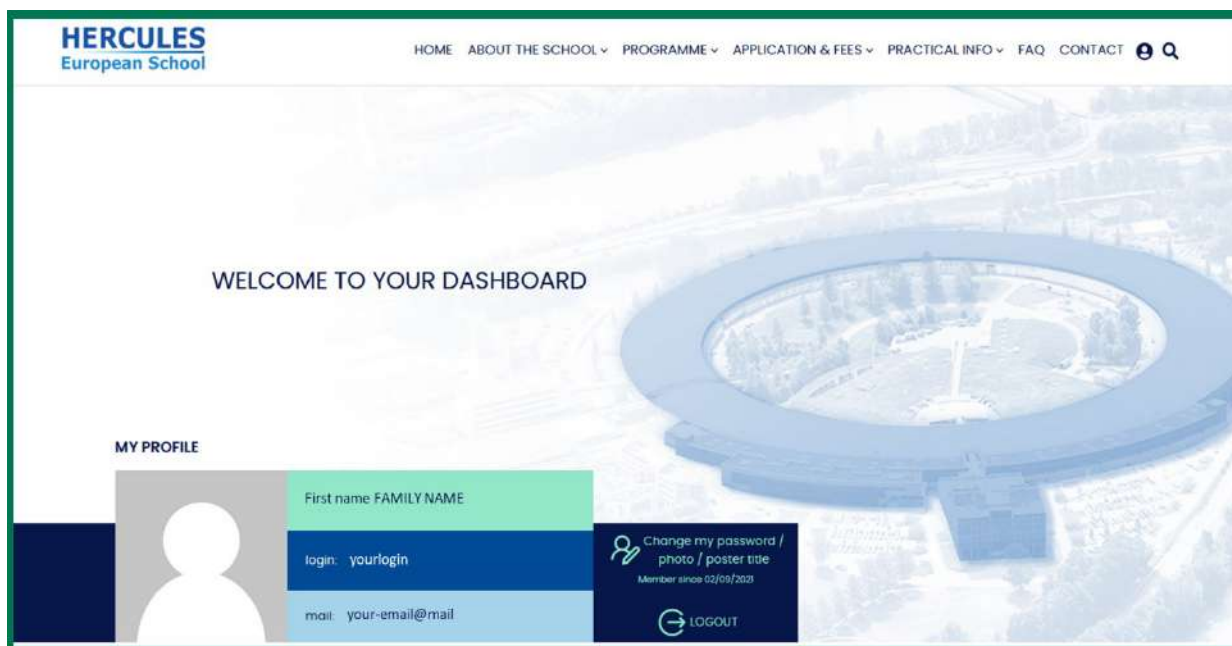
The Hercules participants will be brought to use the HERCULES website a lot during the school, for the schedule, the evaluations of the classes, the portrait galleries, ...

To do so, the participants will have to **connect everyday with their login and password**, and then go on their **dashboard** [MY DASHBOARD](#) → <https://hercules-school.eu/my-dashboard>

If still logged in from the previous day, it is recommended to **refresh this page every morning**.

On the next pages are screen captures of “MY DASHBOARD” web page, from the top to the bottom of the page, followed by some explanations.

Note that the website also contains some piece of additional practical information, e.g., about the poster session, public transportation in Grenoble, ... (no need to be connected for these).



► MY PROFILE

The participants can see here the information about their profile on the website and, by clicking on “Change my password / photo / poster title”, they can **change** their **password**, their **photograph** or, for the full-time participants only, their **poster title**.

If they wish to change their login or e-mail address, they have to send an e-mail to [hercules at hercules-school.eu](mailto:hercules@hercules-school.eu).

INFORMATION TO ALL PARTICIPANTS:

Short notice on your DASHBOARD: [click here](#)

Some important information will be posted there regularly. Please check this page about once every two weeks before the school, then everyday during the school.

Before sending an email for a specific question, please first check the [Frequently Asked Question \(FAQ\) page](#). Thanks

The schedule for the Hercules 2025 lectures and social events is now available (see “MY SCHEDULE”).

HERCULES NEXTCLOUD



The **global schedule** (PDF file) is available on our cloud, and will be updated regularly (click on the icon above). The **slides and videos of the lectures** will also be deposited there.

New ! The Hercules 2025 booklet is now available on our cloud.

MY DOCUMENTS

File	Size
ul32_test_user132	36.94 KB

COMMON DOCUMENTS

Session / Group	File	Size
ALBA group	tl9_test_alba	36.94 KB

► INFORMATION

This part (some typical extracts are shown here) will be updated constantly during the school. **All last-minute information and useful links will be posted here.**

The final evaluation of the school will also be accessible from here.

► MY DOCUMENTS

All **personal documents** like, e.g., the nominative certificate of attendance, delivered at the end of the school, will be uploaded in this space, and will be visible only by the concerned participant.

► COMMON DOCUMENTS

All documents common to the entire Hercules session (e.g., the booklet) or to a specific group (e.g., concerning the travel to the partner facility), will be deposited here, and visible only by the concerned participants.

E.g. 2024:

The screenshot displays two side-by-side panels from the Hercules 2025 interface. The left panel, titled 'MY SCHEDULE', shows a calendar view for 'today FEB 26 – MAR 3, 2024'. It lists events for Monday, February 26, 2024, including a welcome session at 08:30 am, an introduction to large scale facilities at 09:00 am, ESRF/ILL badge distribution at 11:00 am, an introduction to X-ray and neutron interactions at 02:00 pm, an ESRF presentation at 04:10 pm, an ILL presentation at 05:05 pm, and a UGA presentation at 05:50 pm. The right panel, titled 'EVALUATION', shows a 'FOLLOW-UP OF EVALUATIONS' section with two entries. The first entry is 'INTRODUCTION TO THE SCIENCE AT LARGE SCALE FACILITIES: NEUTRON, SYNCHROTRON AND XFEL SOURCES' dated MON 26/02/2024, with an 'EVALUATE' button. The second entry is 'INTRODUCTION TO INTERACTIONS OF X-RAYS AND NEUTRONS WITH MATTER (1/2)' dated MON 26/02/2024, also with an 'EVALUATE' button.

► MY SCHEDULE

The participants will see their complete schedule during the school (except week 4, for the partner sites):

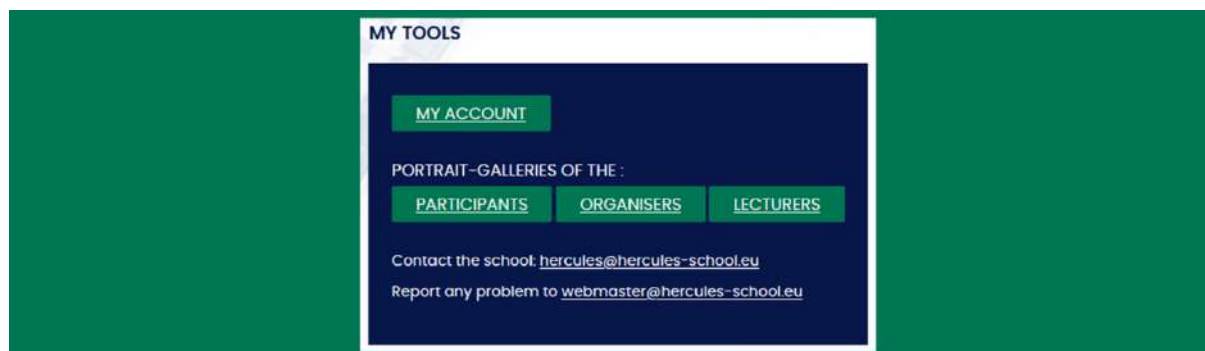
- **Lectures** from the common (●), A (●) or B (●) session
- **Practicals / labs / tutorials** in small groups from the A (●) or B (●) session
- **Other events** (welcome cocktail, visits, poster session, ...)

By clicking on one of these events, additional information can be found: lecturer/instructor for lectures/hands-on trainings, summary, location (for on-site participants) and Zoom link (for online participants) ... **Careful**: there can be different Zoom links for the various courses!

Always use this “MY SCHEDULE” tool to find the lecture room or Zoom link

► EVALUATION

The participants will have to fill in day-by-day the evaluation for each lecture, practical, ... The date and time, as well as the lecturer/instructor names, are recalled after clicking on “EVALUATE”, then a few questions are asked (it will take you only a few seconds to a few minutes, if you leave comments, for each of them). The evaluations will automatically appear here once they are passed and the “follow-up of evaluations” will allow the participants to check that they are up to date with their evaluations.



► MY ACCOUNT

A few additional information is given here, in particular, the **session and group** of the participant, as well as the **reference number** (a01, a02, ..., b01, b02, ...) used in the booklet for the practicals / labs / tutorials schedules in Grenoble (full-time participants only).

This yields to the same web page as when clicking on the icon  in the top bar menu.

► PORTRAIT GALLERIES

The **photographs** of all participants, organisers (in Grenoble and partner sites), and lecturers teaching in Grenoble are displayed after clicking on the corresponding button.

PARTICIPANTS portrait gallery: The participants can use the **SEARCH tool** (see below) to find a given participant (through his Surname / Family name, Name, or Reference number) or to filter on the A or B session or on a group (part-time, full-time, ALBA group, ...). By clicking on the photograph of a given participant, the information on his/her session and group is given, and an e-mail can be sent to him/her.

LECTURERS and ORGANISER portrait galleries: Similarly, a search on the Location / Partner site (Grenoble, ALBA, ...) can be done for the organisers, while a search on the session (common, A, or B) can be done for the lecturers, in addition to the search by name.

LIST OF FULL-TIME PARTICIPANTS:

The site and group for week 4 are indicated, as well as the reference number (#) for practicals taking place during weeks 2, 3, and 5.

SESSION A

FAMILY NAME	First name	Site	Group	#
ABBRUCIATI	Federico	DESY-XFEL	A2	a01
ANTONY	Isabel	DESY-XFEL	A1	a03
ARANTES MOYA	Pedro Henrique	DESY-XFEL	A2	a04
BARLETTANI	Diego	ALBA	A3	a05
BENHADJIRA	Abderrhmane	SOLEIL	A2	a06
BUCCOLIERO	Giuseppe	SOLEIL	A1	a07
CAI	Yi-Hong	ALBA	A2	a08
CANET	Lucie	ALBA	A1	a09
CHANG	Chia-Yu	ALBA	A2	a10
CHARKIOLAKIS	Emmanouil Nikolaos	DESY-XFEL	A1	a11
COELHO	Henrique	SOLEIL	A3	a12
DE FRENZA	Alessandro	KIT	A1	a13
DECRAUSAZ	Brigitte	SOLEIL	A3	a14
DUQUET	Fanny	KIT	A2	a15
FERNANDES CHAVES MACIEIRA	Gisele	DESY-XFEL	A2	a16
FIGURA-JAGODA	Aleksandra	KIT	A1	a17
FLORES GONZALES	Jamil Eduardo	DESY-XFEL	A3	a18
GILBERT	Hayley	ALBA	A3	a19
GRUENER LIMA	Mateus	ALBA	A3	a20
HENRICHSEN	Margrete Juel	DESY-XFEL	A2	a21
HERNANDEZ HERNANDEZ	Joana	DESY-XFEL	A3	a22
HOGENBIRK	Rijk	ALBA	A1	a23
JEGY	Jeenu	KIT	A2	a24
KAMBLE	Mayuri	SOLEIL	A3	a25
KÜBELBÄCK	Florian	SOLEIL	A2	a26
MAURYA	Vishal Kumar	DESY-XFEL	A3	a27
KUST	Ulrike	ALBA	A1	a28
LABH	Ankit	SOLEIL	A2	a29
LEE	Linruei	KIT	A2	a30
MARTÍNEZ HERNÁNDEZ	Harol David	DESY-XFEL	A3	a31
MAXIMOV	Leo	SOLEIL	A1	a32
NEUMANN	Laura	KIT	A2	a33
OLGO	Annabel	DESY-XFEL	A4	a34
ÖZTURK	Zeynep reyhan	DESY-XFEL	A4	a35
PÄTZOLD	Lara Christina	SOLEIL	A2	a36
RADETZKY	Karen	KIT	A1	a37
RAMIREZ CEREZO	Víctor	SOLEIL	A4	a38

FAMILY NAME	First name	Site	Group	#
REGAR	Urmila	SOLEIL	A4	a39
ROSA	Francesco	SOLEIL	A1	a40
ROSIER	Thibault	KIT	A1	a41
SILBERG	Rebecca	DESY-XFEL	A1	a42
SIMON	Felix	ALBA	A2	a43
ŞIT	Ferit	ALBA	A3	a44
SOLÉ CHAOS	Emma	ALBA	A3	a45
VITALE	Benedetta	SOLEIL	A4	a46
WAGNER	Helena martha	ALBA	A2	a47
WEINBERGER	Matthias	SOLEIL	A4	a48
WOLBER	Jonas Rudolf	SOLEIL	A3	a02
YANG	Yuan-Chi	DESY-XFEL	A4	a49
YUSUF	Yahaya Mohammad	DESY-XFEL	A1	a50
ZINOUEVA	Maryia	SOLEIL	A1	a51
ZUHAIR	Zifa	ALBA	A1	a52
ZWOLENIK	Aleksandra	DESY-XFEL	A4	a53

SESSION B

FAMILY NAME	First name	Site	Group	#
AHMADYARRAZLIGHI	Yashar	KIT	B	b01
ALBERINI	Valentina	KIT	B	b02
BAGHEL	Saahil	SOLEIL	B2	b03
BALZANO	Mariano	ALBA	B1	b04
BELOUSOV	Anatolii	SOLEIL	B1	b05
CAMPOS DOS REIS BRANCO	Madalena	ALBA	B1	b06
GHOSH	Aishee	SOLEIL	B2	b07
ISLA GANGOITI	Paula	SOLEIL	B2	b08
KEFS	Samy	ALBA	B1	b09
KRÜGER	Robin	ALBA	B1	b10
LEON-LUNA	Leticia	SOLEIL	B1	b11
MAGRI	Matteo	DESY-EuXFEL	B	b12
MALIZIA	Maria Sol	ALBA	B2	b13
MAYER	Bernadette	ALBA	B2	b14
MORGAN	Harry	DESY-EuXFEL	B	b15
PIETERSOONE	Emilie	KIT	B	b16
SABZIAN MOLAEI	Fatemeh	SOLEIL	B1	b17
SGARBIERO MONTANHA	Gabriel	SOLEIL	B2	b18
SINGH TEJASVI	Aastha	ALBA	B2	b19
STAMMER	Moritz	DESY-EuXFEL	B	b20
TIWARI	Anand Kumar	ALBA	B2	b21
YUVARAJ	Gayathri	SOLEIL	B1	b22

LIST OF PART-TIME PARTICIPANTS:

SESSION A

FAMILY NAME	First name
AYYAGARI	Aditya
CAMPO	Micaela
CORSI	Anna
DASH	Radhakanta
DESHMUKH	Prathamesh
GHOLAMPOUR AZHIR	Azam
KURAWLE	Nilofar
MANOUSOU	Dimitra
NGOUN	Saioul
PÉREZ JUNYENT	Clàudia
RAGHU	Athira
REHMAN	Fazal-Ur
ROBERTSON	Cerian
SILVA CONTRERAS	Ivonne Julieta
SINGH	Harpreet
SIWJI	Ali
SURESH KUMAR	Subhalakshmi
THEKKAN	Rinesh



PROGRAMME of GRENOBLE

SCHEDULE FOR SESSION A

at_ILL ILL4 building: Chadwick amphitheater (lectures, quizzes, ...), Hall (coffee breaks)
at_ILL(2) ILL4 building: Seminar room Isabelle Grillo, 1st floor (lectures and 1 quizz), Hall (coffee breaks)
at_CIBB CIBB building: Seminar room CIBB, 2nd floor (lectures, coffee breaks)
at_ESRF ESRF central building: Auditorium (lectures, quizzes, ...), Hall (coffee breaks, welcome cocktail, farewell party), Hall & Mezzanine (poster)
at_IBS IBS building: seminar room n°116B (lectures, quizzes, ...), Hall (coffee breaks)

Common lectures

Session A lectures

Other

► Week 1: 10th March – 14th March

	Monday 10	Tuesday 11	Wednesday 12	Thursday 13	Friday 14
8:40 – 9:25	8:40 – 10:30	at_ILL	at_ILL	at_ILL	at_ILL
10' break	ESRF / ILL badges distribution	Introduction to Synchrotron Radiation, coherence, and the evolution to Free Electron Lasing David ATTWOOD	X-ray optics and applications David ATTWOOD	Introduction to X- ray Spectroscopies (XAS, XES, RXES) Sakura PASCARELLI	Neutrons: scattering and instrumentation (1/2) Andrew WILDES
9:35 – 10:20	COFFEE BREAK 9:30-11:45				
	at_ILL 10:30 – 11:00 Welcome				
10:20-10:50		COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
10:50 – 11:35	at_ILL 11:00 – 12:40 Introduction to the science at large scale facilities: neutron, synchrotron and XFEL sources Marc DE BOISSIEU	at_ILL Introduction to interactions of X-rays and neutrons with matter (1/2) Andrew HARRISON	at_ILL 10:50 – 11:05 UGA commitments to equality and inclusion Marine DELMOTTE	at_ILL Fundamentals of X-ray Absorption Fine Structure Spectroscopy Sakura PASCARELLI	at_ILL Refresher lecture on crystallography. Reciprocal space (2/2) Claire COLIN
11:45 – 12:30			at_ILL 11:10 – 12:30 Quizz on Crystallography Claire COLIN		
12:30 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 – 14:45	at_ESRF Refresher lecture on crystallography. Real space (1/2) Claire COLIN	at_ILL Introduction to interactions of X-rays and neutrons with matter (2/2) Andrew HARRISON	ILL / ESRF visit	ILL / ESRF visit	at_ESRF Neutrons: scattering and instrumentation (2/2) Andrew WILDES
14:55 – 15:40					
15:40-16:05	COFFEE BREAK	COFFEE BREAK	BREAK	BREAK	COFFEE BREAK
16:05 – 18:15	at_ESRF 16:05- 16 :50 ILL presentation ANDERSEN Ken 17:05-17:50 ESRF presentation DAILLANT Jean 18 :00-18 :15 UGA presentation ROUX Philippe	at_ILL Basics of X-ray detectors; How do they work and how are they characterised? Heinz GRAAFSMA	at_ILL XFELs and ultrafast applications Sakura PASCARELLI	at_ILL 16:10 – 16 :40 DECTRIS presentation Sofia TRAMPARI at_ILL 16:45 – 18:15 Quizz on Basics of neutron and X-ray radiations Organisers	at_ESRF 16:00 – 18:00 Poster session First Day
	at_ESRF 18:15 Welcome cocktail				Restaurant 19:30 Ice breaking party

SCHEDULE FOR SESSION A

► Week 2: 17th – 21th March 2025

	Monday 17	Tuesday 18	Wednesday 19	Thursday 20	Friday 21
8:40 – 9:25 10' break 9:35 – 10:20	at ILL Introduction on Neutron and X-ray imaging Alessandro TENGATTINI	at ILL Theoretical basis for the calculation of x- ray absorption spectroscopy Amélie JUHIN	at ILL Neutron time of flight spectroscopy Toby PERRING	at ILL Hard X-ray optics for SR beamlines Ray BARRETT	at ILL Introduction to neutron and X-ray inelastic scattering Victor BALÉDENT
10:20-10:50	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
10:50 – 11:35 10' break 11:45 – 12:30	at ILL Small angle scattering Martin MÜLLER	at ILL Advanced X-ray absorption spectroscopies to study magnetism and chirality Andrei ROGALEV	at ILL X-ray Photon Correlation Spectroscopy Gerhard GRÜBEL	at ILL From a diffraction experiment to the crystal structure Sébastien PILLET	at ILL Introduction to Soft Condensed Matter Adrian RENNIE
12:30 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 – 14:45 10' break 14:55 – 15:40	at ILL X-ray and Neutron Reflectometry Frank SCHREIBER	at ILL High resolution inelastic X-ray scattering Matthieu LE TACON	at ESRF Resonant diffraction Vincent FAVRE-NICOLIN	at ILL X-ray photoemission electron microscopy Claus SCHNEIDER	14:00 – 17:30 TUTORIALS / LABS <i>(in small groups)</i>
15:40-16:10	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	
16:10 – 16:55 10' break 17:05 – 17:50	at ILL Polarized X-rays Urs STAUB	at ILL Magnetic neutron diffraction Navid QURESHI	at ESRF 16:00 – 18:00 Poster Session Second Day 18:15 – 18:30 Poster awards Auditorium ESRF	at ILL Powder diffraction Radovan CERNY	

SCHEDULE FOR SESSION A

► Week 3: 24th – 28th March 2025

	Monday 24	Tuesday 25	Wednesday 26	Thursday 27	Friday 28
8:40 – 9:25 10' break 9:35 – 10:20	at ILL Introduction to magnetism Luigi PAOLASINI			at ILL Coherent diffractive imaging and ptychography Manuel GUIZAR-SICAIROS	at ILL Full-field Coherent Imaging Peter CLOETENS
10:20-10:50	COFFEE BREAK	9:00 – 12:30	9:00 – 12:30	COFFEE BREAK	COFFEE BREAK
10:50 – 11:35 10' break 11:45 – 12:30	at ILL Polarized neutrons: theoretical and experimental techniques for the study of atomic, molecular and nanoscale systems Sean LANGRIDGE	ESRF PRACTICALS (in small groups)	ESRF PRACTICALS (in small groups)	at ILL 10:50 – 11:35 Insight into biomineralization with x-ray Bragg ptychography microscopy Virginie CHAMARD 11:45 – 12:30 Bragg coherent diffraction imaging and its application Marie-Ingrid RICHARD	at ILL 10:50 – 11:35 Neutron spin-echo Orsolya CZAKKEL 11:45 – 12:30 Neutron backscattering Markus APPEL
12:30 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 – 14:45 10' break 14:55 – 15:40	at ILL Serial (femtosecond) crystallography Thomas BARENDs	14:00 – 17:30	14:00 – 17:30	14:00 – 17:30	14:00 – 17:30
15:40-16:10	COFFEE BREAK	ESRF PRACTICALS (in small groups)	ESRF PRACTICALS (in small groups)	TUTORIALS / LABS (in small groups)	TUTORIALS / LABS (in small groups)
16:10 – 16:55 10' break 17:05 – 17:50	at ILL Science at neutron spallation sources: exploiting accelerator based facilities Sean LANGRIDGE				

SCHEDULE FOR SESSION A

► Week 5: 7th – 11th April 2025

	Monday 7	Tuesday 8	Wednesday 9	Thursday 10	Friday 11
8:40 – 9:25 10' break 9:35 – 10:20	at ILL Magnetic X-ray and neutron reflectivity <i>Björgvin HJÖRVARSSON</i>	at ESRF Pair Distribution Function-Basics and analysis of disordered materials <i>Adrian BARNES</i>	at ESRF Machine and deep learning to data analysis <i>Linus PITHAN</i>	9:00 – 12:30 <i>ILL PRACTICALS</i>	at IBS Solving surface problems using SR techniques <i>Alessandro COATI</i>
10:20-10:50	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK		COFFEE BREAK
10:50 – 11:35 10' break 11:45 – 12:30	at ILL Disorder and its effects on neutron and X-ray diffraction <i>Ella Mara SCHMIDT</i>	at ESRF Pair Distribution Function-analysis <i>Maria DIAZ-LOPEZ</i>	at ESRF Data science: from big & open data to cloud computing <i>Vincent FAVRE-NICOLIN</i>	(in small groups)	at IBS Neutron triple axis spectroscopy <i>Andrea PIOVANO</i>
12:30 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 – 14:45 10' break 14:55 – 15:40	at ILL Photoelectron spectroscopy from UV to soft X-rays <i>Hugo DIL</i>	at ESRF 14:00 – 15:00 How to write a good proposal <i>Organisers</i>	14:00 – 17:30 <i>TUTORIALS / LABS</i> (in small groups)	14:00 – 17:30 <i>ILL PRACTICALS</i> (in small groups)	at ESRF 14:00 – 14:45 The role of the scientist in making data FAIR for reproducible science. <i>Andy GÖTZ</i> 14:55 – 15:40 Human Organ Atlas project. <i>Paul TAFFOREAU</i>
15:40-16:10	COFFEE BREAK	COFFEE BREAK			COFFEE BREAK
16:10 – 16:55 10' break 17:05 – 17:50	at ILL Materials for energy <i>Sandrine LYONNARD</i>	at ESRF 15:30 – 17:30 Quizz (check what you have learned, session A) <i>Organisers</i>			15:50 – 16:35 Industrial R&D at large scale facilities <i>Richard DAVIES</i> 16:45 – 17:30 HERCULES mythology. <i>Chris BUCKLEY</i>
					at ESRF 18:00 – 20:30 ►► Concluding remarks ►► Farewell party

PRACTICALS / LABS / TUTORIALS FOR SESSION A

Full-time participants only

Coordinators: Elsa LHOTEL, Alejandro FERNANDEZ-MARTINEZ

Part-time participants will not participate at all in week 4 and in practicals / labs / tutorials organised by Grenoble. This section concerns only the **full-time participants**.

During **weeks 2, 3, and 5**, organised by **Grenoble**, all full-time participants will carry out **practicals**¹ at Institut Laue Langevin (ILL) and European Synchrotron Radiation Facility (ESRF). In addition, they will participate in **tutorials**² and, for some of the participants, in **labs**³, at ESRF, ILL and Centre National de la Recherche Scientifique (CNRS).

All full-time participants will follow additional practicals / tutorials during **week 4**, spent at one of the following partner facilities: **ALBA, DESY-XFEL, KIT, SOLEIL**. For each of these four destinations, the participants have been distributed in groups of 3 or 4 (groups A1, A2, ... at each site). See the '**PROGRAMME OF PARTNER**' section for the detailed programme there.

As concerns practicals / labs / tutorials in the programme of Grenoble, no fixed groups were made, but rather an individual and personalised schedule. Therefore, we assigned a number to each participant (a01 to a53), for a better readability in the tables that will follow. All the information regarding **groups A1, A2, ...** and the **numbering a01, a02, ...** can be found in the '**PRACTICAL INFORMATION**' section of this booklet (p21 > p23).

The complete individual schedule can also be found on a separate PDF document and in **MY SCHEDULE** on the Hercules website: <https://hercules-school.eu/my-dashboard> (once connected). The summaries of the various practicals / labs / tutorials are also available there.

The complete practicals / labs / tutorials schedule was done in the best possible way (regarding the many constraints) with respect to the main research interests and wishes expressed. Some hands-on training on completely different techniques and/or subjects were also assigned, in order to expand your skills. Each full-time participant will perform selected practicals, labs, and/or tutorials, as indicated in the following.

All full-time participants are required to attend the entire practical / lab / tutorial programme assigned to them

¹ **Practical:** hands-on training on large scale facility instruments;

² **Tutorial:** data treatment (on synchrotron or neutron data recorded beforehand) or, for a few of them, simulations.

³ **Lab:** hands-on training on laboratory experiments;

► Practicals at ESRF

Meeting point on the mezzanine of
ESRF central building 15 min. earlier25th and 26th MARCH, 9:00 – 12:30 and 14:00 – 17:30

BEAMLINE	INSTRUCTOR(S)	TITLE	25 th March		26 th March	
			9:00	14:00	9:00	14:00
BM02-D2AM	BEUTIER Guillaume	Forbidden reflections in a Germanium single crystal	a03 a11 a36 a50	a05 a23 a39 a32	a26 a28 a31 a35	a27 a30 a46 a51 a53
BM05	DOLLMAN Kathleen	Synchrotron-based microtomography			a30 a34 a38 a41 a48	
BM08-LISA	DACAPITO Francesco	Practical introduction to the EXAFS technique			a02 a12 a13 a16	a01 a04 a05 a29
BM16	PROUX Olivier	X-ray absorption spectroscopy			a24 a25 a36 a37 a44	a07 a11 a18 a42 a50
BM20	KVASHNINA Kristina	X-ray absorption spectroscopy	a21 a41 a49 a51	a28 a33 a35 a48		
BM23	LOMACHENKO Kirill	X-ray absorption spectroscopy	a08 a19 a20 a43	a06 a17 a46 a53	a03 a10 a15 a22 a40	a26 a31 a45 a47
BM32	Samuel TARDIF	X-ray reflectivity	a04 a27 a34 a44	a01 a11 a30 a50		
ID01 (1)	CORLEY-WICIAK Cedric	Scanning X-ray Diffraction Microscopy	a01 a10 a16 a37			a08 a13 a23 a28 a35
ID01 (2)	LEAKE Steven	Wavefront reconstruction and Bragg coherent diffraction imaging		a03 a19 a20 a34 a45	a04 a33 a46 a50 a51	
ID03	SARKIS Marylin	Examination of dislocations in the deformed sample by Dark-Field X-ray Microscopy			a07 a11 a20 a21 a52	a03 a16 a17 a37 a39
ID11	FANG Haixing	Scanning X-ray Diffraction Microscopy			a18 a42 a43 a45 a47	a21 a25 a32 a34 a38
ID12	WILHELM Fabrice	Hard X-ray XMCD	a17 a25 a26 a35 a40 a42	a10 a13 a21 a47	a01 a14 a27 a29 a32	a02 a09 a12 a33 a36
ID13	BURGHAMMER Manfred	Scanning X-ray Diffraction Microscopy	a02 a07 a15 a30		a05 a17 a19 a49 a53	a06 a20 a40 a41 a44
ID15B	GARBARINO Gaston	Crystallography in a diamond anvil cell	a09 a12 a29 a47 a53	a14 a37 a40 a44		
ID21	COTTE Marine	Micro-XRF and Micro-XANES at ID21			a06 a08 a09 a23 a39	a10 a19 a24 a48 a49
ID22	FITCH Andy	High resolution powder diffraction	a24 a31 a39 a45	a12 a15 a25 a41 a52		
ID26	GLATZEL Peter	Aligning an X-ray emission spectrometer	a14 a33 a48 a52	a02 a08 a43 a51		
ID27	MEZOUAR Mohamed	Crystallography in a diamond anvil cell	a06 a13 a28 a32 a38	a22 a26 a27 a31 a36		
ID28	BOSSAK Alexei	Diffuse scattering in minerals		a04 a09 a16 a18 a38		a14 a15 a22 a43 a52
ID31	MIROLO Marta	High energy X-ray diffraction - PDF	a05 a18 a22 a23 a46	a07 a24 a29 a42 a49		

► Practicals at ILL

Meeting point in the hall of ILL4
building 10 min. earlier10th APRIL, 9:00 – 12:30 and 14:00 – 17:30

INSTRUMENT	INSTRUCTOR(S)	TITLE	10 th April	
			9:00	14:00
D9	FABELO Oscar	Single crystal diffraction	a06 a19 a52 a53	
D10	KIBALIN Iurii	Single crystal nuclear and magnetic diffraction		a08 a22 a36 a37
D17	SAERBECK Thomas	Reflectometry on magnetic thin films	a05 a17 a37 a42	a06 a19 a30 a35
D20	HANSEN Thomas	Powder diffraction	a23 a39 a46 a50	a03 a11 a24 a38
D33	CUBITT Bob	Neutron scattering and vortex matter in superconductors	a01 a11 a44 a48	a39 a42 a43 a45 a47
IN1-LAGRANGE	JIMENEZ Monica	Neutron Vibrational Spectroscopy	a07 a36 a38 a43 a47	
IN5	OLIVIER Jacques	Magnetic scattering on cold neutrons time-of-flight	a02 a03 a08 a14	a21 a25 a26 a49
IN8	PIOVANO Andrea	Single crystal neutron spectroscopy		a10 a31 a32 a44
IN16	APPEL Markus	High resolution spectroscopy on cold neutron backscattering spectrometers	a15 a21 a31 a49	a04 a05 a09 a34
NEXT	TENGATTINI Alessandro	Neutron and X-ray Tomography and Image processing	a13 a24 a30 a45	a33 a46 a48 a50
Panther	Marek KOZA	Magnetic and nuclear excitations on a thermal Time of flight neutron spectrometer	a28 a29 a32 a40	a13 a17 a23 a51
SALSA	CABEZA Sandra, PIRLING Thilo	Neutron Strain Scanning for Engineering Applications	a04 a16 a33 a41	a15 a20 a28 a52
SAM	MARTIN Nicolas	Small angle neutron scattering	a09 a20 a34 a35	
Thales	STEFFENS Paul, HIES Arno	Single crystal spectroscopy	a18 a25 a26 a51	a01 a07 a29 a40
XtremeD	SAVVIN Stanislav	Magnetic powder neutron diffraction	a10 a12 a22 a27	a02 a16 a41 a53
WASP	FOUQUET Peter	Neutron Spin-Echo Spectroscopy		a12 a14 a18 a27

Additional information about the ESRF and ILL practicals:

You will be contacted by your instructor in case you should bring your laptop and install some particular software beforehand. Also check this information in MY SCHEDULE on the Hercules website.

You can find information on the various **ESRF beamlines** and **ILL instruments** at the following URLs:

<https://www.esrf.fr/home/UsersAndScience/find-a-beamline.html>

<https://www.ill.eu/users/instruments/instruments-list>

► Tutorials and Labs

Meeting points: see page 34*

21st, 27th, 28th March and 9th April, 14:00 – 17:30

TUTORIAL/LAB	INSTRUCTOR(S)	TITLE	LOCATION	21 March	27 March	28 March	9 April
Bilbao THz	DE BRION Sophie	Introduction to symetries using Bilbao Crystallographic server. Applications in the THz domain.	ILL50 - 101 (28 March) IBS - 371 (9 April)			a02 a12 a14 a22 a32 a40	a11 a27 a36 a51
CDI ptycho	FAVRE-NICOLIN Vincent	Coherent imaging data analysis (CDI, Ptychography, holo-tomography) using PyNX --> SI PAS FOX	IBS - 475 (3rd floor)				a03 a04 a20 a33
GSAS	TOBY Brian	Intro to GSAS-II	ILL4 - 158 (27 March) ILL4 - 158 (28 March) SB: Room 30 (9 April) <i>Online tutorial</i>		a03 a10 a11 a52	a06 a16 a23 a24 a43	a15 a35 a39 a42 a45
JANA	HENRIQUES Margarida, PETRICEK Vaclav, POUPON Morgane	Refinement of crystal and magnetic structures in Jana2020	ILL4 – 264 / <i>Online tutorial</i>		a02 a13 a36 a40	a01 a05 a07 a29 a51	
MAG DIF	PADDISON Joseph	Magnetic diffuse scattering	ILL4 – 226 / <i>Online tutorial</i>		a14 a22 a26 a51		
McStas	WEBER Tobias	Simulating neutron scattering using McStas	ILL4 – 121	a04 a11 a15 a19 a39 a52			
OASYS	SANCHEZ DEL RIO Manuel, REYES-HERRERA Juan	Modelling synchrotron radiation beamlines with Oasys	ILL50 – 101/102	a05 a06 a10 a23 a24 a35 a44 a48			
PDF ID31 Data	MIROLO Marta	Analysis of scattering data collected during the training at ID31	ESRF: LOB-1-45		a05 a07 a18 a23 a24 a29 a42 a46 a49		
pyFAI	KIEFFER Jerome	Scattering data: calibration and reduction with pyFAI (covers SAS, powder diffraction and PDF)	Central Building ESRF: CB 126 & CB 248a (28 March) CB 126 (9 April)			a20 a28 a46 a47	a09 a18 a34 a43 a49

TUTORIAL/LAB	INSTRUCTOR(S)	TITLE	LOCATION	21 March	27 March	28 March	9 April
QENS	BERROD Quentin	QENS applied to materials for energy (matière molle)	SB Room 213	a08 a21 a26 a28 a31 a38 a40			
RIXS	POREE Victor	Resonant inelastic X-ray scattering in the soft X-ray regime for quantum materials	ILL50 – 101/102 (27 March) Central Building ESRF: Room CB126 (28 March)		a01 a12 a19 a38 a41 a44	a13 a17 a25 a35 a45 a52	
DIF TOMO	FANG Haixing	Grain and strain mapping using ImageD11 for s3DXRD data	Science Building Room 401 (27 March) Room 125 (28 March)		a25 a32 a43 a45 a47	a18 a42 a21 a34 a38	
TAS	BOUNOUA Dalila	Phonon dispersion in CaF ₂	Science Building Room 30 (27 March) Room 28 (28 March) <i>Online tutorial</i>		a06 a21 a31 a37	a30 a41 a44 a50	
XAS 1	JOLY Yves	X-ray absorption simulations	SB Room 35				a01 a07 a08 a13 a14 a17 a46
XAS 2	RETEGAN Marius	X-ray spectroscopy calculations using multiplet approaches	SB Room 401 (21 & 28 March)	a36 a37 a41 a47 a49 a50		a10 a19 a27 a33 a53	
XPD or XSCD	LEYNAUD OLIVIER	2 possibilities (and/or): - X-Ray Powder Diffraction - 4-circles Single Crystal Diffraction	Inst. Neel - CNRS Room F217, Building F, 1 st floor	a03 a16 a17 a20 a22 a30 a53	a09 a27 a28 a34 a48 a50		
Mag2Pol	QURESHI Navid	Neutron and x-ray diffraction data analysis using Mag2Pol	ILL4 – 226				a02 a12 a25 a26 a29 a32
VLab	BRESSLER Christian	Virtual Femtosecond X-Ray Experiments (XES, XRD)	SB Room 213		a04 a15 a16 a30 a33 a53	a08 a09 a31 a37 a39 a48	

TUTORIALS:

For some tutorials, you will need to **install specific software beforehand**, to be able to do the data treatment. In that case, your instructor will send you an email before the tutorial and/or will give this information in the summary of the tutorial on the Hercules website. **If you have no computer or do not have the required OS system** for a particular tutorial, you may either share a laptop with another participant or borrow a PC Windows laptop.

NB: a few tutorials will be online and take place on **Zoom**, in a room equipped with videoconferencing system. **Your presence on site is mandatory!**

***Meeting points, at 13:50, for the tutorials and labs:**

Location 'ILL': Hall of ILL4 building

Location 'ESRF': Hall of ESRF central building

Location 'SB': Entrance hall of the Science Building (SB)

Location 'CNRS': Go directly to room F217

→ see map on page 35; sign posting from the ground floor of F building).

An entrance to the CNRS site will be authorized to the participants to the XRD lab. You will receive an email soon

Careful: all together, it should take at least 15 minutes to get there from the EPN campus

**Clearance + passport or ID
needed at the CNRS site entrance**

Practical on Institut Néel-CNRS site.



Map of the CNRS site (for XPD lab)

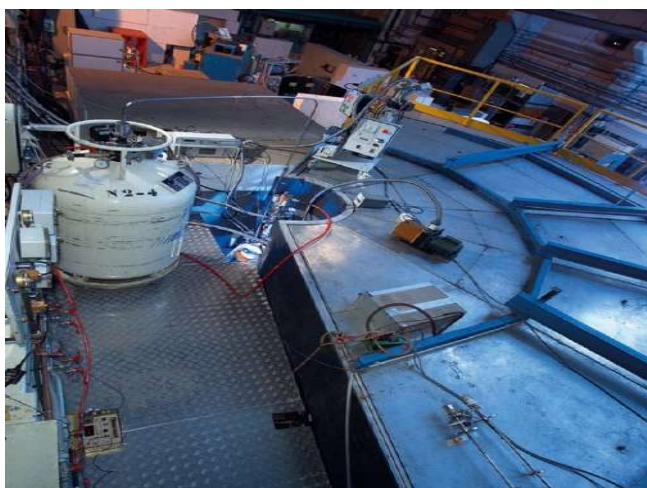
To reach the hall of the F building, enter in the A building, take the stairs on the left of the welcome desk, then walk through the long corridor to the left direction, until you reach the F building. You will see a sign posting from there to the F217 room.



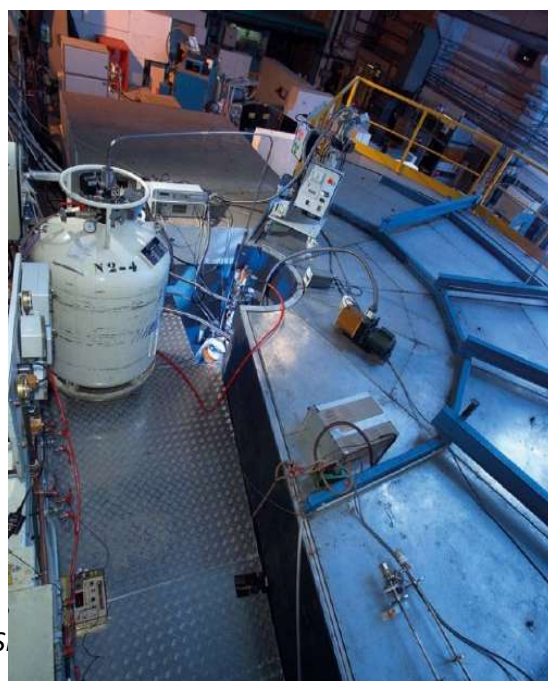
Small Angle Neutron Scattering, D11_at_ ILL



Small angle X-ray scattering, BM29_at_ ESRF



Extended X-ray Absorption Fine Structure, BM08_at_ ESRF



Time Of Flight neutron spectrometry, IN5_at_ ILL



EBS storage ring _at_ ESRF

Powder Neutron Diffraction, D1B _at_ ILL

PROGRAMME of GRENOBLE

SCHEDULE FOR SESSION B

at_ILL ILL4 building: Chadwick amphitheater (lectures, quizzes, ...), Hall (coffee breaks)
at_ILL(2) ILL4 building: Seminar room Isabelle Grillo, 1st floor (lectures and 1 quizz), Hall (coffee breaks)
at_CIBB CIBB building: Seminar room CIBB, 2nd floor (lectures, coffee breaks)
at_ESRF ESRF central building: Auditorium (lectures, quizzes, ...), Hall (coffee breaks, welcome cocktail, farewell party), Hall & Mezzanine (poster)
at_IBS IBS building: seminar room n°116B (lectures, quizzes, ...), Hall (coffee breaks)

Common lectures Session A lectures Other

► Week 1: 10th March – 14th March

	Monday 10	Tuesday 11	Wednesday 12	Thursday 13	Friday 14
8:40 – 9:25	8:40 – 10:30	at_ILL	at_ILL	at_ILL	at_ILL
10' break	ESRF / ILL badges distribution	Introduction to Synchrotron	X-ray optics and applications	Introduction to X-ray	Neutrons: scattering and instrumentation (1/2)
9:35 – 10:20	COFFEE BREAK 9:30-11:45	Radiation, coherence, and the evolution to Free Electron Lasing	David ATTWOOD	Spectroscopies (XAS, XES, RXES)	Andrew WILDES
	at_ILL	David ATTWOOD		Sakura PASCARELLI	
	10:30 – 11:00 Welcome				
10:20-10:50	at_ILL	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
10:50 – 11:35	11:00 – 12:40	at_ILL	at_ILL 10:45 – 11:00	at_ILL	at_ILL
10' break	Introduction to the science at large scale facilities: neutron, synchrotron and XFEL sources	Introduction to interactions of X-rays and neutrons with matter (1/2)	UGA commitments to equality and inclusion	Fundamentals of X-ray Absorption	Refresher lecture on crystallography.
11:45 – 12:30	Marc DE BOISSIEU	Andrew HARRISON	Marine DELMOTTE	Fine Structure Spectroscopy	Reciprocal space (2/2)
			at_ILL 11:10 – 12:30	Sakura PASCARELLI	Claire COLIN
			Quizz on Crystallography Claire COLIN		
12:30 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 – 14:45	at_ESRF	at_ILL			at_ESRF
10' break	Refresher lecture on crystallography.	Introduction to interactions of X-rays and neutrons with matter (2/2)	ILL / ESRF visit	ILL / ESRF visit	Neutrons: scattering and instrumentation (2/2)
14:55 – 15:40	Real space (1/2) Claire COLIN	Andrew HARRISON			Andrew WILDES
15:40-16:05	COFFEE BREAK	COFFEE BREAK	BREAK	BREAK	COFFEE BREAK
16:05 – 18:15	at_ESRF	at_ILL	at_ILL	at_ILL 16:10 – 16:40 DECTRIS presentation	at_ESRF
	16:05 – 16:50 ILL presentation ANDERSEN Ken	Basics of X-ray detectors; How do they work and how are they characterised?	XFELs and ultrafast applications	Sofia TRAMPARI	
	17:05 – 17:50 ESRF presentation DAILLANT Jean	Heinz GRAAFSMA	Sakura PASCARELLI	at_ILL 16:45 – 18:15	16:00 – 18:00 Poster session First Day
	18:00-18:15 UGA presentation ROUX Philippe			Quizz on Basics of neutron and X-ray radiations	
				Organisers	

	at ESRF - 18:15 Welcome cocktail				Restaurant - 19:30 Ice breaking party
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SCHEDULE FOR SESSION B

► Week 2: 17th March – 21st March

	Monday 17	Tuesday 18	Wednesday 19	Thursday 20	Friday 21
8:40 – 9:25 10' break 9:35 – 10:20	at ILL Introduction on Neutron and X-ray imaging Alessandro TENGATTINI	at ILL(2) Crystallization of biological macromolecules Monika SPANO	at ILL(2) Structural dynamics by time resolved X-ray solution scattering Giorgio SCHIRÒ	at ILL Hard X-ray optics for SR beamlines Ray BARRETT	at ILL Introduction to neutron and X-ray inelastic scattering Victor BALÉDENT
10:20-10:50	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
10:50 – 11:35 10' break 11:45 – 12:30	at ILL Small angle scattering Martin MÜLLER	at ILL(2) X-ray and neutron reflectometry in biophysics Yuri GERELLI	at ILL(2) X-ray spectroscopy Serena DE BEER	at ILL From a diffraction experiment to the crystal structure Sébastien PILLET	at ILL Introduction to Soft Condensed Matter Adrian RENNIE
12:30 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 – 14:45 10' break 14:55 – 15:40	at ILL(2) Neutron Spectroscopy as a Tool to Understand Dynamics in Soft Matter Victoria GARCIA SAKAI	at ILL(2) Electron microscopy for structural biology Allison BALLANDRAS-COLAS	at CIBB Biological small angle neutron scattering Frank GABEL	at ILL(2) Solution X-ray Scattering Véronique BRECHOT	14:00 – 17:30 TUTORIALS / LABS (in small groups)
15:40-16:10	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	
16:10 – 16:55 10' break 17:05 – 17:50	at ILL(2) Protein crystallography Elke DE ZITTER	at ILL(2) GISAXS/ GISANS for polymers and soft matter Peter MÜLLER-BUSCHBAUM (remote for 2025)	at ESRF 16:00 – 18:00 Poster Session Second Day 18:15 – 18:30 Poster awards Auditorium ESRF	at ILL(2) Neutron and X-ray diffraction on membranes Fabrizia FOGLIA	

SCHEDULE FOR SESSION B

► Week 3: 24th – 28th March 2025

	Monday 24	Tuesday 25	Wednesday 26	Thursday 27	Friday 28
8:40 – 9:25 10' break 9:35 – 10:20	at ILL(2) Coherent X-rays for colloidal matter Anders MADSEN	9:00 – 12:30 ESRF PRACTICALS (in small groups)	9:00 – 12:30 ESRF PRACTICALS (in small groups)	at ILL(2) Neutron macromolecular crystallography Matthew BLAKELEY	at ILL Full-field Coherent Imaging Peter CLOETENS
10:20-10:50	COFFEE BREAK			COFFEE BREAK	COFFEE BREAK
10:50 – 11:35 10' break 11:45 – 12:30	at ILL(2) Seminars (to be confirmed)			at ILL(2) Introduction to current trends and challenges of molecular and structural biology Claude SAUTER	at ILL 10:50 – 11:35 Neutron spin-echo Orsolya CZAKKEL 11:45 – 12:30 Neutron backscattering Markus APPEL
12:30 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 – 14:45 10' break 14:55 – 15:40	at ILL Serial (femtosecond) crystallography Thomas BARENDS	14:00 – 17:30 ESRF PRACTICALS (in small groups)	14:00 – 17:30 ESRF PRACTICALS (in small groups)	14:00 – 17:30 TUTORIALS / LABS (in small groups)	14:00 – 17:30 TUTORIALS / LABS (in small groups)
15:40-16:10	COFFEE BREAK				
16:10 – 16:55 10' break 17:05 – 17:50	at ILL Science at neutron spallation sources: exploiting accelerator based facilities Sean LANGRIDGE				

SCHEDULE FOR SESSION B

► Week 5: 7th – 11th April

	Monday 7	Tuesday 8	Wednesday 9	Thursday 10	Friday 11
8:40 – 9:25 10' break 9:35 – 10:20	9:00 – 12:30 ILL PRACTICALS <i>(in small groups)</i>	at CIBB Nuclear Magnetic Resonance Martin BLACKLEDGE	at ESRF Machine and deep learning to data analysis Linus PITHAN	at ILL(2) Radiation damage in protein crystallography Martin WEIK	at ILL(2) 9:20 Biomolecular deuteration for neutron scattering Martine MOULIN
10:20-10:50		COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
10:50 – 11:35 10' break 11:45 – 12:30		at CIBB Protein Dynamics by Neutron Scattering and Dynamics of Macromolecules Giuseppe ZACCAI	at ESRF Data science: from big & open data to cloud computing Vincent FAVRE-NICOLIN	at ILL(2) Biomedical imaging with Synchrotron Radiation Giuliana TROMBA	at ILL(2) Deuteration for soft matter and chemistry Jürgen ALLGAIER
12:30 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 – 14:45 10' break 14:55 – 15:40	14:00 – 17:30 ILL PRACTICALS <i>(in small groups)</i>	at ESRF 14:00 – 15:00 How to write a good proposal Organisers	at CIBB Coherent diffraction imaging and ptychography for soft condensed matter and biology Chris JACOBSEN	14:00 – 17:30 TUTORIALS / LABS <i>(in small groups)</i>	at ESRF 14:00 – 14:45 The role of the scientist in making data FAIR for reproducible science. Andy GÖTZ 14:55 – 15:40 Human Organ Atlas project Paul TAFFOREAU
15:40-16:10		COFFEE BREAK	COFFEE BREAK		COFFEE BREAK
16:10 – 16:55 10' break 17:05 – 17:50		at CIBB 15:30 – 17:30 Quizz (check what you have learned, session B) Organisers	at CIBB Super-resolution microscopy: a revolution in biological imaging Dominique BOURGEOIS		15:50 – 16:35 Industrial R&D at large scale facilities Richard DAVIES 16:45-17:30 HERCULES mythology Chris BUCKLEY
					at ESRF 18:00 – 20:30 ► Concluding remarks ► Farewell party

PRACTICALS / LABS / TUTORIALS FOR **SESSION B***Full-time participants only*

Coordinators: Allison BALLANDRAS-COLAS, Petra PERNOT,
Sylvain PREVOST, Giorgio SCHIRÒ

Part-time participants will not participate at all in week 4 and in practicals / labs / tutorials organised by Grenoble. This section concerns only the **full-time participants**.

During **weeks 2, 3, and 5**, organised by **Grenoble**, all full-time participants will carry out **practicals**¹ at Institut Laue Langevin (ILL) and European Synchrotron Radiation Facility (ESRF). In addition, they will participate in **tutorials**² and in **labs**³ at ESRF, ILL and Institut de Biologie Structurale (IBS).

All full-time participants will follow additional practicals / tutorials during **week 3**, spent at one of the following partner facilities: **ALBA, DESY-XFEL, KIT, SOLEIL**. For each of these four destinations, the participants have been distributed in groups of 3 or 4 (groups B1, B2, or B, at each site). See the '**PROGRAMME OF PARTNER**' section for the detailed programme there.

As concerns practicals / labs / tutorials in the programme of Grenoble, no fixed groups were made, but rather an individual and personalised schedule. Therefore, we assigned a number to each participant (b01 to b22), for a better readability in the tables that will follow. All the information regarding **groups B1, B2, B** and the **numbering b01, b02, ...** can be found in the '**PRACTICAL INFORMATION**' section of this booklet (p21 > p23).

The complete individual schedule can also be found on a separate PDF document and in **MY SCHEDULE** on the Hercules website: <https://hercules-school.eu/my-dashboard> (once connected). The summaries of the various practicals / labs / tutorials are also available there.

The complete practicals / labs / tutorials schedule was done in the best possible way (regarding the many constraints) with respect to the main research interests and wishes expressed. Some hands-on training on completely different techniques and/or subjects were also assigned, in order to expand your skills. Each full-time participant will perform selected practicals, labs, and/or tutorials, as indicated in the following.

All full-time participants are required to attend the entire practical / lab / tutorial programme assigned to them

¹ **Practical:** hands-on training on large scale facility instruments;

² **Tutorial:** data treatment (on synchrotron or neutron data recorded beforehand) or, for a few of them, simulations.

³ **Lab:** hands-on training on laboratory experiments;

► Practicals at ESRF

Meeting point on the mezzanine of
ESRF central building 15 min. earlier



25th and 26th MARCH, 9:00 – 12:30 and 14:00 – 17:30

PRACTICAL	INSTRUCTORS	TITLE	25 th March		26 th March	
			09:00	14:00	09:00	14:00
BM05	DOLLMAN Kathleen	Synchrotron-based microtomography				b02 b06 b09 b11 b16
BM07	ENGILBERGE Sylvain	MX data collection in the AlphaFold age	b01 b04 b11 b14 b17	b06 b08 b12 b13 b19 b22		
ID09	LEVANTINO Matteo	Time-resolved X-ray scattering			b03 b10 b14 b15 b16 b17 b20	b07 b12 b13 b18 b19 b21
BM29	TULLY Mark	Macromolecule Small Angle Scattering with X-rays (BioSAXS)	b12 b13 b15 b16		b01 b04 b05 b07 b08 b09 b18 b19 b21	b03 b10 b14 b20 b22
CM02	JUYOUX Pauline	Sample preparation and data collection for high resolution cryo electron microscopy			b02 b06 b11 b12 b13 b22	b01 b04 b05 b08 b15 b17
BM16	PROUX Olivier	X-ray absorption spectroscopy	b07 b08 b18 b19 b20 b21 b22	b01 b02 b03 b05 b09 b10 b14 b17		
ID21	COTTE Marine	Micro-XRF and Micro-XANES at ID21	b02 b03 b05 b06 b09 b10	b07 b11 b15 b16 b18 b20 b21 b04		

► **Practicals at ILL**

Meeting point in the hall of ILL4
building 10 min. earlier



7th April, 9:00 – 12:30 and 14:00 – 17:30

PRACTICAL	INSTRUCTOR	TITLE	7 th April	
			09:00	14:00
D16	CRISTIGLIO Viviana	Small and wide angle high resolution neutron diffraction of biological and molecular solutions.	b02 b03 b16 b17	b13 b20 b22 b09
D22	VAGIAS Apostolos	Small angle neutron scattering: acquisition, reduction and analysis for self-assemblies and biomacromolecules	b07 b09 b11 b12	b04 b16 b17 b19
FIGARO	GUTFREUND Philipp	Neutron reflectometry for thin film investigations	b01 b14 b20	b02 b07 b08
IN15	HOFFMANN Ingo	Basics of Neutron Spin Echo (NSE)	b10 b18 b19 b21	b03 b05 b06 b01
IN16B	PETERS Judith	Molecular dynamics probed by neutron spectroscopy	b06 b08 b13 b15	b14 b18 b21
LADI-DALI	GAJDOS Lukas	Neutron macromolecular crystallography	b05 b22 b04	b10 b11 b12 b15

Additional information about the ESRF and ILL practicals/labs:

You will be contacted by your instructor in case you should bring your laptop and install some particular software beforehand. Also check this information in MY SCHEDULE on the Hercules website.

You can find information on the various **ESRF beamlines** and **ILL instruments** at the following URLs:

<https://www.esrf.fr/home/UsersAndScience/find-a-beamline.html>

<https://www.ill.eu/users/instruments/instruments-list>

► Tutorials and Labs

Meeting points: see page 45*

21st, 27th, 28th MARCH and 10th APRIL, 14:00 – 17:30

TUTORIAL / LAB	INSTRUCTOR(S)	TITLE	SITE	21 March	27 March	28 March	10 April
Lab-AI	COQUELLE Nicolas	Development and use of artificial intelligence in Structural biology	IBS			b02 b05 b07 b15 b21	b06 b12 b14 b17 b22
CDI ptycho	FAVRE-NICOLIN Vincent	Coherent imaging data analysis (CDI, Ptychography, holo-tomography) using PyNX	IBS	b02 b06 b09 b13			
Lab-EMAPS	DE ZITTER Elke	Macromolecular model building and analysis in electron density maps using COOT	IBS		b01 b10 b15 b22	b06 b11 b12 b13	
Lab-CRYST	SPANO Monika, HJORTH-JENSEN Samuel	Bio-macromolecular crystallization	IBS		b03 b04 b11 b12	b01 b08 b17 b19	
Tuto-MOLDYN	PETERS Judith	Molecular dynamics probed by neutron spectroscopy	IBS		b06 b08 b13 b19 b21	b09 b10 b14 b18 b22	
Lab-NMR	FAVIER Adrien, VALLET Alicia	Protein-Protein interaction binding site determination by NMR chemical shift mapping	IBS		b07 b14 b16 b17 b20		b03 b05 b08 b11 b13 b15 b21
Tuto-NSE	PLAZANET Marie	Investigating diffusion in complex liquids by neutron spin echo	IBS	b01 b03 b05 b10 b19 b21			
Tuto-PyFAI	KIEFFER Jerome	Scattering data: calibration and reduction with pyFAI (covers SAS, powder diffraction and PDF)	SB salle 125	b04 b14 b16 b17 b20 b22			
Lab-SMLM	GLUSHONKOV Oleksandr	Introduction to Single-Molecule Localization Microscopy (SMLM)	IBS		b02 b05 b09 b18	b03 b04 b16 b20	
Tuto-3D	BUCKLEY Chris	Molecular imaging in neurology, oncology and cardiology	IBS				b01 b02 b04 b07 b09 b10 b16 b18 b19 b20
Tuto-XFEL	BRESSLER Christian	Time-Resolved X-Ray Emission Spectroscopy and Diffraction with an XFEL	IBS	b07 b08 b11 b12 b15 b18			

TUTORIALS:

For some tutorials, you will need to **install specific software beforehand**, to be able to do the data treatment. In that case, your instructor will send you an email before the tutorial and/or will give this information in the summary of the tutorial on the Hercules website. **If you have no computer or do not have the required OS system** for a particular tutorial, you may either share a laptop with another participant or borrow a PC Windows laptop.

***Meeting points, at 13:50, for the tutorials and labs:**

Location '**ESRF**': Hall of ESRF central building

Location '**SB**': Entrance hall of the Science Building (SB)

Location '**CIBB**': Go directly to the **CIBB seminar room** on 2nd floor

Location '**IBS**': Hall of IBS building



PROGRAMME of PARTNERS *Full-Time participants only*



ALBA synchrotron (Barcelona, Spain)



DESY Deutsches Elektronen-Synchrotron (Hamburg, Germany)



KIT light source (Karlsruhe, Germany)



SOLEIL synchrotron (Saint-Aubin, Paris area, France)



ALBA



DESY



KIT



SOLEIL



GENERAL PLANNING for 31 March – 4 April

Arrival at the hotel on Saturday 29 March and departure on Saturday 5 April.

All practical information concerning travel and accommodation will be provided separately.

ALBA web site: www.cells.es

ALL GROUPS: Monday 31 March

TIME	TITLE	SPEAKER	ROOM
9:00	HERCULES Welcome	Organizers	Maxwell Audit.
9:15	Welcome message	Caterina Biscari	
9:30	Safety at ALBA	Victor Garrido	
9:45	Full Field Soft X-ray transmission microscopy	Andrea Sorrentino	
10:15	FaXToR: The new fast tomography beamline at the ALBA synchrotron	Alessandra Patera	
10:45	Coffee break		
11:15	Soft X-ray absorption and X-ray magnetic circular dichroism	Javier Herrero	
11:45	Photo Emission Electron Microscopy (PEEM) and Low Energy Electron Microscopy (LEEM)	Miguel Ángel Niño	
12:30	Lunch		
13:30	Ambient Pressure XPS: Technique and Applications	Virginia Pérez Dieste	Maxwell Audit.
14:00	The electrochemical NAP-XPS	Juan J. Velasco	
14:30	LOREA: the ARPES beamline at ALBA, from UV to Soft X-ray	Ji Dai	
15:00	InCAEM: infrastructure for correlative analysis of advanced energy materials	Lucia Aballe	
15:30	Coffee break		
16:00	Guided Tour to ALBA and microscopy platform	Alina, Claudia, Marc	
17:30	End of the day		



Tuesday 1 April and Wednesday 2 April

SESSION A:

Beamline	TITLE	INSTRUCTORS	1 April all day	2 April all day
BL 09	Practical at MISTRAL: XMCD and magnetic vector tomography using Soft X-ray Transmission Microscopy	Claudia Fernandez	A3	A2
BL 22	Practical at CLAEISS: X-ray absorption spectroscopy to access the local structural and electronic properties of the matter	Oleg Usoltsev, Vlad Martin-Diaconescu	A1	A3
Training room	Correlative data methodology	Marc Raventós, Joaquín Otón	A2	A1

SESSION B:

Beamline	TITLE	INSTRUCTORS	1 April		2 April	
			9:00	14:30	9:00	14:30
BL 01	Practical at MIRAS: Data collection using the synchrotron-based FTIR microscope at MIRAS BL	Martin Kruezer Tanja Ducic	B1		B2	
Cryo-TEM	Practical at Cryo-EM: What can cryo EM do for you?	Pablo Guerra Lahoz		B1		B2
BL 11	Practical at NCD-SWEET: Structural changes of nanomaterials in function of temperature: SAXS/WAXS experiment	Marc Malfois, Cristián Huck	B2	B2	B1	B1

ALL:

20:00	Wednesday April 2 Social dinner
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Thursday 3 April

SESSION A:

TIME	TITLE	ROOM
9:00	Tutorial: Analysis of data collected at beamlines	Marie Curie or Niels Bohr
11:30	Preparation of an experimental report	
13:30	LUNCH	
14:30	Tutorial: Analysis of data collected at beamlines	Marie Curie or Niels Bohr
17:00	Preparation of an experimental report	

More details on next page for the specific schedule of groups A1, A2, A3

SESSION B:

TIME	TITLE	ROOM
9:00	Tutorial: Analysis of data collected at beamlines	Tesla training room
11:30	Preparation of an experimental report	
13:30	LUNCH	
14:30	Tutorial: Analysis of data collected at beamlines	Tesla training room
17:00	Preparation of an experimental report	

More details on next page for the specific schedule of groups B1 and B2



Tutorials at ALBA, 3 April

SESSION A:

ROOM	TITLE	INSTRUCTORS	3 April	
			9:00	14:30
Niels Bohr	MISTRAL: Exploring Magnetic Materials: Scientific Case Studies Using Soft-Xray Transmission Microscopy	Sandra Ruiz	A3	A2
Marie Curie	Analysis of XAS data collected at CLAES: XANES linear combination approach (Athena program)	Carlo Marini		A1+A3
Marie Curie	Machine learning for correlative data analysis:	Marc Raventós, Joaquín Otón	A1+A2	

SESSION B:

ROOM	TITLE	INSTRUCTORS	3 April	
			9:00	14:30
Tesla training room	Analysis of data collected at NCD-SWEET: Data reduction using pyFAI software. Preliminary data analysis using SasView software with initial interpretation	Marc Malfois, Cristián Huck	B1+B2	
Tesla training room	Analysis of data collected at MIRAS: Infrared data handling (chemical imaging and statistical analysis)	Martin Kruezer		B1+B2

► ALBA



Friday, 4 April

TIME	TITLE	ROOM
9:00	Preparation of an experimental report: Final touches	Marie Curie Niels/Bohr/Bragg
	Presentation of the reports:	Maxwell Audit.
10:00	Group A1 → CLAESS+Correlative exp.	
10:20	Group A2 → MISTRAL+Correlative exp.	
10:40	Group A3 → MISTRAL+CLAESS exp.	
11:00	POSTER SESSION + COFFEE BREAK	
	Presentation of the reports:	Maxwell Audit.
12:00	Group B1 → NCD+MIRAS exp.	
12:20	Group B2 → NCD+MIRAS exp.	
12:40	Wrap-up session	Maxwell Audit.
13:00	LUNCH	
15:00	One to One meetings with ALBA staff	Beamlines

Please refer to pages 21 – 23 for the nominative list of groups.

► DESY / European XFEL



GENERAL PLANNING for 31 March – 4 April

Arrival at the DESY guesthouse on Saturday 29 March and departure on Saturday 5 April.

All practical information concerning travel and accommodation will be provided separately.

DESY web site: <https://www.desy.de>

Monday, 31 March

TIME	GROUPS A1, A2, A3	GROUPS A4, B1
8:30	Meeting with all in front of CFEL Stay at DESY	Meeting with all in front of CFEL Move to EuXFEL Transportation to EuXFEL (Lighthouse)
9:00	Intro talks to DESY and beamlines and Tours until 12:00	9:00-9:10 / 9:15-10:00 Welcome / Intro EuXFEL Christian Bressler / Thomas Feurer 10:15-11:00 XFEL light generation I Gianluca Geloni 11:15-12:00 XFEL light generation II Gianluca Geloni
LUNCH		
13:00	Go to beamlines for DESY practical courses	Go to and explore Lighthouse Exhibition / pickup for tour
14:00		Tour of Experimental Hall
18:00	End of the day	Return to DESY End of the day

Tuesday, 1 April

TIME	GROUPS A1, A2, A3	GROUPS A4, B1
8:30	Day at DESY	Move to EuXFEL / XHO Lounge
9:00	Go to beamlines for DESY practical courses	A4: SEC - Advanced sample characterization and delivery for XFEL experiments (no x-rays) B1: SEC - Sample production and delivery for serial crystallography at XFELs (no x-rays) Contact: Joachim Schulz
12:00	LUNCH	
13:00-18:00	Go to beamlines for DESY practical courses	A4: SEC - Advanced sample characterization and delivery for XFEL experiments (no x-rays) B1: SEC - Sample production and delivery for serial crystallography at XFELs (no x-rays) Contact: Joachim Schulz
18:00	End of the day	Return to DESY End of the day

► DESY / European XFEL



Wednesday, 2 April

TIME	GROUPS A1, A2, A3	GROUPS A4, B1
8:30	Move to EuXFEL Lighthouse for EuXFEL practicals sessions day	Day at DESY
9:00	A1: Pickup to XPD practical A2: Pickup to FXE practical A3: Pickup to SQS practical	Intro talks to DESY and beamlines and Tours until 12:00
10:00	A1: XPD - X-Ray Diagnostics Practical , Naresh Kujula A2: FXE - Spectroscopy with high energy X-rays , Chris Milne A3: SQS - Non-linear ionization of small quantum systems with intense X-rays (soft x-rays), Tommaso Mazza	
12:00	LUNCH	
13:00	A1: XPD - X-Ray Diagnostics Practical , Naresh Kujula A2: FXE - Spectroscopy with high energy X-rays , Chris Milne A3: SQS - Non-linear ionization of small quantum systems with intense X-rays (soft x-rays), Tommaso Mazza	Go to beamlines for DESY practical courses
18:00	End of the day	End of the day

Thursday, 3 April

TIME	GROUPS A1, A2, A3	GROUPS A4, B1
8:30	Meeting with all in front of CFEL Move to EuXFEL Transportation to EuXFEL headquarters building (XHQ)	Meeting with all in front of CFEL Day at DESY
9:00-12:15	9:00-9:10 / 9:15-10:00 Welcome / XFEL light generation I Christian Bressler / Gianluca Geloni	Go to beamlines for DESY practical courses
	10:15-11:00 XFEL light generation II Gianluca Geloni	
	11:15-12:00 Intro EuXFEL Thomas Feurer	
LUNCH		
13:00	Lighthouse Exhibition	Go to beamlines for DESY practical courses
14:00	Data Analysis (CTRL) +(FXE+XPD+SQS) Steffen Hauff, in XHO 1.08	
15:30-17:15	Automation (DA) Luca Gelisio	
	Return to DESY End of the day	End of the day

► DESY / European XFEL



Friday, 4 April

TIME	GROUPS A1, A2, A3	GROUPS A4, B1
8:30 - 11:30	Meeting point at DESY for all groups to prepare for presentations.	
LUNCH		
12:30 - 14:30	Presentation and discussion	
THE END		

PRACTICALS at DESY

PHYSICS AND CHEMISTRY (A-GROUPS)

Group A1	P03 GISAXS Beamline	Sarathlal Koyiloth Vayalil
Group A2	P21.1 High energy X-ray Beamline	Fernando Igoa Saldana, Ann-Christin Dippel
Group A3	P62: SAXS Beamline	Sylvio Haas
Group A4	P61: Large Volume Press Beamline	Robert Farla

BIO (B-GROUP)

Group B1	P11 MX Beamline	Johanna Hakanpaeae
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You are requested to bring your own laptop or indicate whether you need a EuXFEL laptop at least two weeks before coming to Hamburg. WIFI connection and password will be provided at EuXFEL.

All participants (from the A and B sessions) will meet their tutors either at the XHQ Foyer or at BKR/DESY, then the tutors will guide them to the appropriate location (room or beamline) and explain how this will continue over day.



GENERAL PLANNING for 31 March – 5 April.

Arrival at the hotel on Saturday 29 March evening at the guesthouse and departure on Saturday 5 April morning.

All practical information concerning travel and accommodation will be provided separately.

ALL GROUPS:

Monday, March 31

	Biologists (B)	Phys., Mat.Scient. (A2)	Phys., Mat.Scient. (A1)
07:30	Meeting Point at KIT Guest House Olaf Baake		
8:00-08:25	Transfer to Campus North (KIT Shuttle) Olaf Baake		
08:25	Registration to KIT Campus North (Passport/ID required) Olaf Baake		
up to 9:15	Get together/Coffee Bldg. 348 Small Seminar Room		
9:15-9:30	Welcome Bldg. 348 Seminar Room Tilo Baumbach		
9:30-10:15	Lecture: Research with Synchrotron Radiation at KIT Bldg. 348 Seminar Room Tilo Baumbach		
10:15-11:00	Lecture: Introduction to the Karlsruhe Accelerator Test Facility (KARA) Bldg. 348 Seminar Room Marcel Schuh		
11:00-11:20	Coffee break Bldg. 348 Small Seminar Room		
11:20-12:10	Instruction: Safety and Radiation Protection Bldg. 348 Seminar Room Pawel Wesolowski		
12:10-13:00	Tour: KARA and KIT Light Source Beamline Clusters Bldg. 348 Tilo Baumbach		
13:00-14:00	Lunch Break KIT Casino		
14:00-17:30	European Zebrafish Resource Center; Medaka fish inbreeding; small animal sample preparation Bldg. 348 (Meeting Point) Felix Loosli & al.	Startup of the Electron Storage Ring KARA Bldg. 348 Control Room Marcel Schuh, Johannes Steinmann, Edmund Blomley, Bastian Härer	
KIT-Shuttle: Campus North to Campus South: 17:35-17:56 (every 30 min, last departure: 19:05)			



Tuesday, April 1

	Biologists (B)	Phys., Mat.Scient. (A2)	Phys., Mat.Scient. (A1)
up to 9:15	Get together/Coffee Bldg. 348 Small Seminar Room		
9:15-10:45	Lecture 1 Small Animal X-ray Imaging with Synchrotron Radiation Bldg. 348 Seminar Room Thomas van de Kamp	Lecture 1 Micro-Tomography & Laminography with Synchrotron Radiation - Part I Bldg. 345 Seminar Room Tilo Baumbach	Lecture 1 Hard X-ray Absorption Spectroscopy with Synchrotron Radiation: Beamline Optics, Experiment, Data Acquisition Bldg. 329 Seminar Room Jörg Rothe
10:45-11:15	Coffee Bldg. 348 Small Seminar Room		
11:15-12:00	Tutorial 1 - Part I Experimentals: The Ufo station, Concert control system, detector alignment, sample alignment, data acquisition, automated DAQ Bldg. 348 Seminar Room Angelica Cecilia		11:15-13:00 Tutorial 1 Introduction to specific requirements for XAS samples and preparation of transmission samples for XAS experiments Bldg. 329 Seminar Room Jörg Rothe
12:00-13:00	Lunch Break KIT Casino	Tutorial 1 - Part II Introduction to the beamline and control system Bldg. 348 IMAGE Beamline Tomas Farago	
13:00-14:00	Tutorial 1 - Part II Introduction to the beamline and control system Bldg. 348 IMAGE Beamline Marcus Zuber	13:00-14:00 Lunch Break KIT Casino	
14:00-15:30	Experiment 1 Computed Laminography of Fossils Bldg. 348 IMAGE Beamline Daniel Hänschke, Elias Hamann, Marcus Zuber	Lecture 2 Micro-Tomography & Laminography with Synchrotron Radiation - Part II Bldg. 345 Seminar Room Tilo Baumbach	Experiment 1 Sample preparation in the on-site chemistry lab Bldg. 348 INE Beamline Kathy Dardenne, Tim Pruessmann, Jörg Rothe
15:30-16:00	Coffee Bldg. 348 Small Seminar Room		
16:00-17:30	Tutorial 2 2D and 3D Image Reconstruction Bldg. 329 Seminar Room Tomas Farago	Experiment 1 Computed Laminography of Flat Devices Bldg. 348 IMAGE Beamline Daniel Hänschke, Elias Hamann, Marcus Zuber	Experiment 2 Introduction to beamline components, sample installation, alignment and data acquisition macros Bldg. 348 INE Beamline Kathy Dardenne, Tim Pruessmann, Jörg Rothe



Wednesday, April 2

	Biologists (B)	Phys., Mat.Scient. (A2)	Phys., Mat.Scient. (A1)
up to 9:15	Get together/Coffee Bldg. 348 Small Seminar Room		
9:15-10:45	Lecture 2 X-ray imaging of insects to study evolution, biodiversity, and functional morphology Bldg. 329 Seminar Room Thomas van de Kamp	Tutorial 2 2D and 3D Image Reconstruction Bldg. 345 Seminar Room Tomas Farago	Lecture 2 Actinide electronic structure and speciation using high energy resolution X-ray emission and absorption spectroscopy Bldg. 348 Seminar Room Tonya Vitova
10:45-11:15	Coffee Bldg. 348 Small Seminar Room		
11:15-12:45	Reconstruction Lamino Bldg. 329 Library Matthias Hurst	Reconstruction Lamino Bldg. 329 Library Simon Bode	Tutorial 2 Introduction to XAFS data analysis (XANES and EXAFS) Bldg. 348 Seminar Room Kathy Dardenne
12:45-14:00	Lunch Break KIT Casino		
14:00-15:30	Segmentation & Analysis Lamino reconstruction Bldg. 329 Library Daniel Hänsche, Elias Hamann, Mathias Hurst, Marcus Zuber	Segmentation & Analysis Lamino reconstruction Bldg. 329 Library Matthias Hurst, Simon Bode	Experiment 2 Retrieval of data sets acquired during the night, first steps of data analysis (calibration, alignment, averaging, background subtraction, normalization, ...) Bldg. 348 Seminar Room Kathy Dardenne
15:30-16:00	Coffee Bldg. 348 Small Seminar Room		
16:00-17:30	Segmentation & Analysis Lamino reconstruction Bldg. 329 Library Daniel Hänsche, Elias Hamann, Mathias Hurst, Marcus Zuber	Segmentation & Analysis Lamino reconstruction Bldg. 329 Library Daniel Hänsche, Elias Hamann, Mathias Hurst, Marcus Zuber	Experiment 2 to be continued if required Bldg. 348 Seminar Room Kathy Dardenne



Thursday, April 3

	Biologists (B)	Phys., Mat.Scient. (A2)	Phys., Mat.Scient. (A1)
up to 9:15	Get together/Coffee Bldg. 348 Small Seminar Room		
9:15-10:45	Lamino Analysis, Segmentation, 3D Printing - Part I Bldg. 329 Library Daniel Hänsche, Elias Hamann, Mathias Hurst, Marcus Zuber	Experiment 2 - Part I Towards Serial Micro-Tomography of Materials and Devices Bldg. 348 IMAGE Beamline Marcus Zuber, Elias Hamann, Angelica Cecilia	Lecture 1 Introduction into (hard) x-ray photoelectron spectroscopy Bldg. 345 Seminar Room Dirk Hauschild
10:45-11:15	Coffee Bldg. 348 Small Seminar Room		
11:15-12:45	Lamino Analysis, Segmentation, 3D Printing - Part II Bldg. 329 Library Daniel Hänsche, Elias Hamann, Mathias Hurst, Marcus Zuber	Experiment 2 - Part II Towards Serial Micro-Tomography of Materials and Devices Bldg. 348 IMAGE Beamline Marcus Zuber, Elias Hamann, Angelica Cecilia	Experiment 1 - Part I Hard x-ray photoelectron spectroscopy (HAXPES) of thin-film solar cell samples Bldg. 348 X-SPEC Beamline Constantin Wansorra, Dirk Hauschild, Lothar Weinhardt
12:45-14:00	Lunch Break KIT Casino		
14:00-15:30	Experiment 2 - Part I 1Morphological Imaging of Small Animals by Serial Micro-Tomography (Sample Medaka) Bldg. 348 IMAGE Beamline Marcus Zuber, Angelica Cecilia, Thomas van de Kamp	Reconstruction & Analysis CT Part I Bldg. 329 Library Chandan Sarkar, Clement Tavakoli	Experiment 1 - Part II Hard x-ray photoelectron spectroscopy (HAXPES) of thin-film solar cell samples Bldg. 348 X-SPEC Beamline Constantin Wansorra, Dirk Hauschild, Lothar Weinhardt
15:30-16:00	Coffee Bldg. 348 Small Seminar Room		
16:00-17:30	Experiment 2 - Part II 1Morphological Imaging of Small Animals by Serial Micro-Tomography (Sample Medaka) Bldg. 348 IMAGE Beamline Marcus Zuber, Angelica Cecilia, Thomas van de Kamp	Image analysis: volume rendering and semi-manual segmentation Bldg. 329 Library Alexey Ershov	Tutorial 1 Data analysis: Hard x-ray photoelectron spectroscopy (HAXPES) Bldg. 348 X-SPEC Beamline Constantin Wansorra, Dirk Hauschild, Lothar Weinhardt



Friday, April 4

	Biologists (B)	Phys., Mat.Scient. (A2)	Phys., Mat.Scient. (A1)
up to 9:15	Get together/Coffee Bldg. 348 Small Seminar Room		
9:15-10:45	Reconstruction & Analysis CT Part I Bldg. 329 Seminar room Chandan Sarkar, Clement Tavakoli	Lamino Analysis, Segmentation, 3D Printing, Report - Part I Bldg. 329 Library Daniel Hänsche, Elias Hamann, Mathias Hurst, Marcus Zuber	Lecture 2 Introduction into soft x-ray spectroscopy Bldg. 345 Seminar Room Lothar Weinhardt
10:45-11:15	Coffee Bldg. 348 Small Seminar Room		
11:15-12:45	Image analysis: volume rendering and semi-manual segmentation Bldg. 329 Seminar room Thomas van de Kamp, Angelica Cecilia, Alexey Ershov, Jenny Hein	Lamino Analysis, Segmentation, 3D Printing, Report - Part II Bldg. 329 Library Daniel Hänsche, Elias Hamann, Mathias Hurst, Marcus Zuber	Experiment 2 - Part I X-ray emission spectroscopy (XES) and Resonant inelastic soft x-ray scattering (RIXS) Bldg. 348 X-SPEC Beamline Ralph Steininger, Lothar Weinhardt, Constantin Wansorra
12:45-14:00	Lunch Break KIT Casino		
14:00-15:30	Preparation - Presentation and Discussion - Part I Bldg. 329 Seminar Room All	Preparation - Presentation and Discussion - Part I Bldg. 345 Seminar Room All	Experiment 2 - Part II X-ray emission spectroscopy (XES) and Resonant inelastic soft x-ray scattering (RIXS) Bldg. 348 X-SPEC Beamline Ralph Steininger, Lothar Weinhardt, Constantin Wansorra
15:30-16:00	Coffee Bldg. 348 Small Seminar Room		
16:00-17:30	Presentation and Discussion - Part II Bldg. 329 Seminar Room All	Presentation and Discussion - Part II Bldg. 345 Seminar Room All	Tutorial 2 Data analysis: X-ray emission spectroscopy (XES) and Resonant inelastic soft x-ray scattering (RIXS) Bldg. 348 X-SPEC Beamline Ralph Steininger, Lothar Weinhardt, Constantin Wansorra
Dinner Badisch Brauhaus, Stephaniensstraße 38-40, Karlsruhe			



GENERAL PLANNING for 31 March – 5 April.

Arrival at the hotel on Saturday 29 March evening and departure on Saturday 5 April morning.

All practical information concerning travel and accommodation will be provided separately.

SOLEIL website: <https://www.synchrotron-soleil.fr/fr>

Monday, 31 March

TIME/SESSION	TITLE	SPEAKER	ROOM
8:30	Breakfast SOLEIL Reception building		
9:00 A+B	Welcome message - SOLEIL	Jean SUSINI	Auditorium
9:30 A+B	How light became a wave?	Sylvain RAVY	Auditorium
11:00	Coffee break Cafeteria area		
11:30 A+B	Seminar : Upgrade SOLEIL II	L. NADOLSKI	Auditorium
12:30	LUNCH (Soleil CANTEEN)		
13:30	Synchrotron visit		
14:30 A	Lecture : ARPES	Andrés SANTANDER	A1.0.59 Phenix
14:30 B	Lecture : Circular dichroism	F. WIEN	A2.1.32 Libra
16:00	Coffee break Room Phénix		
16:30-18:00 A+B	Lecture : Calculation of a hard X-ray beamline	T. MORENO	Auditorium



Tuesday, 1 April

FOR ALL PARTICIPANTS

TIME	TITLE	BEAMLINES/ROOM
9:00/12:00	PRACTICALS 	SOLEIL beamlines: A1 : HERMES A2 : AILES A3 : ODE A4 : CRISTAL B1: PX1 PX2 SWING DISCO B2 : SMIS
12:00/13:30	LUNCH (Soleil CANTEEN)	
13:30/18:00	PRACTICALS 	SOLEIL beamlines: A1 : HERMES A2 : AILES A3 : ODE A4 : CRISTAL B1: PX1 PX2 SWING DISCO B2 : SMIS

Wednesday, 2 April

FOR ALL PARTICIPANTS

TIME	TITLE	BEAMLINES/ROOM
9:00/12:00	PRACTICALS 	SOLEIL beamlines: A1 : HERMES A2 : PSICHE A3 : AILES A4 : ROCK B1 : PX1 PX2 SWING DISCO B2 : LUCIA
12:00/13:30	LUNCH (Soleil CANTEEN)	
13:30/18:00	PRACTICALS 	SOLEIL beamlines: A1 : HERMES A2 : PSICHE A3 : AILES A4 : ROCK B1 : PX1 PX2 SWING DISCO B2 : LUCIA

Thursday, 3 April

► SOLEIL



FOR ALL PARTICIPANTS

TIME	TITLE	SPEAKER	ROOM
9:00	LECTURE : IR spectroscopy	Ferenc BORONDICS	Auditorium
10:30	Coffee break - Cafeteria area		
11:00	TUTORIAL: Data analysis and machine learning	Ferenc BORONDICS Christophe SANDT	Auditorium
12:30	LUNCH (Soleil CANTEEN)		
13:30	TUTORIAL: Simulation code Beam Line	Emmanuel FARHI	Auditorium
15:00	Coffee break - Cafeteria area		
15:30	LECTURE : Heritage research with synchrotron techniques	Sebastian SCHOEDER	Auditorium
17:00/18:00	SEMINAR : Project management and funding	Ana VALCARCEL ORTI	Auditorium

Friday, 4 April

FOR ALL PARTICIPANTS

TIME	TITLE	SPEAKER	ROOM
9:00	Talk preparation	FREE SESSION	A2.1.22 Pyxis A1.1.48 Virgo A2.1.32 Libra A1.0.59 Phenix A1.1.57 Orion A2.1.31 Gemini
10:30	Coffee break - Cafeteria area		
11:00	Talk preparation	FREE SESSION	A2.1.22 Pyxis A1.1.48 Virgo A2.1.32 Libra A1.0.59 Phenix A1.1.57 Orion A2.1.31 Gemini
12:30	LUNCH (Soleil CANTEEN)		
14:00	STUDENTS PRESENTATION AND EVALUATION MEETING 	PUBLIC SESSION	Auditorium
16:00	GROUP PHOTO 		
16:30-18:00	SEE YOU SOON DRINK - Cafeteria area		

PRACTICALS AT SOLEIL, 1 – 2 April



SESSION A:

BEAMLINE	TITLE	INSTRUCTORS	1 APRIL	2 APRIL
HERMES	High resolution magnetic microscopy using STXM	Rachid BELKHOUE	A1	
AILES	Phase transition of Ge under high pressure	Silvia PANDOLFI Marine VERSEILS Laura HENRY	A2	
ODE	Spin transition in molecular magnets studied by IR THz spectroscopy and XAFS	Jean-Blaise BRUBACH Maria DRONOVA Lucie NATAF	A3	
CRISTAL	Diffraction	Valérie BRIOIS Anthony BEAUVOIS Eric ELKAIM	A4	
HERMES	STXM microscopy soft X-rays	Rachid BELKHOUE		A1
PSICHE	Phase transition of Ge under high pressure	Silvia PANDOLFI Marine VERSEILS Laura HENRY		A2
AILES	Spin transition in molecular magnets studied by IR THz spectroscopy and XAFS	Jean-Blaise BRUBACH Maria DRONOVA Lucie NATAF		A3
ROCK	Quick EXAFS	Valérie BRIOIS Anthony BEAUVOIS Eric ELKAIM		A4

SESSION B:

BEAMLINE/LAB	TITLE	INSTRUCTOR	1 APRIL	2 APRIL
PX1 PX2 SWING DISCO	Protein Structure	William SHEPARD Frank WIEN Aurelien THUREA Pierre MONTAVIL Serena SIRIGU	B1	B1
SMIS	XRF imaging	Christophe SAND	B2	
LUCIA	IR spectroscopy	Camille RIVARD		B2

Please refer to pages 21-23 for the nominative list of groups A1, A2, A3, A4, B1, and B2.

HERCULES2025

9th March > 12th April, 2025

LECTURERS of GRENOBLE (weeks 1, 2, 3, 5)

FAMILY NAME	First name	Institute
ALLGAIER	Jürgen	Forschungszentrum Jülich
APPEL	Markus	ILL
ATTWOOD	David	University of California, Berkeley
BALÉDENT	Victor	Université Paris Saclay
BALLANDRAS-COLAS	Allison	IBS
BARENDs	Thomas	Max Planck Institute for Medical Research
BARNES	Adrian	University of Bristol, Department of Physics
BARRETT	Ray	ESRF
BLACKLEDGE	Martin	IBS
BLAKELEY	Matthew	ILL
BOURGEOIS	Dominique	IBS
BRECHOT	Veronique	CNRS
BUCKLEY	Chris	GE HealthCare
CERNY	Radovan	Univ. Genève
CHAMARD	Virginie	Institut Fresnel
CLOETENS	Peter	ESRF
COATI	Alessandro	SOLEIL
COLIN	Claire	UGA / CEA-IRIG
CZAKKEL	Orsolya	ILL
Davies	Richard	ILL
DE BEER	Serena	Max Planck Institute for Chemical Energy Conversion
DE BOISSIEU	Marc	SIMaP
DE ZITTER	Elke	School of life sciences, University of Sussex
DELMOTTE	Marine	UGA
DIAZ-LOPEZ	Maria	Institut Néel
DIL	Hugo	EPFL
FAVRE-NICOLIN	Vincent	ESRF
FOGLIA	Fabrizia	UCL
GABEL	Frank	IBS
GARCIA SAKAI	Victoria	ISIS
GERELLI	Yuri	Univ. Politecnica delle Marche
GÖTZ	Andy	ESRF
GRAAFSMA	Heinz	DESY Hamburg

FAMILY NAME	First name	Institute
GRÜEBEL	Gerhart	European XFEL
GUIZAR-SICAIROS	Manuel	PSI
HARRISON	Andrew	ELI ERIC
HJÖRVARSSON	Björgvin	Uppsala University
JACOBSEN	Chris	Northwestern University
JUHIN	Amélie	UPMC
LANGRIDGE	Sean	ISIS
LE TACON	Matthieu	KIT
LYONNARD	Sandrine	CEA-IRIG
MADSEN	Anders	European XFEL
MOULIN	Martine	ILL
MUELLER	Martin	Helmholtz-Zentrum Geesthacht
MULLER-BUSCHBAUM	Peter	Technische Universität München
PAOLASINI	Luigi	ESRF
PASCARELLI	Sakura	European XFEL
PERRING	Toby	ISIS
PILLET	Sébastien	Université de Lorraine
PIOVANO	Andrea	ILL
PITHAN	Linus	DESY Hamburg
QURESHI	Navid	ILL
RENNIE	Adrian	Dept. of Physics, Uppsala University
RICHARD	Marie-Ingrid	ESRF
ROGALEV	Andrei	ESRF
SAUTER	Claude	IBMC, Univ. Strasbourg
SCHIRO	Giorgio	IBS
SCHMIDT	Ella Mara	University of Bremen
SCHNEIDER	Claus	Forschungszentrum Jülich
SCHREIBER	Frank	Tübingen University
SPANO	Monika	IBS
STAUB	Urs	PSI
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9th March > 12th April, 2025

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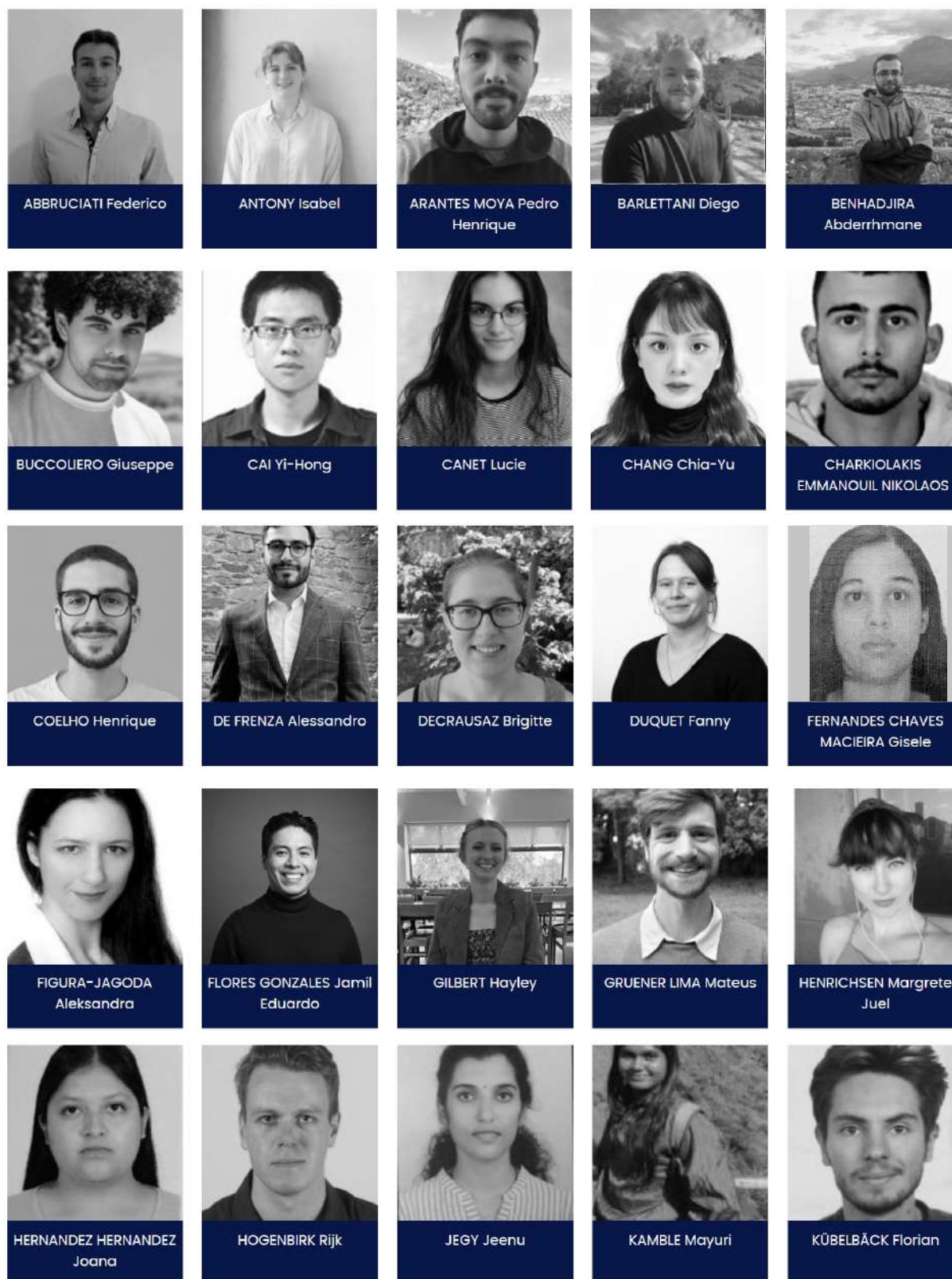
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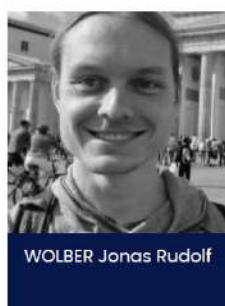
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PORTRAIT GALLERY - SESSION A - Full Time Participants



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CAMPO Micaela



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SINGH HARPREET



SURESH KUMAR
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Handwriting practice lines consisting of 20 horizontal dashed blue lines.

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