

HERCULES

European School

Neutrons and synchrotron radiation for science

Mostly online and partly on site

Last update: 18/03/2022

2022

28th February
to 1st April

Grenoble
FRANCE

Online for weeks 1, 2, 3, 5 organised by Grenoble

Online for week 4 organised by PSI and KIT

On site for week 4 organised by SOLEIL and DESY / EuXFEL

<https://hercules-school.eu/>



UGA
Université
Grenoble Alpes

GRENOBLE
INP
UGA



cnrs

European
XFEL

cea

PAUL SCHERRER INSTITUT
PSI

ILL
NEUTRONS
FOR SOCIETY

SOLEIL
SYNCHROTRON

ibs
Institut de Biologie Structurale

KIT
Karlsruher Institut für Technologie

ESRF
The European Synchrotron

DECTRIS
detecting the future

CONTENTS

»» ORGANISATION	p. 3
»» GENERAL INFORMATION	p. 7
»» PRACTICAL INFORMATION	p. 8
»» PROGRAMME ONLINE OF GRENOBLE	
» Planning Session A - Physics and chemistry of condensed matter	
- general schedule	p. 19
- practicals / labs / tutorials	p. 23
» Planning Session B - Biomolecular and soft condensed matter	
- general schedule	p. 31
- practicals / labs / tutorials	p. 35
»» PROGRAMME OF PARTNERS ONLINE	
» PSI	p. 42
» KIT	p. 45
»» PROGRAMME OF PARTNERS ON SITE	
» SOLEIL	p. 46
» DESY / European XFEL	p. 48
»» LECTURERS AND INSTRUCTORS	
» Lecturers of Grenoble's programme.....	p. 52
» Instructors of Grenoble's programme.....	p. 53
» Lecturers and instructors of Partners' programme.....	p. 55
»» PARTICIPANTS	
» List for Session A	p. 57
» List for Session B	p. 61
» Portrait gallery	p. 62

ORGANISATION

ORGANISED BY:

Université Grenoble Alpes (UGA)
Grenoble INP

SCIENTIFIC ADVISORY COMMITTEE

M. ALTARELLI, DESY Hamburg
M. A. G. ARANDA, ALBA Barcelona
M. BALLAUF, University of Bayreuth
T. BAUMBACH, KIT Karlsruhe
C. CARLILE, ESS Lund
S. CUSACK, EMBL Grenoble
J. DAILLANT, Synchrotron SOLEIL Saint Aubin
P. DAY, Royal Institution London
E. ELIOT, LLB Saclay
J. ESTRADE, ILL Grenoble
R. FEIDENHANS'L, European XFEL Hamburg
A. FRANCIOSI, Elettra Sincrotrone Trieste
J. HELLIWELL, Univ. of Manchester
M. R. JOHNSON, ILL Grenoble

P. KING, ISIS Didcot
G. MARGARITONDO, EPF Lausanne
Y. PETROFF, LNLS Campinas
W. PETRY, FRMII Munich
H. REICHERT, ESRF Grenoble
D. RICHTER, IFF-Institute Jülich
C. RÜEGG, PSI Villigen
H. SCHÖBER, ILL Grenoble
F. SETTE, ESRF Grenoble
J. SUSINI, ESRF Grenoble
A. TAYLOR, ISIS Chilton Didcot
E. WECKERT, DESY Hamburg
W. WEISSENHORN, IBS Grenoble
M. WILMANN, EMBL Hamburg

SUPPORTED BY:

- DECTRIS
- European Synchrotron Radiation Facility (ESRF)
- Institut Laue Langevin (ILL)
- Institut de Biologie Structurale (IBS)
- Deutsches Elektronen-Synchrotron (DESY)
- European XFEL
- Centre National de la Recherche Scientifique (CNRS):
Institut National de Physique & Laboratoires du Polygone Louis Néel, Grenoble
- Commissariat à l'énergie atomique (CEA):
Direction de la Recherche Fondamentale (DRF)
- Synchrotron SOLEIL
- Swiss Light Source (SLS) - Paul Scherrer Institute (PSI)
- Karlsruhe Institute of Technology (KIT)

DIRECTORS

Marc De BOISSIEU, director	Univ. Grenoble Alpes / CNRS / Grenoble INP +33 (0)4 76 82 67 03 marc.de-boissieu_at_simap.grenoble-inp.fr
Béatrice GRENIER, director of studies	Univ. Grenoble Alpes / CEA Grenoble / ILL +33 (0)4 76 20 74 23 grenier_at_ill.fr
Giorgio SCHIRO, deputy director	CNRS / IBS +33 (0)4 57 42 86 94 giorgio.schiro_at_ibs.fr

FOUNDING DIRECTORS

Jean-René REGNARD, UGA / CEA Grenoble

Claire SCHLENKER, Grenoble INP

EUROPEAN SCHOOLS ORGANISING OFFICE AND CONTACTS

Isabelle GAUVIN	Univ. Grenoble Alpes isabelle.gauvin_at_univ-grenoble-alpes.fr
Youlia MAZET	Univ. Grenoble Alpes youlia.mazet_at_univ-grenoble-alpes.fr
Clotilde BONHOURE EFFANTIN	Univ. Grenoble Alpes clotilde.effantin_at_univ-grenoble-alpes.fr
Joseph GERMIANO	Univ. Grenoble Alpes joseph.germiano_at_univ-grenoble-alpes.fr

ORGANISING COMMITTEE

BAUMBACH Tilo tilo.baumbach_at_kit.edu	KIT	KIT local coordinator / contact	+49 721 608 26820
BEUTIER Guillaume guillaume.beutier_at_simap.grenoble-inp.fr	SIMaP	ESRF contact	+33 (0)4 76 82 66 09
BONHOURE-EFFANTIN Clotilde clotilde.effantin_at_univ-grenoble-alpes.fr	UGA	HERCULES organisation	+33 (0)4 56 38 71 50
BRIANT Hazel hazel.briant_at_synchrotron-soleil.fr	SOLEIL	Synchrotron SOLEIL local coordinator / contact	+33 (0)1 69 35 99 48
COATI Alessandro coati_at_synchrotron-soleil.fr	SOLEIL	Synchrotron SOLEIL local coordinator / contact	+33 (0)1 69 35 96 78
DALMAS Pierre pierre.dalmas-de-reotier_at_cea.fr	CEA Grenoble	CEA contact	+33 (0)4 38 78 52 14
DEMÉ Bruno deme_at_ill.fr	ILL	ILL contact	+33 (0)4 76 20 73 11
DE BOISSIEU Marc marc.de-boissieu_at_simap.grenoble-inp.fr	Grenoble INP	HERCULES direction and organisation	+33 (0)4 76 82 67 03
DUCHASTENIER Valérie duchastenier_at_ill.eu, user-office_at_ill.eu	ILL	ILL user office Practicals at ILL	+33 4 76 20 72 40
FERNANDEZ-MARTINEZ Alejandro alex.fernandez-martinez_at_univ-grenoble-alpes.fr	ISTerre	Organisation Session A Practical	+33 (0)4 76 63 51 97
FRAGNETO Giovanna fragneto_at_ill.fr	ILL	ILL contact	+33 (0)4 76 20 70 62
FRAISSARD Frédérique frederique.fraissard_at_synchrotron-soleil.fr	SOLEIL	HERCULES organisation at Synchrotron SOLEIL	+33 (0)1 69 35 96 52
FÜGLISTER Martina martina.fueglistner_at_psi.ch	PSI	HERCULES organisation at PSI	+41 56 310 31 41
GAUVIN Isabelle isabelle.gauvin_at_univ-grenoble-alpes.fr	UGA	HERCULES organisation and website & HERCULES contact	+33 (0)4 76 88 79 86
GEIST Kirsten kirsten.geist_at_xfel.eu	European XFEL	HERCULES organisation at European XFEL	+49 40 8998 6858
GERMIANO Joseph joseph.germiano_at_univ-grenoble-alpes.fr	UGA	HERCULES organisation	+33 (0)4 56 38 70 03
GRENIER Béatrice grenier_at_ill.fr	UGA / CEA – IRIG – MEM	HERCULES co-direction and website Practicals coordination with Grenoble instructors and partners Organisation Session A Practical, ESRF and ILL visits	+33 (0)4 76 20 74 23
HAGELSTEIN Michael michael.hagelstein_at_kit.edu	KIT	KIT local coordinator / contact	+49 721 608 26186
HEMBERGER Patrick patrick.hemberger_at_psi.ch	PSI	PSI local coordinator / contact	+41 56 310 3265
JOCHIM Leyla leyla.jochim_at_kit.edu	KIT	HERCULES organisation at KIT	+49 721 608 26188
LORET Géraldine loret_at_ill.fr	ILL	HERCULES organisation at ILL	+33 (0)4 76 20 74 18
MANGIN-THRO Lucile mangin-throl_at_ill.fr	ILL	Organisation Session A Practical & ILL visits ILL contact	+33 (0)4 76 20 75 71

MAZET Youlia youlia.mazet_at_univ-grenoble-alpes.fr	UGA	HERCULES organisation	+33 (0)4 56 38 71 51
NATAF Lucie lucie.nataf_at_synchrotron-soleil.fr	SOLEIL	Synchrotron SOLEIL local coordinator / contact	+33 (0)1 69 35 96 62
NOLTING Frithjof frithjof.nolting_at_psi.ch	PSI	PSI local coordinator / contact	+41 56 310 5111
PASCARELLI Sakura sakura.pascarelli_at_xfel.eu	European XFEL	European XFEL local coordinator / contact	+49 40 8998 6858
PAN Zeyou zeyou.pan_at_psi.ch	PSI	PSI local coordinator / contact	+41 56 310 36 14
PERNOT Petra rejma_at_esrf.fr	ESRF	Organisation Session B Practicals, ESRF contact	+33 (0)4 76 88 28 42
PLECH Anton anton.plech_at_kit.edu	KIT	KIT local coordinator / contact	+49 721 608 28665
POREE Victor victor.poree_at_psi.ch	PSI	PSI local coordinator / contact	+41 56 310 36 23
ROMERO Claudine claudine.romero_at_esrf.fr	ESRF	HERCULES organisation at ESRF	+33 (0)4 76 88 20 27
ROUET France france.rouet_at_synchrotron-soleil.fr	SOLEIL	Synchrotron SOLEIL local coordinator / contact	+33 (0)1 69 35 96 90
SCHIRO Giorgio giorgio.schiro_at_ibs.fr	IBS	HERCULES co-direction and website Organisation Session B Practicals	+33 (0)4 57 42 86 94
SEECK Oliver oliver.seeck_at_desy.de	DESY	DESY local coordinator / contact	+49 40 8998 2603
TSCHENTSCHER Thomas thomas.tschentscher_at_xfel.eu	European XFEL	European XFEL local coordinator / contact	+49 40 8998 6827
WILHELM Fabrice wilhelm_at_esrf.fr	ESRF	Organisation Session A Practicals, ESRF contact	+33 (0)4 76 88 24 19

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
(48 full-time and 42 part-time* participants).

SESSION B:

Biomolecular and soft condensed matter
(20 full-time and 4 part-time* participants).

* part-time participants attend only online lectures of weeks 1, 2, 3, and 5

It is mainly organised from Grenoble, from the European Schools Office at the “Maison des Magistères” on the Polygone Scientifique Louis Néel, where the Institut Laue Langevin (ILL) and the European Synchrotron Radiation Facility (ESRF) are also located.

Due to the sanitary context, this 2022 session is mostly organised ONLINE.

See details on: <https://hercules-school.eu/news>

The HERCULES course includes online lectures, remote practicals, labs, and tutorials, together with virtual visits of large scale facilities and an online poster session.

It also includes **one week of practicals and lectures from different locations outside Grenoble from 20th to 25th March** (week 4 of the school) for Full time participants only.

Online course sites: PSI (SLS / SINQ) and KIT

On site course sites: DESY + European XFEL and SOLEIL Synchrotron

The language of the course is **English**. The time zone is **Central European time (UTC+1 for weeks 1, 2, 3, 4, and UTC+2 for week 5**, following the time change occurring on Sunday 27 March in France).

TIMES OF LECTURES, PRACTICALS, LABS AND TUTORIALS

LECTURES organised from Grenoble

(see timetables enclosed in the brochure):

- ▶ in the morning from 8:40 to 12:30 with a 30' coffee break at 10:20
(except on the first day when it starts at 9:30).
- ▶ in the afternoon from 14:00 to 17:50 with a 30' 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 / labs correspond to remote hands-on experiments at large scale facilities ILL and ESRF / in CNRS or IBS laboratories, while tutorials consist mostly in data treatment, without the experimental part.

SCHEDULES

The general schedule (lectures, visits, poster session, ...), followed by the list of all practicals / labs / tutorials, is given in this brochure first for the programme organised by Grenoble, then for the programme organised by 1/ PSI (SLS / SINQ) , 2/ KIT, 3/ SOLEIL, and 4/ DESY / European XFEL. The individual schedule of practicals / labs / tutorials, organised both by Grenoble and by one of our four above-mentioned partner facilities, is given in a separate PDF document for all the participants.

All this information can also be found on the Hercules website (see next page).

PRACTICAL INFORMATION

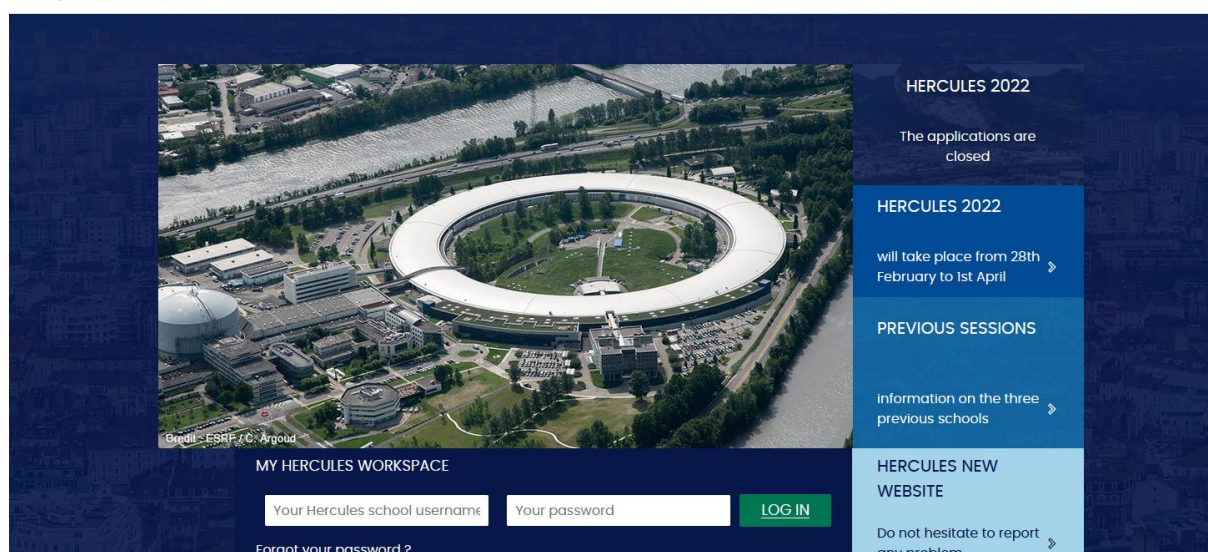
GENERAL INFORMATION ABOUT THE HERCULES WEBSITE

<https://hercules-school.eu>

Our new website has been developed last year and put online last September.
It will thus be used during a Hercules session for the first time this year.
So please, **report any problem at** [webmaster at hercules-school.eu](mailto:webmaster@hercules-school.eu)

HERCULES
European School

HOME ABOUT THE SCHOOL PROGRAMME APPLICATION & FEES PRACTICAL INFO CONTACT



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 gallery, ...

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) → <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” page, from the top to the bottom of the page, followed by some explanations.

Clicking on the icon  at the top of the page allows to see more information on the account (see my account on page 11).

► MY PROFILE

The participants can see here the information about their profile on the website and, by clicking on “Change my password / photo”, 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

The schedule for the lectures of weeks 1, 2, 3, and 5 is now available (see MY SCHEDULE below).

The partner site for the full-time participants has now been decided (you can see this information in the PORTRAIT GALLERY, where you can apply filters on the partner site). As for the Practicals/Labs/Tutorials organised in Grenoble, the schedule will be available by mid-February.

During the school, all **last minute information** will be posted here.

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 2022 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	 t19_test_alba	36.94 KB

► INFORMATION

This part will be updated constantly during the school. **All last minute information and usefull 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. to the participants from the A session or from the group traveling to SOLEIL), will be deposited here, and visible only by the concerned participants.

The screenshot displays two main sections of the HERCULES 2022 interface. On the left, the 'MY SCHEDULE' section shows a calendar view for 'today FEB 28 – MAR 6, 2022'. The schedule for Monday, February 28, 2022, includes: 09:30 am Welcome; 10:50 am Introduction to the science at large scale facilities: neutron, synchrotron and XFEL sources; 02:00 pm Introduction to interactions of X-rays and neutrons with matter (1/2); 04:10 pm Introduction to Synchrotron Radiation, Coherence, and the Evolution to Free Electron Lasing; and 06:00 pm Welcome cocktail on Gather town. The right section, 'EVALUATION', shows a 'FOLLOW-UP OF EVALUATIONS' table with two rows for 'LECTURE 1' and 'LECTURE 2', both dated 15/02/2022, each with an 'EVALUATE' button. A progress indicator '0 / 2' is shown at the top right of the evaluation section.

► MY SCHEDULE

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

- Lectures from the common (●), A (●) or B (●) session
- Practicals / labs / tutorials from the A (●) or B (●) session
- Other events (welcome cocktail, questions on lectures, poster session, ...)

By clicking on one of these events, additional information can be found: lecturer/instructor for lectures/hands-on trainings, Zoom (or Gather Town) link, summary, ... (see next page).

Always use this “MY SCHEDULE” tool to find the Zoom link of a lecture, practical, ...

► EVALUATION

The participants will have to fill in day-by-day the evaluation for each lecture, practical, ... The date and time and 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 SCHEDULE

< > today FEB 28 – MAR 6, 2022 list	
Monday February 28, 2022	
09:30 am	● Welcome
10:50 am	● Introduction to the science at large scale facilities: neutron, synchrotron and XFEL

WELCOME

Marc DE BOISSIEU

DATE

MON 28/02/2022 , 09:30 -> 10:30

[Zoom \(or Gather Town\) link](#)<https://grenoble-inp.zoom.us/j/91303030138>

After each lecture, you may click on the title of the next one, then move the mouse over the “Zoom (or Gather Town) link” link to **check whether the Zoom link is the same or not**.

In the first case, simply stay in the meeting, waiting for the start of the next lecture.

In the second case, click on the link to start the new meeting (and thus close the previous one).

MY TOOLS

[MY ACCOUNT](#)[PORTRAIT GALLERY](#)Contact the school: hercules@hercules-school.euReport any problem to webmaster@hercules-school.eu

► MY ACCOUNT

A few additional information is given here, in particular, the session and group of the participant, as well as the reference (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 page as when clicking on the icon

► PORTRAIT GALLERY

The photographs of all participants are displayed in this page. The participants can use the search tool to find a given participant or to filter on the A or B session, part-time or full-time participants, SOLEIL 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.

GENERAL INFORMATION ABOUT CONNECTIONS / LINKS

SOFTWARES, EVALUATION OF THE COURSE, RECORDING AND PDF PRESENTATIONS OF THE LECTURES, FOR WEEKS 1, 2, 3, AND 5.

► **ZOOM and GATHER TOWN will be used during the session.**

Please, **register on these platforms with your Name SURNAME**, so that we can recognize you when you will be logged.

► **ZOOM** will be used for all lectures, presentations, practicals/labs/tutorials, questions on lectures, and visits. Please follow the following instructions:

- Keep your microphone OFF during the lectures and open it only when you have a question.
- In order to keep interactivity with the lecturer, please let your camera ON during the lectures (except, of course, if you have internet flow problem). This is even more important for the practicals/labs/tutorials where you are in small groups.
- Most of the lectures will be recorded so please answer "Continue the meeting" when Zoom will notify the recording to you.
- At the end of each lecture, breakout rooms will be created. Assuming you have an up to date Zoom version, you will be able to join the room that you wish, using the "Breakout Rooms" button. You may go to the first room, if you wish to ask questions to the lecturer.

PLEASE, INSTALL THE 5.9.3 VERSION OF ZOOM OR MORE RECENT.

► **GATHER TOWN** allows to create virtual spaces to bring people together and connect authentically. Gather Town combines video calling with fun features in a custom 2-D world, making it more spontaneous and enjoyable to get together for work or discussion.

Our Gather Town space will be open during all the session, permitting you to interact also during the lunch breaks or after lectures.

You are strongly recommended to use Firefox, Google Chrome, or Chromium, but not Safari, as the latter web browser sometimes does not work well with Gather Town.

To join the Gather Town HERCULES space, follow this link:

<https://gather.town/xxxxxxxxxx>

The "Welcome cocktail", poster session, and Wine & Cheese party will be held on Gather Town.

You are also advised to meet on Gather Town for lunch breaks, at the end of the day, ...

► During the session, you are asked to fill in an **EVALUATION FORM** for each lecture and for each practical / lab/ tutorial, on the Hercules web site (<https://hercules-school.eu/>), so please **connect regularly on your dashboard to do it** (see page 10).

► **THE RECORDED VIDEOS AND PDF PRESENTATIONS** of the lectures will be available in the "LECTURES week1...", 2, 3, and 5 folders on the **HERCULES cloud** at the following link:

<https://nextcloud.grenoble.cnrs.fr/xxxxxxxxxx>

PLEASE, RESPECT THE CONFIDENTIALITY OF THESE DOCUMENTS, KEEP THEM ONLY FOR YOUR PERSONAL USE.

ZOOM IDS, LINKS, AND PASSWORD, FOR THE LECTURES AND PRACTICALS / LABS / TUTORIALS ORGANISED BY THE GRENOBLE COMMITTEE (WEEKS 1, 2, 3, AND 5).

LECTURES OF GRENOBLE PROGRAMME

All of them will have the same **PASSWORD: XXXXXXXX**

Most of the lecturers will be using the Zoom meetings created by the organising committee:

- **Common and Session A lectures** (lecturers names in **brown** and **blue**, respectively, in schedules pages 19 – 22 and 31 – 34):

<https://grenoble-inp.zoom.us/xxxxxxxxxx>

The **Welcome** (on the first day), **ILL & ESRF visits**, and **evaluation meeting** (on the last day) will also take place on this meeting.

- **Session B lectures** (lecturers names in **green** in schedule pages 32 – 34):

<https://univ-grenoble-alpes-fr.zoom.us/xxxxxxxxxx>

Careful! Not all the lecturers will use these links so always refer to “MY SCHEDULE” on the Hercules website.

PRACTICALS / LABS / TUTORIALS OF GRENOBLE PROGRAMME

During weeks 2, 3 and 5, a single Zoom meeting will be used for all practicals, labs and tutorials of each session (A and B), still with the **PASSWORD: XXXXXXXX**

You will then be dispatched in different virtual rooms, corresponding to each practical / lab / tutorial, with your instructor. **Please, log in 10 minutes before the start (8:50 or 13:50) and add the acronym of the practical / lab / tutorial** (as written in the separate individual schedule of practicals / labs / tutorials) **you are to follow before your Name SURNAME in your Zoom ID**, i.e. "ACRONYM Name SURNAME" (example: "FLUO James SMITH"):

- **Practicals / Labs / Tutorials for the A session** (in **yellow** on schedule pages 20 – 22):

<https://ill.zoom.us/xxxxxxxxxx>

- **Practicals / Labs / Tutorials for the B session** (in **yellow** on schedule pages 32 – 34):

<https://esrf.zoom.us/xxxxxxxxxx>

PRACTICAL INFORMATION ABOUT THE PARTNER SITES (WEEK 4)

CONTACTS AND ZOOM LINKS (for online) / LOCATION (for on site)

ON LINE PARTNERS

► SLS / SINQ *online*



■ PSI contacts

<https://www.psi.ch>

Patrick Hemberger	► patrick.hemberger_at_psi.ch
Victor Porée	► victor.poree_at_psi.ch
Zeyou Pan	► zeyou.pan_at_psi.ch
Frithjof Nolting	► frithjof.nolting_at_psi.ch
Martina Füglister	► martina.fueglister_at_psi.ch

WEBSITE FOR THE WHOLE WEEK

All the necessary information (zoom links, scripts for practicals and tutorials, schedule, etc.) will be posted at the following link:

<https://indico.psi.ch/e/Hercules2022>

Password: **XXXXXXXX**

► KIT *online*



■ KITcontacts

<https://www.kit.edu>

Michael Hagelstein	► michael.hagelstein_at_kit.edu
Anton Plech	► anton.plech_at_kit.edu
Tilo Baumbach	► tilo.baumbach_at_kit.edu
Leyla Jochim	► leyla.jochim_at_kit.edu

The detailed schedule, with summaries of the practicals, will be accessible on the Hercules website (in MY SCHEDULE, once connected) before the start of the school, but no update will be done there during week 4.

All last minute information / update will be specified by the local organisers.

ZOOM LINK FOR THE WHOLE WEEK

<https://kit-lecture.zoom.us/xxxxxxxxxx>

Meeting ID: XXX XXXX XXXX

Password = **XXXXXXXX**

► SOLEIL Synchrotron *on site*



■ SOLEIL contacts

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

Alessandro Coati	▶ alessandro.coati_at_synchrotron-soleil.fr
Lucie Nataf	▶ lucie.nataf_at_synchrotron-soleil.fr
France Rouet	▶ france.rouet_at_synchrotron-soleil.fr
Hazel Briant	▶ hazel.briant_at_synchrotron-soleil.fr
Frédérique Fraissard	▶ frederique.fraissard_at_synchrotron-soleil.fr

You will be hosted at:

Séjour & Affaires Massy Atlantis, 6 rue Christophe Colomb, 91300 Massy, France,
and the school will take place at:

Synchrotron SOLEIL, L'Orme des Merisiers, 91190 Saint-Aubin, France.

The local organisers will send you a document containing all practical information (access map, bus and RER lines, restaurants, ...) **before your travel to SOLEIL.**

► DESY / European XFEL *on site*



■ DESY contact

<https://www.desy.de>

Oliver Seeck	▶ oliver.seeck_at_desy.de
--------------	---------------------------

■ EuXFEL contacts

<https://www.xfel.eu>

Kirsten Geist	▶ kirsten.geist_at_xfel.eu
Sakura Pascarelli	▶ sakura.pascarelli_at_xfel.eu
Thomas Tschentscher	▶ thomas.tschentscher_at_xfel.eu

You will be hosted at the DESY guesthouse (DESY hostel) and the school will take place at:

- **European XFEL GmbH**, Holzkoppel 4, 22869 Schenefeld, Germany, and
- **DESY Synchrotron**, Notkestraße 85, 22607 Hamburg, Germany.

The detailed schedule will be accessible on the Hercules website (in MY SCHEDULE, once connected) before the start of the school, but no update will be done there during week 4.

All last minute information / update will be specified by the local organisers.

The local organisers will send you a document containing all practical information (access map, bus lines, meeting points and rooms, ...) **before your travel to DESY / European XFEL.**

LIST OF FULL-TIME PARTICIPANTS:

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

SESSION A

SURNAME	Name	Site	Group	Subgroup	#
ANCHIETA	Chayene	SOLEIL	A2		a01
ASIMAKOPOULOU	Eleni Myrto	KIT	A		a02
ATLAN	Clément	KIT	A		a03
BOUDJEHEM	Mohamed Redhouane	PSI	A3	W3	a06
BRANTL	Johannes	KIT	A		a07
CHRISTENSEN	Rasmus	SOLEIL	A2		a08
COLALONGO	Mattia	PSI	A1	W1	a09
COZZOLINO	Serena	SOLEIL	A3		a10
DERJ	Anyssa	DESY / EuXFEL	A1		a12
DOLADO FERNANDEZ	Jaime	SOLEIL	A2		a13
DORRI	Samira	KIT	A		a14
ENGLER	Thea	PSI	A1	W3	a15
FITZPATRICK	Maureen	KIT	A		a16
GEERS	Madeleine	PSI	A4	W2	a17
HADDEN	Elhoucine	PSI	A2	W3	a18
HAMID	Mouna	DESY / EuXFEL	A2		a19
HOANG	Le Phuong	PSI	A4	W2	a20
HOLUB	Tamara	SOLEIL	A3		a21
HUMA	Kinza	KIT	A		a22
IGOA SALDAÑA	Fernando	DESY / EuXFEL	A2		a23
IRISH	Austin				a24
JOUSSEAUME	Thibaut	SOLEIL	A1		a25
KRÁL	Petr	PSI	A1	W2	a26
KUZNETSOVA	Anastasiia	PSI	A1	W1	a27
LACMANN	Tom	PSI	A4	W2	a28
LOPES	João	PSI	A2	W1	a29
LØRUP	Erik	DESY / EuXFEL	A3		a30
MOMBRINI	Isabella	PSI	A3	W1	a31
MOSZCZYŃKSA	Ida	DESY / EuXFEL	A1		a32
RAJH	AVA	SOLEIL	A3		a34
REICH	Veronika	DESY / EuXFEL	A3		a35
RODRIGUEZ	Irene	SOLEIL	A2		a36
SANNA ANGOTZI	Marco	PSI	A2	W1	a37
SAVATOVIC	Sara	DESY / EuXFEL	A4		a38

SURNAME	Name	Site	Group	Subgroup	#
SCHWAIGHOFER	Bettina	SOLEIL	A1		a39
SERBAN	David-Alexandru	KIT	A		a40
SHARMA	Shweta	PSI	A3	W3	a41
SIMONNE	David	PSI	A2	W3	a42
SOLEMSLI	Bjørn Gading	PSI	A3	W1	a43
STRUCKA	Jergus	DESY / EuXFEL	A4		a44
SU	Po-Hua	DESY / EuXFEL	A4		a45
VOSEGAARD	Emilie Skytte	DESY / EuXFEL	A3		a46
VOSTROV	Nikita	SOLEIL	A1		a47
WARTELLE	Alexis	DESY / EuXFEL	A2		a48
WENG	Xiaorong	DESY / EuXFEL	A1		a49
XIE	Wu	SOLEIL	A3		a50
YEHYA	Sarah	DESY / EuXFEL	A1		a51
ZIMMERMANN	Valentin	PSI	A4	W2	a52

Following late cancellations (#a04, a05, a11, a33), Session A is constituted of 48 full-time participants.

SESSION B

SURNAME	Name	Site	Group	#
ANINDYA	Atsarina Larasati	DESY / EuXFEL	B	b01
BARCLAY	Abigail	SOLEIL	B1	b02
BARLETTI	Beatrice	SOLEIL	B1	b03
BUVALAIA	Ekaterina	KIT	B	b04
DIEZ	Matthias Raimund	KIT	B	b05
DOMINICI	Clarissa	PSI	B	b06
IVANOVIC	Aleksandra	SOLEIL	B1	b07
KABBINALE	Arpitha	DESY / EuXFEL	B	b08
LÓPEZ HERNÁNDEZ	Marcos	SOLEIL	B2	b09
LUND	Xamuel	DESY / EuXFEL	B	b10
MELICHER	Filip	SOLEIL	B2	b11
MEŠKOVÁ	Klaudia	PSI	B	b12
MIKHAILOVSKAIA	Alesia	PSI	B	b13
MOROTTI	Ilaria	SOLEIL	B1	b14
NG	Yi Min	SOLEIL	B2	b15
NIDRICHE	Agathe	PSI	B	b16
OLSSON	Martina	KIT	B	b17
PETER	Karolina	KIT	B	b18
SAKR	Charbel	SOLEIL	B2	b19
SKOBELKINA	Anastasiia	DESY / EuXFEL	B	b20

LIST OF PART-TIME PARTICIPANTS

SESSION A

SURNAME	Name
ADANAKOVA	Olga
AKBAR	Fahrurrozi
BALUGANI	Sofia
BERTELSEN	Andreas
BHATT	Harsh
BONNET	Clément
CZAMLER	Valentin
DEWI	Sari Hasnah
FAZLIC	Ida
FRACHET	Mehdi
FRANSSON	Matilda
GIRON LANGE	Esther
GRABIAS	Ewelina
HANSEN	Steen Hansgaard
HARRUP	Anthony Albert
HUA	Weicheng
IRRAZABAL MOREDA	Olvido
KATO	Tatsuya
KICIOR	Inga
Kiranjot	Kiranjot
KULOW	Anico

SURNAME	Name
LERCHE	Julie Toftelund
LIAO	Chenyang
LYU	Jieli
MALATO PRAXEDES	Fernanda
MIROLO	Marta
MORENO BAYONA	Diana Alejandra
NAWAZ	Noor
OEMRY	Ferensa
PARMAR	Rohan
PHILIPPE	Jonas
POELCHEN	Georg
RAHIDE	Fatemehsadat
RONOVSKY	Michal
SCHMEISSNER	Johann
SEBOLD	Simon
TRAUSA	Annamarija
VINCI	Valentin
VINOGRAD	Igor
VOLODINA	Natalia
YAKOVLEV	Ilya
ZHENG	Chenwei

SESSION B

SURNAME	Name
GUPTA	Jyoti
NGUYEN	Tu Quynh
PATRIATI	Arum
PLATUNOV	Mikhail

PROGRAMME ONLINE of GRENoble

SCHEDULE FOR SESSION A

Last update 14/02/2022

	Common lectures
	Session A lectures
	Other

Week 1: 28th to 4th March

	Monday 28	Tuesday 1	Wednesday 2	Thursday 3	Friday 4
8:40 – 9:25 10' break 9:35 – 10:20		Introduction to interactions of X-rays and neutrons with matter (2/2) <i>Andrew Harrison</i>	Neutrons: scattering and instrumentation (2/2) <i>Andrew Wildes</i>	Hard X-ray optics for SR beamlines <i>Ray Barrett</i>	From a diffraction experiment to the crystal structure <i>Marc de Boissieu</i>
	09:30 – 10:30 Welcome <i>Marc de Boissieu and Béatrice Grenier</i>				Training on Crystallography (1/2) <i>Claire Colin & Béatrice Grenier</i>
10:50 – 11:35 10' break 11:45 – 12:30	Introduction to the science at large scale facilities: neutron, synchrotron and XFEL sources <i>Marc de Boissieu</i>	Neutrons: scattering and instrumentation (1/2) <i>Andrew Wildes</i>	Crystallography (1/2) <i>Béatrice Grenier</i>	Crystallography (2/2) <i>Béatrice Grenier</i>	Introduction to X-ray Spectroscopies <i>Sakura Pascarelli</i>
14:00 – 14:45 10' break 14:55 – 15:40	Introduction to interactions of X-rays and neutrons with matter (1/2) <i>Andrew Harrison</i>	ESRF & ILL presentations (45' each) <i>F. Sette & P. Langan</i> + UGA presentation (15') <i>H. Courtois</i>	ESRF visit <i>Yannick Lacaze and ESRF staff</i>	ILL visit <i>Andrew Wildes</i>	Fundamentals of X-ray Absorption Fine Structure Spectroscopy <i>Sakura Pascarelli</i>
16:10 – 16:55 10' break 17:05 – 17:50	Introduction to Synchrotron Radiation, Coherence, and the Evolution to Free Electron Lasing <i>David Attwood</i>	X-ray Optics and Applications <i>David Attwood</i>	Basics of X-ray Detectors; How do they work and how are they characterised? <i>Heinz Graafsma</i>	Small angle scattering <i>Martin Müller</i>	Questions on lectures (with lecturers of the week, A and B together)
	18:00 Welcome cocktail on Gather town				

SCHEDULE FOR SESSION A

Week 2: 7th to 11th March

	Monday 7	Tuesday 8	Wednesday 9	Thursday 10	Friday 11
8:40 – 9:25 10' break 9:35 – 10:20	Introduction to neutron and X-ray inelastic scattering <i>Christiane Alba-Simionesco</i>	9:00 – 12:30 ESRF PRACTICALS (in small groups)	9:00 – 12:30 ESRF PRACTICALS / TUTORIALS (in small groups)	Data science: from big & open data to cloud computing <i>Vincent Favre-Nicolin</i>	Introduction to magnetism <i>Luigi Paolasini</i>
10:50 – 11:35 10' break 11:45 – 12:30	Introduction to imaging techniques <i>Federica Marone</i>			Training on Crystallography (2/2) <i>Claire Colin & Béatrice Grenier</i>	High resolution inelastic X-ray scattering <i>Matthieu Le Tacon</i>
14:00 – 14:45 10' break 14:55 – 15:40	X-ray photon correlation spectroscopy <i>Gerhard Grübel</i>	14:00 – 17:30 ESRF PRACTICALS (in small groups)	14:00 – 17:30 ESRF PRACTICALS / LABS / TUTORIALS (in small groups)	Full-field coherent Imaging <i>Peter Cloetens</i>	14:00 – 14:30 DECTRIS <i>Dubravka Sisak Jung</i>
16:10 – 16:55 10' break 17:05 – 17:50	Powder diffraction <i>Radovan Cerny</i>			Serial (femtosecond) crystallography <i>Thomas Barends</i>	14:30 – 18:00 POSTER SESSION on Gather Town
18:00 – 19:00				Questions on lectures (with lecturers of the week, A and B together)	

SCHEDULE FOR SESSION A

Week 3: 14th to 18th March

	Monday 14	Tuesday 15	Wednesday 16	Thursday 17	Friday 18
8:40 – 9:25 10' break 9:35 – 10:20	FELs & ultrafast applications <i>Sakura Pascarelli</i>	Magnetic neutron diffraction <i>Navid Qureshi</i>	Neutron and X-ray reflectometry <i>Oliver Seeck</i>	Resonant diffraction <i>Vincent Favre-Nicolin</i>	Dynamical theory of diffraction <i>Tilo Baumbach</i>
10:50 – 11:35 10' break 11:45 – 12:30	Science at neutron spallation sources: exploiting accelerator based facilities <i>Sean Langridge</i>	Polarised Neutrons: Theoretical and Experimental Techniques for the Study of Atomic, Molecular and Nanoscale Systems <i>Sean Langridge</i>	Neutron triple axis spectroscopy <i>Bella Lake</i>	Neutron time of flight spectroscopy <i>Toby Perring</i>	Neutron backscattering and spin-echo spectroscopies <i>Orsolya Czakkel</i>
14:00 – 14:45 10' break 14:55 – 15:40	Polarized X-rays <i>Urs Staub</i>	TUTORIALS (in small groups)	Disorder and its effects on neutron and X-ray diffraction <i>Marc de Boissieu</i>	“How to write a good proposal” <i>Alex Fernandez-Martinez, Joanne Mc Carthy,</i> <i>and members of the organising committee</i>	Soft condensed matter <i>Adrian Rennie</i>
16:10 – 16:55 10' break 17:05 – 17:50	Liquid and amorphous materials <i>Adrian Barnes</i>		16:10 – 17:10 Ancient materials research with synchrotron and neutron techniques <i>Sebastian Schoeder</i> 17:20 Fostering Science <i>Thibaut David</i> 17:35 NFFA-EUROPE-PILOT <i>Anthony Leonard</i>		Questions on lectures (with lecturers of the week, A and B separated)

SCHEDULE FOR SESSION A

Week 4: 21st to 25th March: 'Outside' GrenobleWeek 5: 28th March – 1st April

	Monday 28	Tuesday 29	Wednesday 30	Thursday 31	Friday 1
8:40 – 9:25 10' break 9:35 – 10:20	9:00 – 12:30 ILL TUTORIALS with demonstrations (in small groups)	Magnetic X-ray and neutron reflectivity <i>Björgvin Hjörvarsson</i>	Coherent diffractive imaging and ptychography <i>Manuel Guizar-Sicairos</i>	Photoelectron spectroscopy from UV to soft X-rays <i>Hugo Dil</i>	8:40 – 9:40 Materials for energy <i>Sandrine Lyonnard</i>
10:50 – 11:35 10' break 11:45 – 12:30		Single-crystal X-ray diffraction applied to electron density analysis <i>Enrique Espinosa</i>	X-ray photoemission electron microscopy <i>Claus M. Schneider</i>	Coherent and transient states studied with X-rays FELS <i>Carlo Callegari</i>	10:10 – 11:10 THz spectroscopy applied to multiferroic materials <i>Sophie de Brion</i>
14:00 – 14:45 10' break 14:55 – 15:40	14:00 – 17:30 ILL TUTORIALS with demonstrations (in small groups)	X-ray absorption spectroscopy: theoretical basis <i>Amélie Juhin</i>	TUTORIALS (in small groups)	TUTORIALS (in small groups)	Nanostructures in the light of synchrotron radiation <i>Gilles Renaud</i>
16:10 – 16:55 10' break 17:05 – 17:50		Solving surface problems using SR techniques <i>Gilles Renaud</i>			16:10 – 17:10 Hercules Mythology <i>Chris Buckley</i>
					17:20 – 18:30 EVALUATION MEETING
18:30 – 20:30					Farewell wine and cheese on Gather Town

PRACTICALS / LABS / TUTORIALS FOR SESSION A

Coordinators: Alejandro FERNANDEZ-MARTINEZ, Béatrice GRENIER,
Lucile MANGIN-THRO, Fabrice WILHELM

Contact: Béatrice GRENIER (grenier_at_ill.fr)

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

During the weeks 2, 3, and 5, organised by Grenoble, all full-time participants will carry out two remote tutorials/demo at Institut Laue Langevin (ILL) and three remote practicals at European Synchrotron Radiation Facility (ESRF), delivered mostly by instrument responsables and beamline scientists. In addition, they will participate in remote tutorials (mostly data treatment) and in an X-ray lab (for a few people), taught by staff / users of large scale facilities essentially (three tutorials / labs in total).

All full-time participants will follow additional practicals / tutorials during week 4, fully organised by our partners. Four different groups have been constituted, each following the programme organised by one of the following partner facilities:

- the German synchrotron radiation facility Deutsches Elektronen-Synchrotron (**DESY**) and the **European XFEL** in Hamburg, hopefully ON SITE,
- the Karlsruhe Institute of Technology (**KIT**) Light Source in Karlsruhe, ONLINE,
- the Swiss synchrotron radiation facility Swiss Light Source (**SLS**) and the Swiss spallation neutron source **SINQ** at the Paul Scherrer Institute (PSI) in Villigen, ONLINE,
- the French synchrotron **SOLEIL** Saint-Aubin, close to Paris, hopefully ON SITE.

Among these groups (except for KIT where the 8 participants form a single group), the participants have been distributed in groups of 4 at the various partner facilities (A1, A2, ... at each site). 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, for a better readability in the tables that will follow (a01 to a72). All the information regarding groups A1, A2, ... and the numbering a01, a02, ... can be found in the PRACTICAL INFORMATION section of this booklet.

The complete practicals / labs / tutorials schedule was done in the best possible way (regarding the many constraints) with respect to their main research interests and wishes expressed. Each full-time participant will perform selected practicals, labs, and tutorials, as indicated in the following.

The list of all practicals / labs / tutorials (titles and instructors) is given in the following pages, together with the groups A1, A2, ..., and participants a01, a02, ... assignment (refer to pages 16 – 18), and the complete individual schedule for all participants can be found on a separate 2 pages PDF document.

The summaries of the practicals / labs / tutorials are available in MY SCHEDULE on the Hercules website: <https://hercules-school.eu/my-dashboard> (once connected).

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

* **Practical:** hands-on training on large scale facility instruments ; **Lab:** hands-on training on laboratory experiments ;
Tutorial: data treatment (on data recorded beforehand).

► Remote tutorials/demo at ILL, Grenoble

28th MARCH, 9:00 – 12:30 and 14:00 – 17:30



INSTRUMENT	INSTRUCTOR(S)	TITLE	28 th March	
			9:00	14:00
D1B	PUENTE ORENCH Inés	Microstructure of nanoparticles	a01 a08 a13 a23 a47	
D4	FISCHER Henry	PDF-analysis for the structure of disordered materials	a17 a27 a31 a37	a01 a06 a08 a09 a10 a30 a46 a47
D17	SAERBECK Thomas	Exploring thin-film structure and magnetism with neutron reflectometry	a20 a21 a26 a48 a49 a52	a14 a18 a37 a39 a40
D20	HANSEN Thomas	Fast neutron Powder diffraction	a06 a25 a35 a40 a46	a02 a07 a22 a32 a38 a44 a45
D22	CUBITT Robert	Data Reduction and Analysis of an Experiment with Superconducting Niobium - a Model SANS system	a07 a18 a14 a28 a38 a45 a50	a15 a17 a27 a34 a36
D23	BEAUVOIS Ketty	Single crystal two-axis neutron diffraction: field-induced magnetic structure in Cs ₃ Cr ₂ Br ₉		a21 a26 a48 a49
IN8	PIOVANO Andrea	Phonon dispersion in beta-tin	a10 a24 a41 a42 a44	
Sharp / IN5 (1)	BERROD Quentin, PETIT Sylvain	Quasi-Elastic Neutron Scattering in materials for energy	a09 a12 a22 a32 a34 a39	
Sharp / IN5 (2)	PETIT Sylvain	Spin dynamics in Mn ₁₂ acetate		a20 a28 a35 a50 a52
S-ADAM / FIGARO	GUTFREUND Philipp	Investigation of thin films by means of neutron reflectometry	a02 a03 a16 a29 a51	a12 a19 a23 a24 a42 a43
SALSA	PIRLING Thilo	Neutron diffraction based stress characterization for engineering applications	a15 a19 a30 a36 a43	a03 a13 a16 a25 a29 a31 a41 a51

Due to the online format of the school, the reactor shutdown, and the ongoing works for upgrades at ILL, not all the instructors will be able to make a demonstration or a virtual visit of the instrument, hence these teachings will unfortunately be more tutorials like than practicals.

You can find information on the various neutron instruments listed above at the following URL:
<https://www.ill.eu/users/instruments/instruments-list>

► Remote practicals at ESRF, Grenoble

8th and 9th MARCH, 9:00 – 12:30 and 14:00 – 17:30



BEAMLINE	INSTRUCTOR(S)	TITLE	8 th March		9 th March	
			9:00	14:00	9:00	14:00
BM02 align	BEUTIER Guillaume, BLANC Nils, CHAHINE Gilbert	Alignment of a beamline for a single crystal diffraction experiment	a02 a14 a18			
BM02	BEUTIER Guillaume, BLANC Nils, CHAHINE Gilbert	Forbidden reflections in a Germanium single crystal		a02 a03 a23 a25 a46	a07 a14 a20 a49 a50	a15 a32 a34 a37 a47
BM08	D'ACAPITO Francesco, BARONI Tommaso	Practical introduction to the EXAFS technique	a08 a37 a41 a44 a49	a07 a15 a29 a34	a09 a21 a40 a45	a16 a23 a30 a42
BM23	ATZORI Cesare, LOMACHENKO Kirill	X-ray absorption spectroscopy	a03 a24 a35 a51	a10 a13 a32 a48	a01 a06 a26 a46	a17 a18 a19 a22 a25 a27 a28
ID01 (1)	BELLECE Ewen, LEAKE Steven	Wavefront reconstruction and Bragg coherent diffraction imaging	a01 a07 a13 a38 a40 a52	a06 a16 a33		
ID01 (2)	LEAKE Steven, ZATTERIN Edoardo	Scanning X-ray Diffraction Microscopy			a41 a48 a51	a10 a12 a13 a24 a29 a38
ID09	LEVANTINO Matteo, MARIETTE Céline, VOLTE Alix	Time-resolved X-ray scattering			a02 a03 a08 a31 a52	
ID11	AUTRAN Pierre-Olivier, GIACOBBE Carlotta, LAWRENCE-BRIGHT Eleanor, LUDWIG Wolfgang, WRIGHT Jonathan	Diffraction tomography based techniques	a06 a09 a36 a48	a14 a28 a35 a40 a44		
ID12	WILHELM Fabrice	Hard X-ray XMCD	a17 a20 a26 a28	a21 a37 a49 a50		
ID15B	HANFLAND Michael	Crystallography in a diamond anvil cell	a22 a29 a39 a46	a12 a20 a24 a52		
ID19	BROCHE Ludovic, MAJKUT Marta, RACK Alexander	Synchrotron-based microtomography	a10 a19 a30 a31 a47	a38 a39 a41 a42		
ID21	COLOCHO HURTARTE Luis, VERONESI Giulia	Multi-modal micro-analyses for cultural heritage		a01 a18 a19 a36 a45		
ID22	CONFALONIERI Giorgia, GRENDAL Ola	High resolution powder diffraction	a21 a27 a43 a45	a08 a22 a47 a51		
ID27	MEZOUAR Mohamed, PAKHOMOVA Anna, POREBA Tomasz, WEHINGER Bjorn	Structure of materials under high pressure	a15 a16 a32 a34 a50	a09 a17 a26 a27 a30 a31 a43		
ID28	BOSAK Alexei, CHANEY Daniel	Diffuse scattering in minerals	a12 a23 a25 a42			a35 a39 a43 a44

Due to the online format, a few practicals will be more tutorials like (i.e., without live data acquisition).

► Remote tutorials and X-ray Lab

9th, 15th, 30th, and 31st MARCH, 9:00 – 12:30 and/or 14:00 – 17:30



TUTORIAL	INSTRUCTOR(S)	TITLE	9 th March		15 th March	30 th March	31 st March
			9:00	14:00	14:00	14:00	14:00
Aperiodic	PEREZ Olivier	Beyond classical crystal order					a13 a20 a30 a32 a51
Bilbao	DE BRION Sophie	Introduction to Bilbao Crystallographic server				a20 a26 a28 a50 a52	
CDI-Ptycho	FAVRE-NICOLIN Vincent	Coherent X-ray Imaging analysis with PyNX (CDI, Ptychography,...)			a02 a06 a16 a40		
Data Reduc	KIEFFER Jerome	Data reduction with pyFAI				a06 a15 a25 a36 a38 a45	
GSAS-II	TOBY Brian	An introduction to GSAS-II				a08 a09 a14 a27 a46	a25 a31 a42 a43
JANA	HENRIQUES Margarida, PETRICEK Vaclav, POUPON Morgane	Crystallographic structure refinement using Jana2020				a03 a18 a40	
JANA mag	HENRIQUES Margarida, PETRICEK Vaclav, POUPON Morgane	Magnetic crystallography and solution of magnetic structures in Jana2020					a17 a28 a46 a48 a50 a52
MAGDIF	PADDISON Joseph	Magnetic diffuse scattering			a17 a21 a48 a50 a52		
McStas	WEBER Tobias	Neutron scattering simulations with McStas					a02 a14 a18 a21 a35
microLAUE	MICHA Jean-Sébastien, PURUSHOTTAM Ravi Raj Purohit	X-Ray Laue Microdiffraction			a08 a32 a34 a37	a07 a16 a29 a39	a03 a22 a27 a40 a45
OASYS	REYES-HERRERA Juan, SANCHEZ DEL RIO Manuel	Modelling synchrotron radiation beamlines with Oasys			a15 a22 a35 a42 a49		

TUTORIAL	INSTRUCTOR(S)	TITLE	9 th March		15 th March	30 th March	31 st March
			9:00	14:00	14:00	14:00	14:00
Ptycho	DA SILVA Julio Cesar	PXCT data analysis: phase retrieval and tomographic reconstruction			a01 a03 a43		a10 a15 a36 a41 a47
Reflecto	RIEUTORD François, TARDIF Samuel	Introduction to reflectometry to investigate flat surfaces and interfaces			a10 a12 a14 a18		
RIXS	NICOLAOU Alessandro	Resonant inelastic X-ray scattering in the soft X-ray regime for strongly correlated electron systems	a12 a13 a17 a22 a28 a34		a23 a24 a29 a39 a44		
SPINWAVE	PETIT Sylvain	1) Spin waves, 2) Spin and lattice dynamics in AgCrS ₂		a20 a21 a26 a48			
TAS	BOUNOUA Dalila	Triple axis spectrometer measurements of the phonons dispersion in CaF ₂		a01 a08 a46 a49			a12 a23 a29 a37
TOMO	FREDERIC OTT	Data processing in neutron radiography		a02 a06 a07 a51	a19 a25 a30 a31 a36 a38		
TOPO	BARUCHEL José, TRAN CALISTE Thu Nhi	Bragg Diffraction Imaging to study defects in crystals			a07 a09 a13 a41 a51		
XAS 1	JOLY Yves	Simulation of X-ray absorption spectroscopies				a23 a43 a44 a47 a49	
XAS 2	RETEGAN Marius	X-ray spectroscopy calculations using multiplet approaches				a01 a37 a42	a24 a26 a34 a39
XPCS	CHUSHKIN Yuriy	XPCS data analysis and practice	a10 a16 a19 a24 a30 a32 a35 a38 a44				
XRF	SEGURA-RUIZ Jaime	Nano-characterization using a hard X-rays nanoprobe: ID16B beamline at the ESRF and its multi-modal detection setup			a27 a45 a47		

LAB	INSTRUCTOR(S)	TITLE	9 th March		15 th March	30 th March	31 st March
			9:00	14:00	14:00	14:00	14:00
XPD lab	LEYNAUD Olivier	Powder X-Ray Diffraction		a09 a31 a41			

For some of the tutorials, you will need to install **specific softwares** beforehand, to be able to do the data treatment. **Please refer to the next page.**

NB: Mouna Hamid (#a19) and Irene Rodriguez Fernandez (#a36) have been assigned a practical/tutorial from the B session (see pages 37-38).

Software installation instructions and operating system (OS) needed for the various tutorials:

TUTORIAL	Software installation instructions	OS
Aperiodic	Jana and Crysalis pro	Windows
Bilbao	Link for the Bilbao crystallographic server: https://www.cryst.ehu.es	Windows
CDI-Ptycho	No software to install beforehand	any OS
Data Reduc	Instruction on how to install pyFAI will be provided shortly before the tutorial	any OS
GSAS-II	See http://bit.ly/GSASII for installation instructions.	any OS
JANA	Jana2020, latest version: https://jana-login.fzu.cz/home	Windows
JANA mag	Jana2020, latest version: https://jana-login.fzu.cz/home	Windows
MAGDIF	Spinvert: www.joepaddison.com/software Veusz: https://veusz.github.io (for data plotting)	any OS
McStas	A Linux distribution, for example Ubuntu (under Windows and MacOS this can be installed in a virtual machine like VirtualBox, https://www.virtualbox.org); McStas version 3: http://mcstas.org	any OS
microLAUE	LaueTools and LaueToolsNN softwares	Windows or Linux
OASYS	Oasys: https://github.com/oasys-kit/oasys-installation-scripts/wiki#install-oasys-in-your-system	any OS
Ptycho	Python and Jupyter notebook, but all the instructions will be sent beforehand	any OS
Reflecto	GenX 3, available at https://aglavic.github.io/genx/	any OS
RIXS	ImageReducer for extracting the RIXS spectra (the link will be sent beforehand); Crispy for multiplet calculations (https://www.esrf.fr/computing/scientific/crispy/)	any OS
SPINWAVE	An e-mail with the installations instructions will be sent beforehand	any OS
TAS	Any software to draw curves and do fitting (Matlab, Python, or Igor Pro)	any OS
TOMO	ImageJ	Windows
TOPO	?	
XAS 1	FDMNES. A specific package will be provided latter. You must have your own software, such as Origin, Kaleidagraph,....., to plot spectra.	any OS
XAS 2	Crispy (http://www.esrf.eu/computing/scientific/crispy)	any OS
XPCS	no software needed	
XRF	PyMca	any OS
XPD lab	no software needed	

Some of the instructors will send you an e-mail before the tutorial to give you (further) instructions about the software installation.

If some of you do not have the required OS system, you may request the remote control to another participant from time to time, so that you are also able to work during the tutorial.

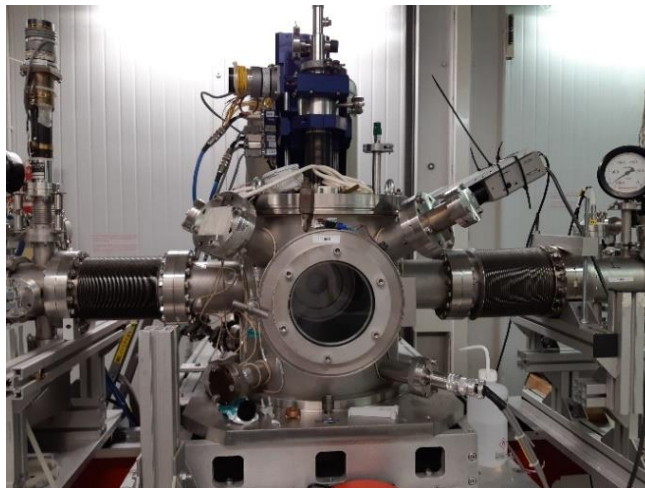
Do not hesitate to contact your instructor beforehand if you have any question about the operating system and/or the software installation. You can find their e-mail addresses at the end of the booklet.



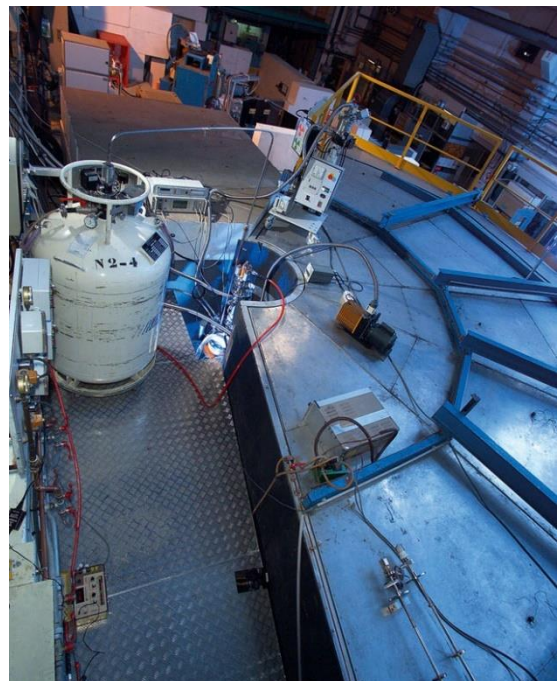
Small Angle Neutron Scattering, D11 @ ILL



Small angle X-ray scattering, BM29 @ ESRF



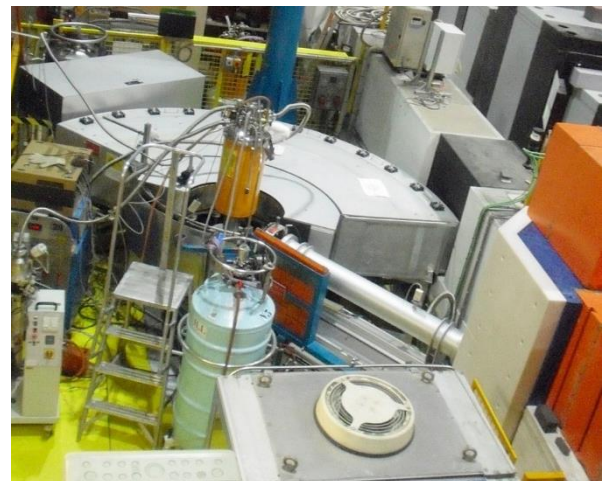
Extended X-ray Absorption Fine Structure, BM08 @ ESRF



Time Of Flight neutron spectrometry, IN5 @ ILL



EBS storage ring @ ESRF



Powder Neutron Diffraction, D1B @ ILL



PROGRAMME ONLINE of GRENoble

SCHEDULE FOR SESSION B

	Common lectures
	Session B lectures
	Other

Last update 10/02/2022

Week 1: 28th February to 4th March

	Monday 28	Tuesday 1	Wednesday 2	Thursday 3	Friday 4
8:40 – 9:25 10' break 9:35 – 10:20		Introduction to interactions of X-rays and neutrons with matter (2/2) <i>Andrew Harrison</i>	Neutrons: scattering and instrumentation (2/2) <i>Andrew Wildes</i>	Hard X-ray optics for SR beamlines <i>Ray Barrett</i>	From a diffraction experiment to the crystal structure <i>Marc de Boissieu</i>
	09:30 – 10:30 Welcome <i>Marc de Boissieu and Béatrice Grenier</i>				Training on Crystallography (1/2) <i>Claire Colin & Béatrice Grenier</i>
10:50 – 11:35 10' break 11:45 – 12:30	Introduction to the science at large scale facilities: neutron, synchrotron and XFEL sources <i>Marc de Boissieu</i>	Neutrons: scattering and instrumentation (1/2) <i>Andrew Wildes</i>	Crystallography (1/2) <i>Béatrice Grenier</i>	Crystallography (2/2) <i>Béatrice Grenier</i>	Introduction to X-ray Spectroscopies <i>Sakura Pascarelli</i>
14:00 – 14:45 10' break 14:55 – 15:40	Introduction to interactions of X-rays and neutrons with matter (1/2) <i>Andrew Harrison</i>	ESRF & ILL presentations (45' each) <i>F. Sette & P. Langan</i> + UGA presentation (15') <i>H. Courtois</i>	ESRF visit <i>Yannick Lacaze and ESRF staff</i>	ILL visit <i>Andrew Wildes</i>	Fundamentals of X-ray Absorption Fine Structure Spectroscopy <i>Sakura Pascarelli</i>
16:10 – 16:55 10' break 17:05 – 17:50	Introduction to Synchrotron Radiation, Coherence, and the Evolution to Free Electron Lasing <i>David Attwood</i>	X-ray Optics and Applications <i>David Attwood</i>	Basics of X-ray Detectors; How do they work and how are they characterised? <i>Heinz Graafsma</i>	Small angle scattering <i>Martin Müller</i>	Questions on lectures (with lecturers of the week, A and B together)
	18:00 Welcome cocktail on Gather town				

SCHEDULE FOR SESSION B

Week 2: 7th to 11th March

	Monday 7	Tuesday 8	Wednesday 9	Thursday 10	Friday 11
8:40 – 9:25 10' break 9:35 – 10:20	Introduction to neutron and X-ray inelastic scattering <i>Christiane Alba-Simionesco</i>	9:00 – 12:30 ESRF PRACTICALS (in small groups)	9:00 – 12:30 ESRF PRACTICALS (in small groups)	Handling big data <i>Vincent Favre-Nicolin</i>	X-ray spectroscopy <i>Serena DeBeer</i>
10:50 – 11:35 10' break 11:45 – 12:30	Introduction to imaging techniques <i>Federica Marone</i>			Training on Crystallography (2/2) <i>Claire Colin & Béatrice Grenier</i>	Solution X-ray Scattering from Biological Macromolecules <i>Mirjam Czjzek</i>
14:00 – 14:45 10' break 14:55 – 15:40	Protein crystallography: data collection and reduction, phasing (1/2) <i>Mark Roe</i>	14:00 – 17:30 ESRF PRACTICALS (in small groups)	14:00 – 17:30 ESRF PRACTICALS (in small groups)	Full-field coherent Imaging <i>Peter Cloetens</i>	14:00 – 14:30 DECTRIS <i>Dubravka Sisak Jung</i>
16:10 – 16:55 10' break 17:05 – 17:50	Electron microscopy for structural biology <i>Ambroise Desfosses</i>			Serial (femtosecond) crystallography <i>Thomas Barends</i>	14:30 – 18:00 POSTER SESSION on Gather Town
18:00 – 19:00				Questions on lectures (with lecturers of the week, A and B together)	

SCHEDULE FOR SESSION B

Week 3: 14th to 18th March

	Monday 14	Tuesday 15	Wednesday 16	Tuesday 17	Friday 18
8:40 – 9:25 10' break 9:35 – 10:20	FELs & ultrafast applications <i>Sakura Pascarelli</i>	Crystallization of biological macromolecules: Theoretical and practical aspects of crystallization in solution <i>Monika Spano</i>	Small angle scattering <i>Frank Gabel</i>	Following protein structural changes as they happen with time resolved X-ray techniques <i>Giorgio Schirò</i>	Neutron macromolecular crystallography <i>Matthew Blakeley</i>
10:50 – 11:35 10' break 11:45 – 12:30	Science at neutron spallation sources: exploiting accelerator based facilities <i>Sean Langridge</i>	Protein crystallography: data collection and reduction, phasing (2/2) <i>Mark Roe</i>	Time resolved fluorescence and circular dichroism studies with SR <i>David Clarke</i>	Membrane diffraction <i>Dave Barlow</i>	Non-crystallographic ways of obtaining structural and dynamical information at different length and time scales for biological systems <i>Peter Judge</i>
14:00 – 14:45 10' break 14:55 – 15:40	X-ray and neutron reflectivity in biophysics <i>Yuri Gerelli</i>	"How to write a good proposal" <i>Giorgio Schirò, Joanne Mc Carthy</i> <i>and members of the organising committee</i>	Super resolution microscopy: a revolution in biological imaging <i>Dominique Bourgeois</i>	TUTORIALS / LABS (in small groups)	Fibre diffraction <i>Craig Boote</i>
16:10 – 16:55 10' break 17:05 – 17:50	Introduction to current trends and challenges of molecular and structural biology <i>Claude Sauter</i>		16:10 – 17:10 Ancient materials research with synchrotron and neutron techniques <i>Sebastian Schoeder</i>		Questions on lectures (with lecturers of the week, A and B separated)
			17:20 Fostering Science <i>Thibaut David</i> 17:35 NFFA-EUROPE-PILOT <i>Anthony Leonard</i>		

SCHEDULE FOR SESSION B

Week 4: 21st to 25th March: 'Outside' GrenobleWeek 5: 28th March – 1st April

	Monday 28	Tuesday 29	Wednesday 30	Thursday 31	Friday 1
8:40 – 9:25 10' break 9:35 – 10:20	Medical imaging with synchrotron radiation <i>Giuliana Tromba</i>	9:00 – 12:30 ILL TUTORIALS with demonstrations (in small groups)	Towards integrated structural biology: studying macromolecular complexes by native mass spectrometry <i>Elisabetta Boeri Erba</i>	Radiation damage in protein crystallography <i>Martin Weik</i>	8:40 – 9:40 Use of synchrotron techniques to study the fate of nanoparticles in cells <i>Isabelle Michaud-Soret</i>
10:50 – 11:35 10' break 11:45 – 12:30	Crystallography of viruses and very large macromolecules <i>David Stuart</i>		Nuclear Magnetic Resonance <i>Martin Blackledge</i>	Integrative biology <i>Annalisa Pastore</i>	10:10 – 11:10 Deuteration for biological research <i>Trevor Forsyth</i> 11:30 – 12:30 Protein Dynamics by Neutron Scattering and Dynamics of Macromolecules <i>Giuseppe Zaccai</i>
14:00 – 14:45 10' break 14:55 – 15:40	Protein Dynamics by Neutron Scattering and Dynamics of Macromolecules <i>Giuseppe Zaccai</i>	14:00 – 17:30 ILL TUTORIALS with demonstrations (in small groups)	TUTORIALS / LABS (in small groups)	TUTORIALS / LABS (in small groups)	Analysis and visualization of 3D imaging data <i>Chris Buckley</i>
16:10 – 16:55 10' break 17:05 – 17:50	Coherent diffraction imaging and ptychography for soft condensed matter and biology <i>Chris Jacobsen</i>				16:10 – 17:10 Hercules Mythology <i>Chris Buckley</i> 17:20 – 18:30 EVALUATION MEETING
18:30 – 20:30					Farewell wine and cheese on Gather Town

PRACTICALS / LABS / TUTORIALS FOR SESSION B

Coordinators: Béatrice GRENIER, Didier NURIZZO, Petra PERNOT, Giorgio SCHIRO

Contact: Béatrice GRENIER

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

During the weeks 2, 3, and 5, organised by Grenoble, all full-time participants will carry out two remote tutorials/demo at Institut Laue Langevin (ILL) and two, three, or four remote practicals at European Synchrotron Radiation Facility (ESRF), delivered mostly by instrument responsables and beamline scientists. In addition, they will participate in remote tutorials (mostly data treatment) and labs (on experiments located at IBS), taught by staff / users of large scale facilities essentially (three to five tutorials / labs in total).

All full-time participants will follow additional practicals / tutorials during week 4, fully organised by our partners. Four different groups have been constituted, each following the programme organised by one of the following partner facilities:

- the German synchrotron radiation facility Deutsches Elektronen-Synchrotron (**DESY**) and the **European XFEL** in Hamburg, hopefully ON SITE,
- the Karlsruhe Institute of Technology (**KIT**) Light Source in Karlsruhe, ONLINE,
- the Swiss synchrotron radiation facility Swiss Light Source (**SLS**) and the Swiss spallation neutron source **SINQ** at the Paul Scherrer Institute (PSI) in Villigen, ONLINE,
- the French synchrotron **SOLEIL** Saint-Aubin, close to Paris, hopefully ON SITE.

SOLEIL will welcome 8 participants from the B session, divided in groups B1 and B2, while the other partners will welcome 4 participants from the B session (group B). At a given partner facility, the students from the same group will follow the same practicals / tutorials program. As concerns practicals / labs / tutorials organised by Grenoble, no fixed groups were made, but rather an individual and personalised schedule. Therefore, we assigned a number to each participant, for a better readability in the tables that will follow (b01 to b20). All the information regarding the various groups and the numbering b01, b02, ... can be found in the PRACTICAL INFORMATION section of this booklet.

The complete practicals / labs / tutorials schedule was done in the best possible way (regarding the many constraints) with respect to their main research interests and wishes expressed. Each full-time participant will perform selected practicals, labs, and tutorials, as indicated in the following.

The list of all practicals / labs / tutorials (titles and instructors) is given in the following pages, together with the groups B, B1, or B2 and participants b01, b02, ... assignment (refer to pages 16 – 18), and the complete individual schedule for all participants can be found on a separate 2 pages PDF document.

The summaries of the practicals / labs / tutorials are available in MY SCHEDULE on the Hercules website: <https://hercules-school.eu/my-dashboard> (once connected).

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

* **Practical:** hands-on training on large scale facility instruments ; **Lab:** hands-on training on laboratory experiments ;
Tutorial: data treatment (on data recorded beforehand).

► Remote tutorials/demo at ILL, Grenoble

29th MARCH, 9:00 – 12:30 and 14:00 – 17:30



INSTRUMENT	INSTRUCTOR(S)	TITLE	29 th March	
			9:00	14:00
D22	MATSARSKAIA Olga	SANS for biology	b02 b06 b10 b12 b18 b20	
IN13 / IN16B	PETERS Judith	Biomolecular motions probed by neutron scattering	b03 b05 b08 b09 b13	b02 b04 b07 b14 b16 b20
IN15	HOFFMANN Ingo	Short Introduction to NSE	b04 b07 b16 b17	b01 b09 b10 b11 b13 b15 b19
LADI	GAJDOS Lukas	Neutron quasi-Laue data reduction and joint X-ray/neutron refinement	b01 b11 b14 b15 b19	b03 b05 b06 b08 b12 b17 b18

Due to the online format of the school, the reactor shutdown, and the ongoing works for upgrades at ILL, not all the instructors will be able to make a demonstration or a virtual visit of the instrument, hence these teachings will unfortunately be more tutorials like than practicals.

You can find information on the various neutron instruments listed above at the following URL:
<https://www.ill.eu/users/instruments/instruments-list>

► Remote practicals at ESRF, Grenoble

8th and 9th MARCH, 9:00 – 12:30 and 14:00 – 17:30



BEAMLINE	INSTRUCTOR(S)	TITLE	8 th March		9 th March	
			9:00	14:00	9:00	14:00
BM05	DOLLMAN Kathleen, JAKATA Kudakwashe	Synchrotron - Tomography	b05 b09 b17 b19	b05 b09 b17 b19	b07 b13 b16 b18 b20	b07 b16 b18
BM29	PERNOT Petra, TULLY Mark, POPOV Anton, MOUSSAOUI Dihia	Macromolecule Small Angle Scattering with X-rays (BioSAXS)	b01 b02 b04 b08 b11 b15 b18		b03 b05 b09 b12 b17 b19 a36	
CM01	KANDIAH Eazhisai, FREIHERR VON SCHOLLEY Gian Luca	Sample preparation and data collection for high resolution cryo electron microscopy			b01 b04 b08 b10 b14 b15	b02 b03 b11 b12 b13 b20
ID09	LEVANTINO Matteo, MARIETTE Céline, VOLTE Alix	Time-resolved X-ray scattering		b07 b10 b14 b16		
ID21	COLOCHO HURTARTE Luis, VERONESI Giulia	Multi-modal micro-analyses for cultural heritage	b03 b06 b07 b12 b13			
ID23, ID30	DE SANCTIS Daniele, ORLANS Julien, BASU Shibom, SANTONI Gianluca	MX data collection in the AlphaFold age	b10 b14 b16 b20	b01 b02 b06 b11 b12 b15		
icOS Lab	ROYANT Antoine, ENGILBERGE Sylvain	In crystallo optical spectroscopy at the icOS Lab				b01 b04 b05 b06 b08 b09 b14 b17

Due to the online format, a few practicals will be more tutorials like (i.e., without live data acquisition).

Most of the participants following the practical on BM05 in the morning will then have a tutorial taught by the same instructors, directly related to the practical (as can be seen in the table above).

One participant from the A session (indicated in blue) will also follow the BioSAXS practical on BM29.



UNIVERSITÀ
DEGLI STUDI
DI PALERMO

► Remote tutorials and labs

17th, 30th, and 31st MARCH, 14:00 – 17:30

Tutorials

TUTORIAL	INSTRUCTOR(S)	TITLE	17 th March	30 th March	31 st March
			14:00	14:00	14:00
BIOINF	GRUDININ Sergei	Structural bioinformatics: modeling with SAXS/SANS data		b04 b08 b11 b16 b19 b20 a19	b02 b03 b05 b06 b09 b10 b14
CDI-Ptycho	FAVRE-NICOLIN Vincent	Coherent X-ray Imaging analysis with PyNX (CDI, Ptychography,...)			b04 b07 b13 b17 b19
FLUO	SANTACALDO Giuseppe	Fluorescence Lifetime Imaging and Phasor approach analysis	b01 b06 b07 b13		
MX	SANTONI Gianluca	Multi-crystal data collection			b01 b08 b11 b12 b15
OASYS	SANCHEZ DEL RIO Manuel, REYES-HERRERA Juan	Modelling synchrotron radiation beamlines with Oasys	b03 b05 b09 b10		
RICS	VETRI Valeria	Raster scan image correlation spectroscopy	b14 b17 b18 b19		
SAXS	THUREAU Aurélien	SAXS analysis of a SEC-SAXS experiment		b01 b02 b03 b06 b09 b10	

For some of the tutorials, you will need to install **specific softwares** beforehand, to be able to do the data treatment. **Please refer to the next page.**

One participant from the A session (indicated in blue) will also follow the BIOINF tutorial.

Labs / Tutorials at IBS, Grenoble

TUTORIAL / LAB	INSTRUCTOR(S)	TITLE	17 th March	30 th March	31 st March
			14:00	14:00	14:00
COOT	COBESSI DAVID	Macromolecular model building and analysis in electron density maps using COOT	b08 b11 b12 b15		
NMR	FAVIER Adrien	Liquid state NMR practical	b02 b04 b16 b20	b05 b12 b15 b18	
SMLM	GLUSHONKOV Oleksandr	Introduction to Single-Molecule Localization Microscopy (SMLM)		b07 b13 b14 b17	b16 b18 b20

Software installation instructions and operating system (OS) needed for some of the tutorials:

TUTORIAL	Software installation instructions	OS
BIOINF	Pymol + some packages from our website	Linux or Mac OS
CDI-Ptycho	No software to install beforehand	any OS
FLUO	No software to install beforehand	any OS
OASYS	Oasys: https://github.com/oasys-kit/oasys-installation-scripts/wiki#install-oasys-in-your-system	any OS
RICS	https://www.lfd.uci.edu/globals/SimFCS 3 trial version	Windows
SAXS	Atsas suite 3.0.4 (https://www.embl-hamburg.de/biosaxs/software.html). I will provide a link to download SAXS curves a few days before the practical.	any OS

Some of the instructors will send you an e-mail before the tutorial to give you (further) instructions about the software installation.

If some of you do not have the required OS system, you may request the remote control to another participant from time to time, so that you are also able to work during the tutorial.

Do not hesitate to contact your instructor beforehand if you have any question about the operating system and/or the software installation. You can find their e-mail addresses at the end of the booklet.



PROGRAMME of PARTNERS



DESY (Hamburg) – *ON SITE*



European XFEL (Hamburg) – *ON SITE*



KIT (Karlsruhe) – *ONLINE*



SOLEIL (Saint-Aubain, Paris area) – *ON SITE*



SLS and SINQ @ PSI (Villigen) – *ONLINE*

GENERAL PLANNING for 21 – 25 MARCH

	Monday 21 March	Tuesday 22 March	Wednesday 23 March	Thursday 24 March	Friday 25 March
8:15 - 8:30	Welcome				
8:30 - 9:15	Lecture 1: Angle-Resolved Photoelectron Spectroscopy <i>V. Strocov</i>	Lecture 2: Extreme Ultraviolet Lithography <i>I. Mochi</i>	Lecture 4: Chemical Spectroscopy <i>O. Safonova, P. Hemberger</i>	Lecture 8: Introduction SmuS <i>H. Luetkens</i>	Lecture 11: Specialized Talk SwissFEL <i>K. Schnorr</i>
9:15 -10:00	Virtual Tour 1: SLS	Lecture 3: X-ray Microscopy <i>J. Raabe</i>	Lecture 5: Resonant inelastic X-ray scattering <i>T. Schmitt</i>	Lecture 9: Examples SmuS <i>Z. Salman</i>	Virtual Tour 3: SwissFEL
10:00 - 10:30	coffee break	coffee break	coffee break	coffee break	coffee break
10:30-11:15	SLS beamlines practical #1	SLS beamlines practical #2	Lecture 6: Introduction SINQ <i>C. Niedermayer</i>	Virtual Tour 2: SINQ	Student Talks I: 3x (10 + 5) min
11:15-12:00			Lecture 7: Examples Neutron Spectroscopy <i>F. Juranyi</i>	Lecture 10: Introduction SwissFEL <i>C. Bostedt</i>	Student Talks II: 4x (10 + 5) min 11:15 - 12:15
12:00 - 13:30	lunch break	lunch break	lunch break	lunch break	lunch break
13:30 - 18:00	SLS beamlines practical #1	SLS beamlines practical #2	SINQ Tutorials	Student Talks Preparation	Student Talks III: 3x (10 + 5) min
					13:30 - 14:15 Quiz & Wrap up
					14:15 – 15:00

PLANNING of PRACTICALS at SLS synchrotron

SESSION A

FACILITY / BEAMLINE	INSTRUCTOR(S)	TITLE	21 March	22 March
SLS / XIL-II	Iacopo Mochi	Extreme ultraviolet ptychography, Lensless imaging of an extreme ultraviolet photomask sample	A1	
SLS / MS	Nicola Casati, Michał Andrzejewski	Materials Science: X-ray Powder Diffraction, High pressure structural evolution		A1
SLS / PEARL	Matthias Muntwiler	Photoelectron Spectroscopy and Diffraction, Composition and Structure of a two-dimensional boron nitride layer	A2	
SLS / PHOENIX	Camelia Borca, Thomas Huthwelker	Micro X-ray Absorption Spectroscopy, Iron spatial distribution and its oxide forms in fluid catalytic cracking particles		A2
SLS / microXAS	Dario Ferreira Sanchez	Two- and Three-Dimensional X-ray micro-XRD and XRF synchrotron, Identifying degradation mechanisms on Solid Oxide Cells through X-ray μ -XRD and μ -XRF synchrotron studies	A3	
SLS / SuperXAS	Olga Safonova, Adam Clark	Quick X-ray Absorption Spectroscopy, Evolution of silica supported Cu catalyst during activation in hydrogen		A3
SLS / X-Treme	Jan Dreiser	X-ray absorption spectroscopy (XAS) / X-ray magnetic circular dichroism (XMCD), X-ray magnetic circular dichroism of Fe(II) spin crossover molecules	A4	
SLS / ADRESS	Vladimir Strocov, Procopios Constantinou	Soft-X-ray ARPES (Angle-Resolved Photoelectron Spectroscopy), What is the Fermi Surface of your Smartphone? Explore electronic structure of semiconductor heterostructures by soft-X-ray ARPES		A4

Please refer to pages 16 – 17 for the nominative list of groups A1, A2, A3, and A4.

PLANNING of TUTORIALS at SINQ spallation source

SESSION A

FACILITY / TUTORIAL	INSTRUCTOR	TITLE	23 March
SINQ / HRPT, DMC	Victor Porée	Crystallographic and magnetic structure determination by neutron powder diffraction	W1
SINQ / CAMEA	Daniel Mazzone	Detection of spin-waves in MnF ₂ with a continuous angle multiple energy analysis spectrometer	W2
SINQ / Imaging	Anders Kaestner	Root water uptake in soil	W3

PLANNING of PRACTICALS at SLS synchrotron

SESSION B

FACILITY / BEAMLINE	INSTRUCTOR(S)	TITLE	21 March	22 March
SLS / TOMCAT	Christian Schlepütz, Margaux Schmeltz	Absorption and phase contrast X-ray tomographic microscopy	B	
SLS / PoLux	Benjamin Watts	Scanning transmission soft X-ray microscopy (STXM), Composition mapping of a thin-film polymer blend		B

PLANNING of TUTORIALS at SINQ spallation source

SESSION B

FACILITY / BEAMLINE	INSTRUCTOR	TITLE	23 March
SINQ / SANS	Boyang Zhou	Small-angle Neutron scattering: data reduction and analysis	B

Please refer to pages 16 – 17 for the nominative list of groups / subgroups B, W1, W2, and W3.

PLANNING for MONDAY 21 MARCH

TIME	TITLE	LECTURERS / INSTRUCTOR
09:00 – 9:30	Welcome	Anton Plech, Michael Hagelstein
09:30 – 10:15	Accelerators at KIT	Marcel Schuh, Anke-Susanne Müller
10:15 – 10:30	Break	
10:30 – 11:30	Safety and Radiation Protection	Michael Hagelstein
11:30 – 11:45	Break	
11:45 – 12:30	Beamlines at KIT	Anton Plech / Tilo Baumbach
12:30 – 14:00	Lunch break	
14:00 – 17:30	Hands-on KARA (Karlsruhe Research Accelerator) *	Marcel Schuh
14:00 – 17:30	Hands-on FLUTE (far-infrared linac and test experiment) *	Nigel Smale

* The participants choose between KARA and FLUTE in the afternoon

PLANNING for PRACTICALS (and LECTURES) at KIT

DAY	BEAMLINE	TITLE	LECTURERS / INSTRUCTORS
22 March 9:00 – 17:30	TOPOTOMO	X-Ray Microtomography at KARA beamlines and labs	T. van de Kamp, M. Zuber, E. Hamann
23 March 9:00 – 17:30	SCD	High-resolution diffraction and surface sensitive scattering	G. Buth, A. Plech
24 March 9:00 – 17:30	FLUO	Fluorescence spectroscopy of biological materials *	M. Czyzycki, R. Simon
25 March 9:00 – 13:00	LIGA	Deep X-ray lithographical manufacturing of refractive X-ray lenses	M. Börner, H. Fornasier, U. Köhler, A. Last
25 March 14:00 – 18:30	IR1/MPI	Talk on: Infrared ellipsometry of cuprate superconductors at the IR1 Beamline (1 h)	A. Boris, X. Shi
	INE	Talk on: XAFS investigation of zirconium compound at the INE-Beamline (3 h)	T. Vitova, J. Rothe

Each day-long session is finished by a Question & Answer session, where a dialog can be reached between the participants and the lecturers/instructors. The lunch breaks are not indicated in the above schedule. See Hercules website for more information.

All participants stay together (i.e. are not split in groups) during these four days.

* The practical on Thursday (FLUO) addresses mainly group B participants, but would also be open to A group.

GENERAL PLANNING for 21 – 25 MARCH

	Monday 21 March	Tuesday 22 March	Wedn. 23 March	Thursday 24 March	Friday 25 March
9:00 – 9:30	Welcome – SOLEIL (J. Daillant) <i>Auditorium</i>	PRACTICALS on SOLEIL Beam Lines	PRACTICALS on SOLEIL Beam Lines	T. MORENO Calculation of a hard x-rays Beam Line <i>Auditorium</i>	Data Analysis Talk preparation <i>5 rooms booked</i>
9:30 – 10:30	Visit of the Synchrotron				
10:30 – 11:00	Coffee break			Coffee break	Coffee break
11:00 – 12:30	SESSION A C. LAULHE Time-resolved X-ray Scattering <i>Auditorium</i>			T. MORENO Calculation of a hard x-rays Beam Line <i>Auditorium</i>	Data Analysis Talk preparation <i>5 rooms booked</i>
12:00 – 14:00	Lunch at SOLEIL			Lunch at SOLEIL	Lunch at SOLEIL
14:00 – 15:30	S. RAVY How light became a wave <i>Auditorium</i>			F. OTT How to build a neutron spectrometer <i>Auditorium</i>	Students presentation and Evaluation Meeting <i>Auditorium</i>
15:30 – 16:00	Coffee break			Coffee break	
16:00 – 17:30	F. BORONDICS Synchrotron infrared emission and spectroscopic applications <i>Auditorium</i>			Data Analysis Talk preparation <i>5 rooms booked</i>	
18:00 – 19:00	Welcome drink <i>Espace caf��teria</i>				

Additional practical information will be sent by e-mail before the travel of the participants to SOLEIL.

*on site*

PLANNING OF PRACTICALS at SOLEIL synchrotron

Please refer to pages 16 – 17 for the nominative list of groups A1, A2, A3, B1, and B2.

SESSION A

BEAMLINES	INSTRUCTORS	TITLE	22 & 23 March
ROCK CRISTAL	BRIOIS Valérie ELKAIM Erik	Memory effect of Layered Double Hydroxide, by EXAFS and WAXS	A1
GALAXIES DiffAbs	RUEFF Jean-Pascal REGUER Solenn and MOCUTA Cristian	Fingerprinting Mn properties in natural minerals by X-ray spectroscopy and X-ray diffraction	A2
AILES SAMBA	BRUBACH Jean-Blaise FONDA Emiliano	Spin transition in molecular magnets studied by IR THz spectroscopy and XAFS	A3

SESSION B

BEAMLINES	INSTRUCTORS	TITLE	22 & 23 March
SMIS DISCO LUCIA	SANDT Christophe JAMME Frédéric RIVARD Camille	Liver diseases by integrative synchrotron imaging microcopies	B1
PX1 SWING	MONTAVILLE Pierre THUREAU Aurélien	An integrative pipeline combining microfluidics, SHG microscopy, SAXS and X-ray crystallography to characterize <i>In vivo</i> protein crystallization	B2

► DESY / European XFEL on site



GENERAL PLANNING for 21 – 25 MARCH

Monday 21 March

TIME	TITLE	LECTURERS / INSTRUCTOR
8:30	Meeting at DESY in front of building 99 (CFEL)	
8:30 – 9:10	Transportation to European XFEL	
9:10 – 9:20	Introduction to European XFEL	Sakura Pascarelli
9:30 – 9:50	Introduction to DESY	Oliver Seeck
9:50 – 10:00	<i>Coffee break</i>	
10:00 – 11:00	Science topics at European XFEL	Sakura Pascarelli
11:00 – 12:00	Science topics at PETRA beamlines	Oliver Seeck
12:00 – 13:00	Tour XFEL	
13:00 – 14:30	<i>Lunch break</i>	
14:30 – 15:00	Tour DESY	
15:00 – 18:00	Practicals at PETRA beamlines / DESY	

Tuesday 22 March

9:00 – 18:00	Practicals at PETRA beamlines / DESY (continuation)
--------------	---

Wednesday 23 and Thursday 24 March

9:00 – 18:00	Practicals / Tutorials at European XFEL beamlines
--------------	---

Friday 25 March

9:00 – 18:00	Talks preparation and presentation
--------------	------------------------------------

Lunch breaks are not indicated for Tuesday to Friday.
See Hercules website for more information.

Please refer to pages 16 – 17 for the nominative list of groups A1, A2, A3, and B indicated in the following.

► DESY / European XFEL *on site*



PLANNING of PRACTICALS at DESY synchrotron SESSION A

Monday 21 March (from 15:00) and Tuesday 22 March (all day)

FACILITY / BEAMLINE	INSTRUCTOR(S)	TITLE	21 & 22 March
DESY / P01	Ilya Sergeev	Nuclear resonant scattering applications	A1
DESY / P08	Florian Bertram and Chen Shen	Surface diffraction at Langmuir films	A2
DESY / P24	Martin Tolkiehn	Single crystal diffraction	A3
DESY / P62	Sylvio Haas	Small angle scattering on nano particles	A4

PLANNING of TUTORIALS / PRACTICALS at European XFEL SESSION A

Wednesday 23 March

TIME	INSTRUCTOR(S)	TITLE	GROUP(S)
9:00 – 13:00	Anders MADSEN	X-ray Scattering and Imaging Experiments at MID and visit of Instrument	A1
9:00 – 12:00	Ruslan KURTA	Fluctuation X-ray Scattering for Materials Research with an XFEL	A2, A4
9:00 – 12:00	Christian BRESSLER	Virtual Lab - FXE data analysis	A3
14:00 – 15:30	Ulf ZASTRAU	X-ray spectroscopy of Relativistic laser plasmas	A1, A4
16:00 – 17:30	Faisal KOUA, Jayanath KOLIYADU, Raphael DE WIJN	Introduction to X-ray free electron laser for single particle imaging and Serial Femtosecond Crystallography	A1, A4
14:00 – 18:00	Anders MADSEN	X-ray Scattering and Imaging Experiments at MID and visit of Instrument	A2
14:00 – 17:00	Christopher MILNE	Virtual Lab - FXE data analysis	A3

► DESY / EuropeanXFEL *on site*

Thursday 24 March

TIME	INSTRUCTOR(S)	TITLE	GROUP(S)
9:00 – 12:00	Ruslan KURTA	Fluctuation X-ray Scattering for Materials Research with an XFEL	A1, A3
9:00 – 11:30	Valerio CERANTOLA	High pressure science using diamond anvil cells DAC	A2
9:00 – 12:00	Christian BRESSLER	Virtual Lab - FXE data analysis	A4 (with B)
14:00 – 16:30	Valerio CERANTOLA	High pressure science using diamond anvil cells DAC	A1
14:00 – 15:30	Ulf ZASTRAU	X-ray spectroscopy of Relativistic laser plasmas	A2, A3
16:00 – 17:30	Faisal KOUA, Jayanath KOLIYADU, Raphael DE WIJN	Introduction to X-ray free electron laser for single particle imaging and Serial Femtosecond Crystallography	A2, A3
14:00 – 17:00	Christopher MILNE	Virtual Lab - FXE data analysis	A4 (with B)

► DESY / European XFEL *on site*



PLANNING of PRACTICALS at DESY synchrotron

SESSION B

Monday 21 March (from 15:00) and Tuesday 22 March (all day)

FACILITY / BEAMLINE	INSTRUCTOR	TITLE	21 & 22 March
DESY / P11	Johanna Halanpaeae	Macromolecular crystallography	B

PLANNING of PRACTICALS / TUTORIALS at European XFEL

SESSION B

Wednesday 23 March

TIME	INSTRUCTOR(S)	TITLE	GROUP
9:00 – 10:30	Faisal KOUA, Jayanath KOLIYADU	Introduction to X-ray free electron laser Structural Biology	B
11:00 – 13:00	Kristina LORENZEN	Growing and Characterisation of Micro-crystals and Sample Injection for Serial Femtosecond Crystallography	B
14:00 – 17:00	Ruslan KURTA	Fluctuation X-ray Scattering for Biological Structure Determination with an XFEL	B

Thursday 24 March

TIME	INSTRUCTOR(S)	TITLE	GROUP
9:00 – 12:00	Christian BRESSLER	Virtual Lab - FXE data analysis	B (with A4)
14:00 – 17:00	Christopher MILNE	Virtual Lab - FXE data analysis	B (with A4)

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

SURNAME	Name	Institute	email
ALBA SIMIONESCO	Christiane	CEA-LLB	christiane.alba-simionescu_at_cea.fr
ATTWOOD	David	Univ. of California, Berkeley	attwood_at_berkeley.edu
BARENDs	Thomas	Max Planck Institute for Medical Research	Thomas.Barends_at_mpimf-heidelberg.mpg.de
BARLOW	Dave	University of Manchester	david.barlow_at_manchester.ac.uk
BARNES	Adrian	University of Bristol, Department of Physics	a.c.barnes_at_bristol.ac.uk
BARRETT	Ray	ESRF	barrett_at_esrf.fr
BAUMBACH	Tilo	KIT	tilo.baumbach_at_kit.edu
BLAKELEY	Matthew	EMBL	blakeley_at_ill.fr
BLAKLEDGE	Martin	IBS	martin.blakledge_at_ibs.fr
BOERI ERBA	Elisabetta	IBS / EMBL / UVHCI	elisabetta.boeri-erba_at_ibs.fr
BOOTE	Craig	Cardiff University	BooteC_at_cardiff.ac.uk
BOURGOIS	Dominique	IBS	dominique.bourgeois_at_ibs.fr
BROOKES	Nicholas	ESRF	brookes_at_esrf.fr
BUCKLEY	Chris	GE Healthcare, BioSciences The Grove Centre	christopher.buckley_at_ge.com
CALLEGARI	Carlo	Elettra Sincrotrone Trieste	carlo.callegari_at_elettra.eu
CERNY	Radovan	Univ. Genève	Radovan.Cerny_at_unige.ch
CLARKE	David	CLRC Daresbury Laboratory	dave.clarke_at_stfc.ac.uk
CLOETENS	Peter	ESRF	cloetens_at_esrf.fr
COLIN	Claire	UGA / Institut Néel	claire.colin_at_neel.cnrs.fr
COURTOIS	Hervé	UGA / Institut Néel	herve.courtois_at_univ-grenoble-alpes.fr
CZAKKEL	Orsolya	ILL	czakkel_at_ill.fr
CZJZEK	Myrjam	Station biologique de Roscoff	czjzek_at_sb-roscoff.fr
DAVID	Thibaud	CEA Tech	thibaut.david_at_cea.fr
DE BOISSIEU	Marc	SIMaP	marc.de-boissieu_at_simap.inpg.fr
DE BRION	Sophie	UGA / Institut Néel	sophie.debrion_at_neel.cnrs.fr
DEBEER	Serena	Max Planck Institute for Chemical Energy Conversion	serena.debeer_at_cec.mpg.de
DESFOSES	Ambroise	IBS	ambroise.desfosses_at_ibs.fr
DIL	Hugo	EPFL	hugo.dil_at_epfl.ch
ESPINOSA	Enrique	Université de Lorraine	enrique.espinosa_at_univ-lorraine.fr
FAVRE NICOLIN	Vincent	ESRF / UGA	vincent.favre-nicolin_at_esrf.fr
FERNANDEZ-MARTINEZ	Alex	ISerre	alex.fernandez-martinez_at_univ-grenoble-alpes.fr

FORSYTH	Trevor	ILL	tforsyth_at_ill.fr
FRANCHI	Andrea	ESRF	andrea.franchi_at_esrf.fr
SURNAME	Name	Institute	email
GABEL	Frank	IBS	frank.gabel_at_ibs.fr
GATTA	Diego	Univ. Milano	diego.gatta_at_unimi.it
GERELLI	Yuri	Univ. Politecnica delle Marche	y.gerelli_at_staff.univpm.it
GRAAFSMA	Heinz	DESY Hamburg	Heinz.Graafsma_at_desy.de
GRENIER	Béatrice	UGA / CEA-IRIG-MEM	grenier_at_ill.fr
GRUEBEL	Gerhart	DESY Hamburg	gerhard.gruebel_at_desy.de
GUIZAR-SICAIRIOS	Manuel	PSI	manuel.guizar-sicairos_at_psi.ch
HARRISSON	Andrew	DIAMOND	andrew.harrison_at_diamond.ac.uk
HJORVARSSON	Bjorgvin	Uppsala University	bjorgvin.hjorvarsson_at_physics.uu.se
JACOBSEN	Chris	Northwestern University	chris.j.jacobsen_at_gmail.com
JUDGE	Peter	Biochemistry, Univ. of Oxford	peter.judge_at_bioch.ox.ac.uk
JUHIN	Amélie	Sorbonne Université	amelie.juhin_at_upmc.fr
LABARTINO	Jérôme	ESRF	jerome.labartino_at_esrf.fr
LACAZE	Yannick	ESRF	yannick.lacaze_at_esrf.fr
LAKE	Bella	HZB	bella.lake_at_helmholtz-berlin.de
LANGAN	Paul	ILL	langan_at_ill.fr
LANGRIDGE	Sean	ISIS	sean.langridge_at_stfc.ac.uk
LE TACON	Matthieu	KIT	matthieu.letacon_at_kit.edu
LEONARD	Anthony	ESRF	anthony.leonard_at_esrf.fr
LYONNARD	Sandrine	CEA-IRIG	sandrine.lyonnard_at_cea.fr
MARONE	Federica	PSI	federica.marone_at_psi.ch
MC CARTHY	Joanne	ESRF	mccarthy_at_esrf.fr
MICHAUD -SORET	Isabelle	CEA-CBM	isabelle.michaud-soret_at_cea.fr
MÜLLER	Martin	Helmholtz-Zentrum Geesthacht	Martin.Mueller_at_hzg.de
PAOLASINI	Luigi	ESRF	paolasin_at_esrf.fr
PASCARELLI	Sakura	European XFEL	sakura.pascarelli_at_xfel.eu
PASTORE	Annalisa	King's college London	annalisa.1.pastore_at_kcl.ac.uk
PAUWELS	Kristof	ESRF	kristof.pauwels_at_esrf.fr
PERRING	Toby	ISIS	toby.perring_at_stfc.ac.uk
QURESHI	Navid	ILL	qureshi_at_ill.fr
RENAUD	Gilles	CEA-IRIG	gilles.renaud_at_cea.fr
RENNIE	Adrian	Dept. of Physics, Uppsala University	adrian.rennie_at_fysik.uu.se
ROE	Mark	School of life sciences, University of Sussex	m.roe_at_sussex.ac.uk
SAUTER	Claude	IBMC, Univ. Strasbourg	c.sauter_at_ibmc-cnrs.unistra.fr
SCHIRO	Giorgio	IBS	giorgio.schiro_at_ibs.fr

SCHNEIDER	Claus	Forschungszentrum Jülich	c.m.schneider_at_fz-juelich.de
SCHOEDER	Sebastian	Synchrotron SOLEIL	sebastian.schoeder_at_synchrotron-soleil.fr
SURNAME	Name	Institute	email
SEECK	Oliver	DESY Hamburg	oliver.seeck_at_desy.de
SETTE	Francesco	ESRF	dgooffice_at_esrf.fr
SISAK JUNG	Dubravka	DECTRIS	dubravka.sisak_at_dectris.com
SPANO	Monika	IBS	monika.spano_at_ibs.fr
STAUB	Urs	PSI	urs.staub_at_psi.ch
STUART	David	Medical sciences divisions, University of Oxford	dave_at_strubi.ox.ac.uk, stuart-pa_at_strubi.ox.ac.uk
TROMBA	Giuliana	Elettra Sincrotrone Trieste	giuliana.tromba_at_elettra.trieste.it
WEIK	Martin	IBS	weik_at_ibs.fr
WILDES	Andrew	ILL	wildes_at_ill.fr
ZACCAI	Joseph	ILL	zaccai_at_ill.fr
ZATTERIN	Edoardo	ESRF	edoardo.zatterin_at_esrf.fr

INSTRUCTORS OF GRENOBLE (weeks 2, 3, 5)

SURNAME	Name	Institute	email	session
ATZORI	Cesare	ESRF	cesare.atzori_at_esrf.fr	A
AUTRAN	Pierre-Olivier	ESRF	pierre-olivier.autran_at_esrf.fr	A
BARONI	Tommaso	ESRF	tommaso.baroni_at_unifi.it	A
BARUCHEL	José	ESRF	baruchel_at_esrf.fr	A
BASU	Shibom	ESRF	shibom.basu_at_esrf.fr	B
BEAUVOIS	Ketty	CEA-IRIG-MEM	beauvois_at_ill.fr	A
BELLE	Ewen	ESRF	ewen.bellec_at_esrf.fr	A
BERROD	Quentin	CNRS / IRIG-SyMMES	quentin.berrod_at_cea.fr	A
BEUTIER	Guillaume	CNRS / SIMaP	guillaume.beutier_at_grenoble-inp.fr	A
BLANC	Nils	ESRF	nils.blanc_at_esrf.fr	A
BOSAK	Alexei	ESRF	bossak_at_esrf.fr	A
BOUNOUA	Dalila	CEA-LLB	dalila.bounoua_at_cea.fr	A
BROCHE	Ludovic	ESRF	ludovic.broche_at_esrf.fr	A
CHAHINE	Gilbert	ESRF	gilbert.chahine_at_esrf.fr	A
CHANEY	Daniel	ESRF	daniel.chaney_at_esrf.fr	A
CHUSHKIN	Yuriy	ESRF	chushkin_at_esrf.fr	A
COBESSI	DAVID	IBS	david.cobessi_at_ibs.fr	B
COLOCHO HURTARTE	Luis	ESRF	luis.colochos_at_esrf.fr	A & B
CONFALONIERI	Giorgia	ESRF	giorgia.confalonieri_at_esrf.fr	A
CUBITT	Robert	ILL	cubitt_at_ill.fr	A
DA SILVA	Julio Cesar	Institut Néel	julio-cesar.da-silva_at_neel.cnrs.fr	A
D'ACAPITO	Francesco	CNR-IOM-OGG	dacapito_at_esrf.fr	A
DE BRION	Sophie	UGA / Institut Néel	sophie.debrion_at_neel.cnrs.fr	A
DE SANCTIS	Daniele	ESRF	daniele.de_sanctis_at_esrf.fr	B
DOLLMAN	Kathleen	ESRF	kathleen.dollman_at_esrf.fr	B
ENGILBERGE	Sylvain	ESRF	sylvain.engilberge_at_esrf.fr	B
FAVIER	Adrien	CNRS	adrien.favier_at_ibs.fr	B
FAVRE-NICOLIN	Vincent	ESRF	favre_at_esrf.fr	A & B
FISCHER	Henry	ILL	fischer_at_ill.fr	A
FREIHERR VON SCHOLLEY	Gian Luca	ESRF	gian-luca.freiherr-von-scholley_at_esrf.fr	B
GAJDOS	Lukas	ILL	gajdosl_at_ill.fr	B

GIACOBBE	Carlotta	ESRF	carlotta.giacobbe_at_esrf.fr	A
GLUSHONKOV	Oleksandr	Institut de Biologie Structurale	oleksandr.glushonkov_at_ibs.fr	B
GRENDALE	Ola	ESRF	ola.grendal_at_esrf.fr	A
SURNAME	Name	Institute	email	session
GRUDININ	Sergei	CNRS	sergei.grudinin_at_univ-grenoble-alpes.fr	B
GUTFREUND	Philipp	ILL	gutfreund_at_ill.fr	A
HANFLAND	Michael	ESRF	hanfland_at_esrf.fr	A
HANSEN	Thomas	ILL	hansen_at_ill.fr	A
HENRIQUES	Margarida	Institute of Physics of the Czech Academy of Sciences	henriques_at_fzu.cz	A
HOFFMANN	Ingo	ILL	hoffmann_at_ill.fr	B
JAKATA	Kudakwashe	ESRF	kudakwashe.jakata_at_esrf.fr	B
JOLY	Yves	Institut Néel	yves.joly_at_neel.cnrs.fr	A
KANDIAH	Eaazhisai	ESRF	eaazhisai.kandiah_at_esrf.fr	B
KIEFFER	Jerome	ESRF	jerome.kieffer_at_esrf.fr	A
LAWRENCE-BRIGHT	Eleanor	ESRF	e.lawrencebright_at_esrf.fr	A
LEAKE	Steven	ESRF	leake_at_esrf.fr	A
LEVANTINO	Matteo	ESRF	matteo.levantino_at_esrf.fr	A & B
LEYNAUD	Olivier	Institut Néel	olivier.leynaud_at_neel.cnrs.fr	A
LOMACHENKO	Kirill	ESRF	lomachenko_at_esrf.fr	A
LUDWIG	Wolfgang	ESRF	wolfgang.ludwig_at_esrf.fr	A
MAJKUT	Marta	ESRF	marta.majkut_at_esrf.fr	A
MARIETTE	Céline	ESRF	celine.mariette_at_esrf.fr	A & B
MATSARSKAIA	Olga	ILL	matsarskaia_at_ill.fr	B
MEZOUAR	Mohamed	ESRF	mezouar_at_esrf.fr	A
MICHA	Jean-Sébastien	CNRS / IRIG-SyMMES	micha_at_esrf.fr	A
MOUSSAOUI	Dihia	ESRF	dihia.moussaoui_at_esrf.fr	B
NICOLAOU	Alessandro	Synchrotron SOLEIL	nicolaou_at_synchrotron-soleil.fr	A
ORLANS	Julien	ESRF	julien.orlans_at_esrf.fr	B
OTT	Frédéric	CEA-LLB	Frederic.Ott_at_cea.fr	A
PADDISON	Joseph	Oak Ridge National Laboratory	paddisonja_at_ornl.gov	A
PAKHOMOVA	Anna	ESRF	anna.pakhomova_at_esrf.fr	A
PEREZ	Olivier	CRISMAT	olivier.perez_at_ensicaen.fr	A
PERNOT	Petra	ESRF	rejma_at_esrf.fr	B
PETERS	Judith	UGA / ILL	jpeters_at_ill.fr	B

PETIT	Sylvain	CEA-LLB	sylvain.petit_at_cea.fr	A
PETŘÍČEK	Václav	Institute of Physics of the Czech Academy of Sciences	petricek_at_fzu.cz	A
SURNAME	Name	Institute	email	session
PIOVANO	Andrea	ILL	piovano_at_ill.fr	A
PIRLING	Thilo	ILL	pirling_at_ill.fr	A
POPOV	Anton	ESRF	anton.popov_at_esrf.fr	B
POREBA	Tomasz	ESRF	tomasz.poreba_at_esrf.fr	A
POUPON	Morgane	Institute of Physics of the Czech Academy of Sciences	poupon_at_fzu.cz	A
PUENTE ORENCH	Inés	INMA-CSIC / ILL	puenteorench_at_ill.fr	A
RACK	Alexander	ESRF	rack_at_esrf.fr	A
RETEGAN	Marius	ESRF	marius.retegan_at_esrf.fr	A
REYES-HERRERA	Juan	ESRF	juan.reyes-herrera_at_esrf.fr	A & B
RIEUTORD	François	Soitec	francois.rieutord_at_soitec.com	A
ROYANT	Antoine	ESRF	antoine.royant_at_esrf.fr	B
SAERBECK	Thomas	ILL	saerbeck_at_ill.fr	A
SANCATALDO	Giuseppe	University of Palermo, Italy	giuseppe.sancataldo_at_unipa.it	B
SANCHEZ DEL RIO	Manuel	ESRF	srio_at_esrf.eu	A & B
SANTONI	Gianluca	ESRF	gianluca.santoni_at_esrf.fr	B
SEGURA-RUIZ	Jaime	ESRF	jaime.segura_at_esrf.fr	A
TARDIF	Samuel	CEA-IRIG-MEM	samuel.tardif_at_cea.fr	A
THUREAU	Aurelien	Synchrotron SOLEIL	aurelien.thureau_at_synchrotron-soleil.fr	B
TOBY	Brian	Argonne National Laboratory	toby_at_anl.gov	A
TRAN CALISTE	Thu Nhi	ESRF	thu-nhi.tran-thi_at_esrf.fr	A
TULLY	Mark	ESRF	mark.tully_at_esrf.fr	B
VERONESI	Giulia	ESRF	Giulia.veronesi_at_cea.fr	A & B
VETRI	Valeria	Dipartimento di Fisica e Chimica, Università di Palermo	valeria.vetri_at_unipa.it	B
VOLTE	Alix	ESRF	alix.volte_at_esrf.fr	A & B
WEBER	Tobias	ILL	tweber_at_ill.fr	A
WEHINGER	Bjorn	ESRF	bjorn.wehinger_at_esrf.fr	A
WILHELM	Fabrice	ESRF	wilhelm_at_esrf.fr	A
WRIGHT	Jonathan	ESRF	wright_at_esrf.fr	A

ZATTERIN	Edoardo	ESRF	edoardo.zatterin_at_esrf.fr	A
----------	---------	------	-----------------------------	---

LECTURERS & INSTRUCTORS OF PARTNER SITES (week 4)

SURNAME	Name	Institute	email
ANDRZEJEWSKI	Michał	PSI	michal.andrzejewski_at_psi.ch
BORCA	Camelia	PSI	camelia.borca_at_psi.ch
BOSTEDT	Christoph	PSI	christoph.bostedt_at_psi.ch
CASATI	Nicola	PSI	nicola.casati_at_psi.ch
CLARK	Adam	PSI	adam.clark_at_psi.ch
CONSTANTINOU	Procopios	PSI	procopios.constantinou_at_psi.ch
DREISER	Jan	PSI	jan.dreiser_at_psi.ch
FERREIRA SANCHEZ	Dario	PSI	dario.ferreira_at_psi.ch
HEMBERGER	Patrick	PSI	patrick.hemberger_at_psi.ch
HUTHWELKER	Thomas	PSI	thomas.huthwelker_at_psi.ch
JURANYI	Fanni	PSI	fanni.juranyi_at_psi.ch
KAESTNER	Anders	PSI	anders.kaestner_at_psi.ch
LUETKENS	Hubertus	PSI	hubertus.luetkens_at_psi.ch
MAZZONE	Daniel	PSI	daniel.mazzone_at_psi.ch
MOCHI	Iacopo	PSI	iacopo.mochi_at_psi.ch
MUNTWILER	Matthias	PSI	matthias.muntwiler_at_psi.ch
NIEDERMAYER	Christof	PSI	christof.niedermayer_at_psi.ch
POREE	Victor	PSI	victor.poree_at_psi.ch
RAABE	Jörg	PSI	joerg.raabe_at_psi.ch
SAFONOVA	Olga	PSI	olga.safonova_at_psi.ch
SALMAN	Zaher	PSI	zaher.salman_at_psi.ch
SCHLEPÜTZ	Christian	PSI	christian.schlepuetz_at_psi.ch
SCHMELTZ	Margaux	PSI	margaux.schmeltz_at_psi.ch
SCHMITT	Thorsten	PSI	thorsten.schmitt_at_psi.ch
SCHNORR	Kirsten	PSI	kirsten.schnorr_at_psi.ch
STROCOV	Vladimir	PSI	vladimir.strokov_at_psi.ch
VOCKENHUBER	Michaela	PSI	michaela.vockenhuber_at_psi.ch
WATTS	Benjamin	PSI	benjamin.watts_at_psi.ch
ZHOU	Boyang	PSI	boyang.zhou_at_psi.ch

SURNAME	Name	Institute	email
BAUMBACH	Tilo	KIT / IPS	tilo.baumbach_at_kit.edu
BORIS	Alexander	Max Planck Institute for Solid State Research	A.Boris_at_fkf.mpg.de
BORNER	Martin	KIT / IMT	martin.boerner_at_kit.edu
BUTH	Gernot	KIT / IPS	gernot.buth_at_kit.edu
CZYZYCKI	Mateusz	KIT / LAS	mateusz.czyzycki_at_kit.edu
DANIEL	Hänschke	KIT / IPS	daniel.haenschke_at_kit.edu
DARDENNE	Kathy	KIT / INE	kathy.dardenne_at_kit.edu
FORNASIER	Heike	KIT / IMT	heike.fornasier_at_kit.edu
HAGELSTEIN	Michael	KIT / IBPT	michael.hagelstein_at_kit.edu
HAMANN	Elias	KIT / IPS	elias.hamann_at_kit.edu
KOHLER	Uwe	KIT / IMT	uwe.köhler_at_kit.edu
LAST	Arndt	KIT / IMT	arndt.last_at_kit.edu
MULLER	Anke- Susanne	KIT / IBPT	anke-susanne.mueller_at_kit.edu
PLECH	Anton	KIT / IPS	anton.plech_at_kit.edu
ROTHE	Jörg	KIT / INE	jörg.rothe_at_kit.edu
SCHUH	Marcel	KIT / IBPT	marcel.schuh_at_kit.edu
SIMON	Rolf	KIT / IPS	rolf.simon_at_kit.edu
SMALE	Nigel	KIT / IBPT	nigel.smale_at_kit.edu
VAN DE KAMP	Thomas	KIT / IPS	thomas.vandekamp_at_kit.edu
ZUBER	Marcus	KIT / IPS	marcus.zuber_at_kit.edu

SURNAME	Name	Institute	email
BORONDICS	Ferenc	SOLEIL	ferenc.borondics_at_synchrotron-soleil.fr
BRIOIS	Valérie	SOLEIL	valerie.briois_at_synchrotron-soleil.fr
BRUBACH	Jean-Blaise	SOLEIL	jean-blaise.brubach_at_synchrotron-soleil.fr
ELKAÏM	Erik	SOLEIL	erik.elkaim_at_synchrotron-soleil.fr
FONDA	Emiliano	SOLEIL	emiliano.fonda_at_synchrotron-soleil.fr
JAMME	Frédéric	SOLEIL	frederic.jamme_at_synchrotron-soleil.fr
LAULHE	Claire	SOLEIL	claire.laulhe_at_synchrotron-soleil.fr
MOCUTA	Cristian	SOLEIL	cristian.mocuta_at_synchrotron-soleil.fr
MONTAVILLE	Pierre	SOLEIL	pierre.montaville_at_synchrotron-soleil.fr
MORENO	Thierry	SOLEIL	thierry.moreno_at_synchrotron-soleil.fr
OTT	Frédéric	CEA – LLB	frederic.ott_at_cea.fr
RAVY	Sylvain	SOLEIL	sylvain.ravy_at_universite-paris-saclay.fr
REGUER	Solenn	SOLEIL	solenn.reguer_at_synchrotron-soleil.fr
RIVARD	Camille	SOLEIL	camille.rivard_at_synchrotron-soleil.fr
RUEFF	Jean-Pascal	SOLEIL	jean-pascal.rueff_at_synchrotron-soleil.fr
SANDT	Christophe	SOLEIL	christophe.sandt_at_synchrotron-soleil.fr
THUREAU	Aurélien	SOLEIL	aurelien.thureau_at_synchrotron-soleil.fr

SURNAME	Name	Institute	email
BERTRAM	Florian	DESY	florian.bertram_at_desy.de
HAAS	Sylvio	DESY	sylvio.haas_at_desy.de
HAKANPAEAE	Johanna	DESY	johanna.hakanpaeae_at_desy.de
LEUPOLD	Olaf	DESY	olaf.leupold_at_desy.de
POMPIDOR	Guillaume	DESY	guillaume.pompidor_at_desy.de
SEECK	Oliver	DESY	oliver.seeck_at_desy.de
SERGEEV	Ilya	DESY	ilya.sergeev_at_desy.de
SCHEN	Chen	DESY	chen.shen_at_desy.de
TOLKIEHN	Martin	DESY	martin.tolkiehn_at_desy.de
BRESSLER	Christian	European XFEL	christian.bressler_at_xfel.eu
CERANTOLA	Valerio	European XFEL	valerio.cerantola_at_xfel.eu
DE WIJN	Raphael	European XFEL	raphael.de.wijn_at_xfel.eu
KOLIYADU	Jayanath	European XFEL	jayanath.koliyadu_at_xfel.eu
KOUA	Faisal	European XFEL	faisal.koua_at_xfel.eu
KURTA	Ruslan	European XFEL	ruslan.kurta_at_xfel.eu
LORENZEN	Kristina	European XFEL	kristina.lorenzen_at_xfel.eu
MADSEN	Anders	European XFEL	anders.madsen_at_xfel.eu
MILNE	Christopher	European XFEL	christopher.milne_at_xfel.eu
ZASTRAU	Ulf	European XFEL	ulf.zastra_u_at_xfel.eu

LIST OF PARTICIPANTS – SESSION A

SURNAME	Name	Nationality	Laboratory	Country	E-mail
ADANAKOVA	Olga	Russian	Uppsala University, Department of Materials Science and Engineering, Solid State Physics	Sweden	olga.adanakova_at_angstrom.uu.se
AKBAR	Fahrurrozi	Indonesian	National Research and Innovation Agency Republic of Indonesia	Indonesia	fahrurrozi.akbar_at_gmail.com
ANCHIETA	Chayene	Brazilian	Paul Scherrer Institute - SLS	Switzerland	chayeneanchieta_at_gmail.com
ASIMAKOPOULOU	Eleni Myrto	Greek	Lund University	Sweden	emasimak_at_gmail.com
ATLAN	Clément	French	CEA/Grenoble, MEM-NRS	France	clement.atlan_at_esrf.fr
BALUGANI	Sofia	Italian	European Synchrotron Radiation Facility	France	sofia.balugani_at_esrf.fr
BERTELSEN	Andreas	Danish	Department of Chemistry at Aarhus University	Denmark	adb_at_chem.au.dk
BHATT	Harsh	Indian	Bhabha Atomic Research Centre / Homi Bhabha National Institute	India	harshbhatt_at_barcl.gov.in
BONNET	Clément	French	University of Montpellier, ESRF	France	clement.bonnet02_at_etu.umontpellier.fr
BOUDJEHEM	Mohamed Redhouane	Algerian	Institut Néel CNRS/UGA	France	redhouane.boudjehem_at_neel.cnrs.fr
BRANTL	Johannes	German	Technical University of Munich, Munich School of BioEngineering, Department of Physics	Germany	johannes.brantl_at_tum.de
CHRISTENSEN	Rasmus	Danish	Department of Chemistry	Denmark	rsc_at_chem.au.dk
COLALONGO	Mattia	Italian	European Synchrotron Radiation Facility	France	mattia.colalongo_at_esrf.fr
COZZOLINO	Serena	Italian	Institut Laue-Langevin, Grenoble and KTH Royal Institute of Technology	France	cozzolino_at_ill.fr
CZAMLER	Valentin	Austrian	Insitut Laue-Langevin	France	vczamlar_at_ill.fr
DERJ	Anyssa	Moroccan	CEA	France	anyssa.derj_at_cea.fr
DEWI	Sari Hasnah	Indonesian	National Nuclear Energy Agency	Indonesia	hasyarri_at_outlook.com
DOLADO FERNANDEZ	Jaime	Spanish	European Synchrotron Radiation Facility (ESRF)	France	jdolfer_at_gmail.com
DORRI	Samira	Iranian	Department of physics, Linköping University	Sweden	samira.dorri_at_liu.se
ENGLER	Thea	German	The Karlsruhe Institute of Technology	Germany	thea.engler_at_t-online.de
FAZLIC	Ida	French	European Synchrotron Radiation Facility	France	ida.fazlic_at_esrf.fr
FITZPATRICK	Maureen	Irish	European Synchrotron Radiation Facility (ESRF)	France	maureen.fitzpatrick_at_esrf.fr
FRACHET	Mehdi	French	Karlsruhe Institute of Technology(KIT), Institute for Quantum Materials and Technologies (IQMT)	Germany	mehdi.frachet_at_gmail.com

SURNAME	Name	Nationality	Laboratory	Country	E-mail
FRANSSON	Matilda	Swedish	University College London/ESRF	France	matilda.fransson_at_esrf.fr
GEERS	Madeleine	British	University of Nottingham / Institut Laue Langevin	France	geers_at_ill.fr
GIRON LANGE	Esther	Spanish	ILL (Institut Laue Langevin)	France	giron-lange_at_ill.fr
GRABIAS	Ewelina	Polish	Lublin University of Technology, Faculty of Civil Engineering and Architecture, Department of Building Materials Engineering and Geoengineering	Poland	ewelina grabias_at_gmail.com
HADDEN	Elhoucine	Tunisian	Institut Laue Langevin - ILL	France	elhoucine.hadden_at_hotmail.com
HAMID	Mouna	Belgian	KU Leuven	Belgium	mouna.hamid_at_kuleuven.be
HANSEN	Steen Hansgaard	Danish	Department of Chemistry	Denmark	steen hansgaard96_at_gmail.com
HARRUP	Anthony Albert	Mexican	The European Synchrotron	France	anthony.harrup_at_esrf.fr
HOANG	Le Phuong	Vietnamese	European XFEL	Germany	le.phuong.hoang_at_xfel.eu
HOLUB	Tamara	Ukrainian	Leibniz Institute for Solid State and Materials Research	Germany	t.holub_at_ifw-dresden.de
HUA	Weicheng	Norwegian	Norwegian University of Science and Technology	Norway	weicheng.hua_at_ntnu.no
HUMA	Kinza	Pakistani	University of Stavanger	Norway	kinza.huma_at_uis.no
IGOA SALDAÑA	Fernando	Uruguayan	Laboratory of Condensed Matter Chemistry of Paris, Sorbonne University	France	fernando.igoa_saldana_at_sorbonne-universite.fr
IRISH	Austin	American	Lund University Department of Physics Division of Synchrotron Radiation Research	Sweden	austin.irish_at_sljus.lu.se
IRRAZABAL MOREDA	Olvido	Spanish	ESRF Christian-Albrechts University, Kiel	France	olvido irrazabal_at_gmail.com
JOUSSEAUME	Thibaut	French	CEA Grenoble, IRIG/MEM	France	thibaut.jousseume_at_cea.fr
KATO	Tatsuya	Japanese	Nagoya Institute of Technology	Japan	kato.tatsuya_at_nitech.ac.jp
KICIOR	Inga	Polish	European Synchrotron Radiation Facility (ESRF)	France	inga.kicior_at_esrf.fr
Kiranjot	Kiranjot	Indian	Homi Bhabha National Institute/ Soft x-ray Applications Lab, RRCAT, Indore	India	kiran212jot_at_gmail.com
KRÁL	Petr	Czech	Department of Condensed Matter Physics, Faculty of Mathematics and Physics, Charles University	Czechia	petrkral_at_karlov.mff.cuni.cz
KULOW	Anico	German	Institut Néel	France	anico.kulow_at_neel.cnrs.fr
KUZNETSOVA	Anastasiia	Russian	Helmholtz-Zentrum Hereon	Germany	anastasiia.kuznetsova_at_hereon.de
LACMANN	Tom	German	Karlsruhe Institute of Technology, Institute for Quantum Materials and Technologies (IQMT)	Germany	tom.lacmann_at_kit.edu
LERCHE	Julie Toftelund	Danish	Department of Chemistry	Denmark	jtl_at_chem.ku.dk
LIAO	Chenyang	Chinese	INSTITUT MAX VON LAUE-PAUL LANGEVIN	France	liao_at_ill.fr
LOPES	João	Portuguese	NOVA School of Science and Technology	Portugal	jcg.lopes_at_campus.fct.unl.pt
LØRUP	Erik	Danish	Roskilde University - INM	Denmark	hillo_at_ruc.dk
LYU	Jieli	Chinese	Laboratoire de Physique des Solides, University paris saclay	France	jieli.lyu_at_u-psud.fr

SURNAME	Name	Nationality	Laboratory	Country	E-mail
MALATO PRAXEDES	Fernanda	Brazilian	Instituto de Ciencia de Los Materiales de Madrid (ICMM-CSIC)	Spain	fmpraxedes_at_gmail.com
MIROLO	Marta	Italian	ESRF	France	marta.mirolo_at_esrf.fr
MOMBRINI	Isabella	Italian	ESRF/UCL	France	isabella.mombrini_at_esrf.fr
MORENO BAYONA	Diana Alejandra	Colombian	Laboratoire Ecologie Fonctionnelle et Environnement (EcoLab)	France	diana-alejandra.moreno-bayona_at_univ-tlse3.fr
MOSZCZYŃSKA	Ida	Polish	Adam Mickiewicz University in Poznan, Department of Chemistry	Poland	ida.moszczynska_at_amu.edu.pl
NAWAZ	Noor	French	ESRF	France	noor.nawaz_at_esrf.fr
OEMRY	Ferensa	Indonesian	Research Center for Physics, National Research and Innovation Agency (BRIN)	Indonesia	ferensa.oemry_at_lipi.go.id
PARMAR	Rohan	Indian	Institut National Polytechnique de Toulouse - Laboratoire de Genie Chimie	France	rohan96_at_vt.edu
PHILIPPE	Jonas	Swiss	Universität Zürich / Paul Scherrer Institut	Switzerland	jonas.philippe_at_psi.ch
POELCHEN	Georg	German	ESRF	France	georg.poelchen_at_live.de
RAHIDE	Fatemehsadat	Iranian	Karlsruher Institut für Technologie (KIT) Institut für Angewandte Materialien (IAM-ESS)	Germany	fatemehsadat.rahide_at_kit.edu
RAJH	AVA	Slovenian	Jožef Stefan Institute	Slovenia	ava.rajh_at_ijs.si
REICH	Veronika	German	German Engineering Materials Science Centre (GEMS) at Helmholtz-Zentrum Hereon in Geesthacht outstation at Heinz-Maier-Leibnitz Zentrum (MLZ) in Garching and Christian-Albrechts-Universität zu Kiel	Germany	veronika.reich_at_hereon.de
RODRIGUEZ FERNANDEZ	Irene	Spanish	PSI	Switzerland	irene.rodriguezfer_at_gmail.com
RONOVSKY	Michal	Czech	ESRF, Structure of materials, ID31	France	michal.ronovsky_at_esrf.fr
SANNA ANGOTZI	Marco	Italian	University of Cagliari, Department of Chemical and Geological Sciences	Italy	sannamarco91_at_gmail.com
SAVATOVIC	Sara	Croatian	University of Trieste	Italy	sara.savatovic_at_gmail.com
SCHMEISSNER	Johann	Russian	Institute for Theoretical and Experimental Physics (NRC Kurchatov Institute)	Russia	vny007_at_mail.ru
SCHWAIGHOFER	Bettina	Austrian	Durham University, Institut Laue Langevin	France	schwaighofer_at_ill.fr
SEBOLD	Simon	German	Heinz Maier-Leibnitz Zentrum (MLZ)	Germany	simon.sebold_at_frm2.tum.de
SERBAN	David-Alexandru	Romanian	University of Southampton	United Kingdom	das1g13_at_soton.ac.uk
SHARMA	Shweta	Indian	Karlsruhe Institute of Technology	Germany	shweta.sharma_at_kit.edu

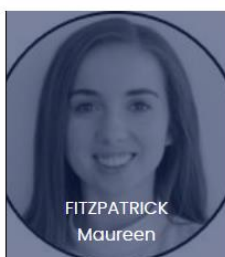
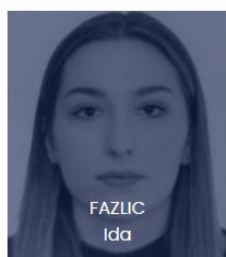
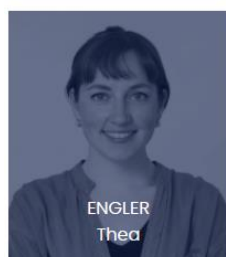
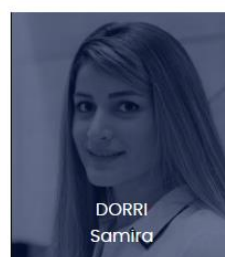
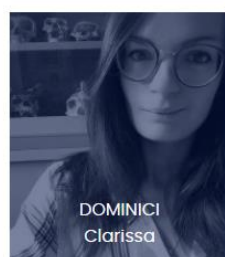
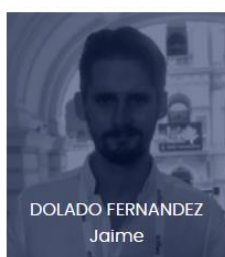
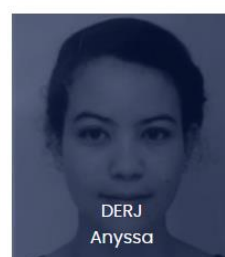
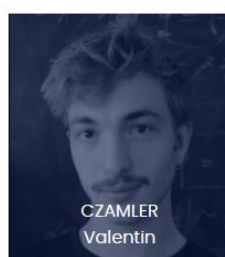
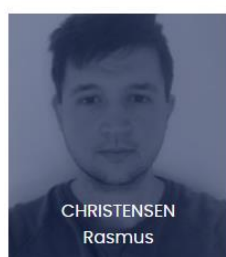
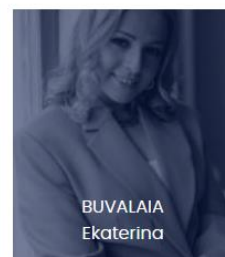
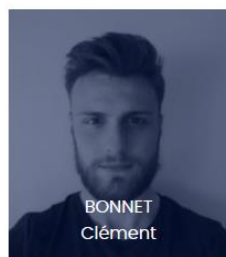
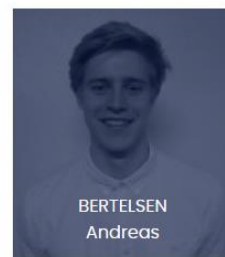
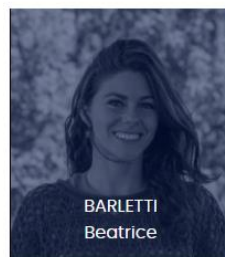
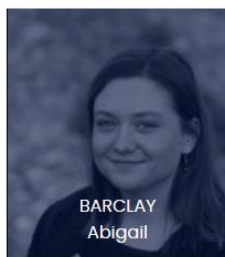
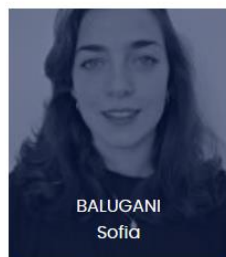
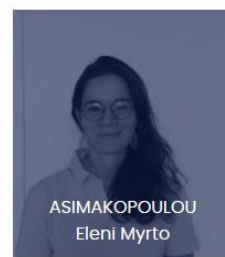
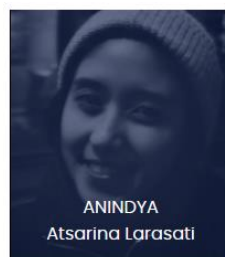
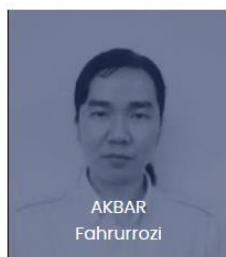
SURNAME	Name	Nationality	Laboratory	Country	E-mail
SIMONNE	David	French	Synchrotron SOLEIL / CEA	France	david.simonne_at_universite-paris-saclay.fr
SOLEMSLI	Bjørn Gading	Norwegian	University of Oslo, Department of Chemistry	Norway	b.g.solemsli_at_smn.uio.no
STRUCKA	Jergus	Slovak	Imperial College London, Plasma Physics Group	United Kingdom	jergus.strucka15_at_imperial.ac.uk
SU	Po-Hua	Taiwanese	Helmholtz Institute Ulm, group of electrochemical energy storage materials	Germany	po-hua.su_at_kit.edu
TRAUSA	Annamarija	Latvian	Laboratory of Materials Morphology and Structure Investigations, Institute of Solid States Physics	Latvia	annamarija.t_at_gmail.com
VINCI	Valentin	French	ESRF	France	valentin.vinci_at_esrf.fr
VINOGRAD	Igor	German	Karlsruhe Institute of Technology	Germany	igor.vinograd_at_kit.edu
VOLODINA	Natalia	Russian	Moscow Institute of Physics and Technology (National Research University), Laboratory of Functional Materials and Devices for Nanoelectronics	Russia	volodina.no_at_phystech.edu
VOSEGAARD	Emilie Skytte	Danish	Department of Chemistry	Denmark	emilieskytte_at_chem.au.dk
VOSTROV	Nikita	Russian	ESRF	France	nik.vostrov_at_gmail.com
WARTELLE	Alexis	French	SIMaP	France	alexis.wartelle_at_esrf.fr
WENG	Xiaorong	Chinese	CEA Grenoble	France	xiaorong.weng_at_esrf.fr
XIE	Wu	Chinese	Deutsches Elektronen-Synchrotron DESY	Germany	wu.xie_at_desy.de
YAKOVLEV	Ilya	Russian	ESRF, ID02	France	ilya.yakovlev_at_esrf.fr
YEHYA	Sarah	Lebanese	Institut Matériaux Microélectronique Nanosciences de Provence (IM2NP), Synchrotron SOLEIL, CEA Grenoble	France	sarah.yehya_at_etu.univ-amu.fr
ZHENG	Chenwei	Chinese	UCL Physics and Astronomy department, London Centre for Nanotechnology, ISIS Neutron Source, Thomas Young Centre	United Kingdom	ucapczh_at_ucl.ac.uk
ZIMMERMANN	Valentin	German	Max-Planck-Institute for Solid State Research	Germany	v.zimmermann_at_fkf.mpg.de

LIST OF PARTICIPANTS – SESSION B

SURNAME	Name	Nationality	Laboratory	Country	E-mail
ANINDYA	Atsarina Larasati	Indonesian	University of Gothenburg	Sweden	atsarina.larasati.anindya_at_gu.se
BARCLAY	Abigail	British	Niels Bohr Institute, University of Copenhagen	Denmark	abigail.barclay_at_nbi.ku.dk
BARLETTI	Beatrice	Italian	Institut Laue Langevin	France	barletti_at_ill.fr
BUVALAIA	Ekaterina	Russian	JCNS-1 Forschungszentrum Juelich	Germany	belkate94_at_gmail.com
DIEZ	Matthias Raimund	German	Chair of X-ray Microscopy	Germany	matthias.diez_at_uni-wuerzburg.de
DOMINICI	Clarissa	Italian	University of Siena, Department of Physical Science, Earth and Environment, Research Unit of Prehistory and Anthropology	Italy	clarissa.dominici_at_student.unisi.it
GUPTA	Jyoti	Indian	Bhabha Atomic Research Centre	India	jyotibaby672_at_gmail.com
IVANOVIC	Aleksandra	Swiss	University Hospital Berne, Inselspital and Paul Scherrer Institute (TOMCAT Group)	Switzerland	aleksandra.ivanovic_at_psi.ch
KABBINALE	Arpitha	Indian	University of Gothenburg	Sweden	arpitha.kabbinale_at_gu.se
LÓPEZ HERNÁNDEZ	Marcos	Spanish	Interdisciplinary Nanoscience Center, Aarhus University	Denmark	marcoslh_at_inano.au.dk
LUND	Xamuel	Danish	Institut Laue-Langevin(ILL)	France	lund_at_cbs.cnrs.fr
MELICHER	Filip	Slovak	Glycobiocchemistry group, Central European Institute of Technology, Masaryk University	Czechia	423951_at_mail.muni.cz
MEŠKOVÁ	Klaudia	Slovak	Institute of Neuroimmunology, Slovak Academy of Sciences	Slovakia	klaudia.mihalovicova_at_savba.sk
MIKHAILOVSKAIA	Alesia	Russian	Institut de Chimie et des Matériaux Paris-Est	France	alesya.mikhailovskaya_at_icmpe.cnrs.fr
MOROTTI	Ilaria	Italian	Physiolab (Department of Biology, University of Florence)	Italy	ilaria.morotti_at_unifi.it
NG	Yi Min	Malaysian	ESRF	France	yi-min.ng_at_esrf.fr
NGUYEN	Tu Quynh	Vietnamese	Institut de Biologie Structurale (IBS)	France	tu-quynh.nguyen_at_ibs.fr
NIDRICHE	Agathe	French	LiPhy Grenoble	France	nidriche_at_ill.fr
OLSSON	Martina	Swedish	Materials Physics, Chalmers University of Technology	Sweden	martina.olsson_at_chalmers.se
PATRIATI	Arum	Indonesian	Neutron Scattering Laboratory, BATAN, BRIN	Indonesia	arumpatriati_at_gmail.com
PETER	Karolina	German	Institute of Physics and Material Science, University of Natural Resources and Life Sciences, Vienna	Austria	karolina.peter_at_boku.ac.at
PLATUNOV	Mikhail	Russian	Kirensky Institute of Physics, Federal Research Center KSC SB RAS	Russia	ms-platunov_at_yandex.ru
SAKR	Charbel	Lebanese	ESRF and BOKU University	Austria	charbel.sakr_at_esrf.fr

SKOBELKINA	Anastasiia	Russian	I2BC/CEA; SOLEIL	France	anastasiia.skobelkina_at_synchrotron-soleil.fr
------------	------------	---------	------------------	--------	--

PORTRAIT GALLERY – SESSIONS A and B





GEERS
Madeleine



GIRON LANGE
Esther



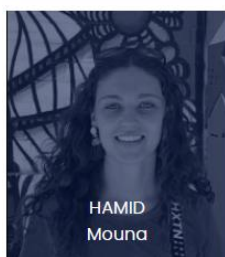
GRABIAS
Ewelina



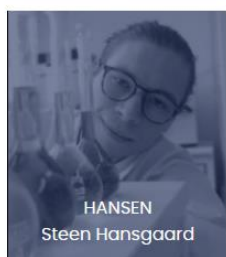
GUPTA
Jyoti



HADDEN
Elhoucine



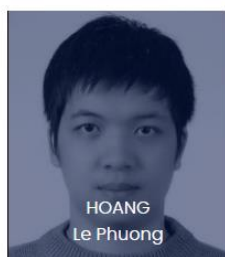
HAMID
Mouna



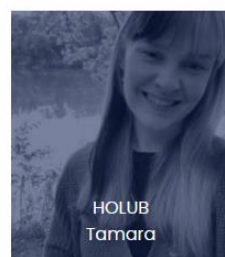
HANSEN
Steen Hansgaard



HARRUP
Anthony Albert



HOANG
Le Phuong



HOLUB
Tamara



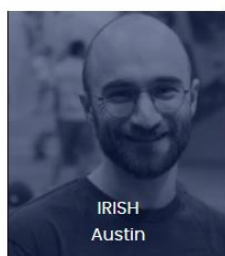
HUA
Weicheng



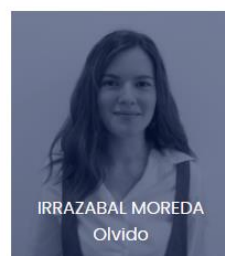
HUMA
Kinza



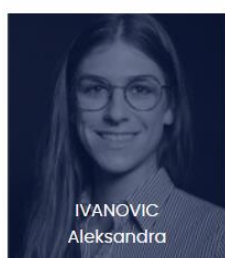
IGOA SALDAÑA
Fernando



IRISH
Austin



IRRAZABAL MOREDA
Olvido



IVANOVIC
Aleksandra



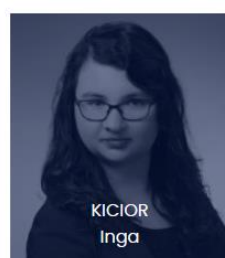
JOUSSEUME
Thibaut



KABBINALE
Arpitha



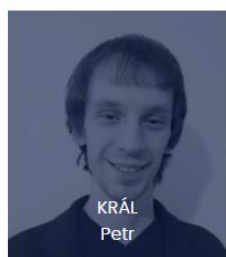
KATO
Tatsuya



KICIOR
Inga



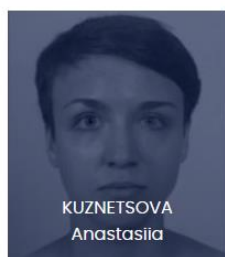
KIRANJOT
Kiranjot



KRÁL
Petr



KULOW
Anico



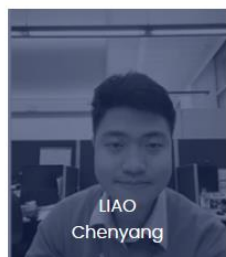
KUZNETSOVA
Anastasiia



LACMANN
Tom



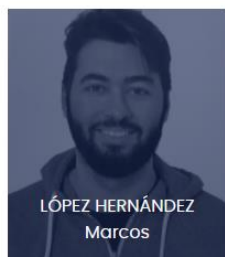
LERCHE
Julie Toftelund



LIAO
Chenyang



LOPES
João



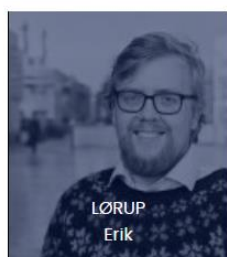
LÓPEZ HERNÁNDEZ
Marcos



LUND
Xamuel



LYU
Jieli



LØRUP
Erik



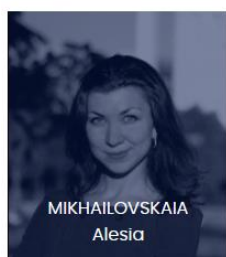
MALATO PRAXEDES
Fernanda



MELICHER
Filip



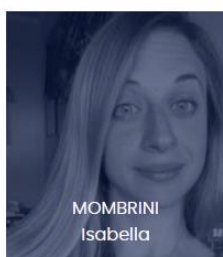
MEŠKOVÁ
Klaudia



MIKHAILOVSKAIA
Alesia



MIROLO
Marta



MOMBRINI
Isabella



MORENO BAYONA
Diana Alejandra



MOROTTI
Ilaria



MOSZCZYŃSKA
Ida



NAWAZ
Noor



NG
Yi Min



NGUYEN
Tu Quynh



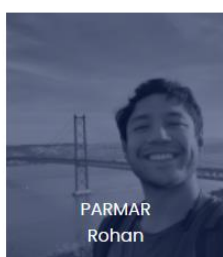
NIDRICHE
Agathe



OEMRY
Ferensa



OLSSON
Martina



PARMAR
Rohan



PATRIATI
Arum



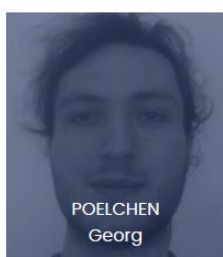
PETER
Karolina



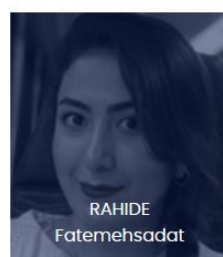
PHILIPPE
Jonas



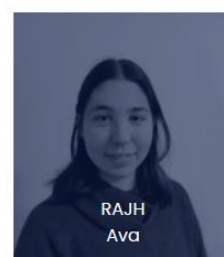
PLATUNOV
Mikhail



POELCHEN
Georg



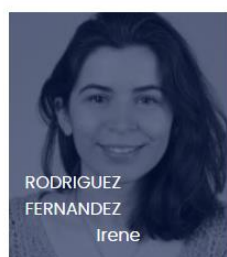
RAHIDE
Fatemehsadat



RAJH
Ava



REICH
Veronika



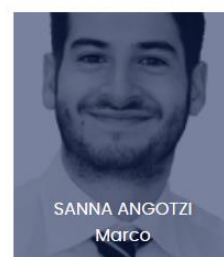
RODRIGUEZ
FERNANDEZ
Irene



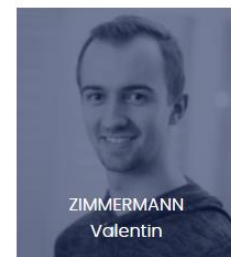
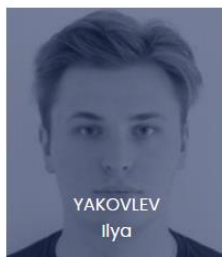
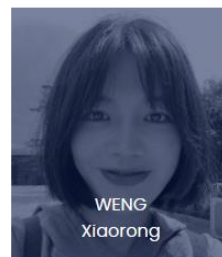
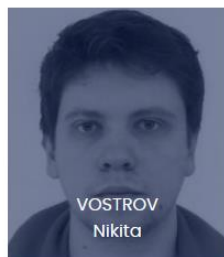
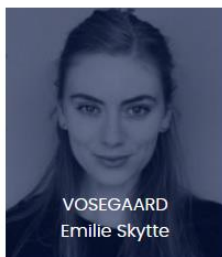
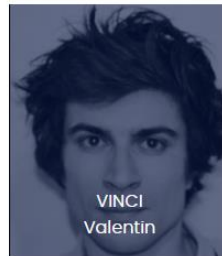
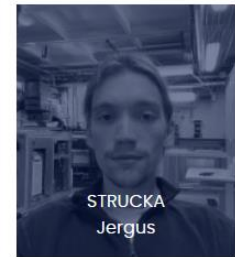
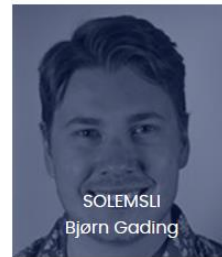
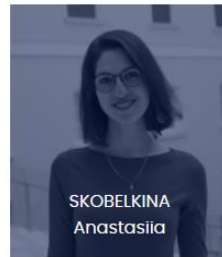
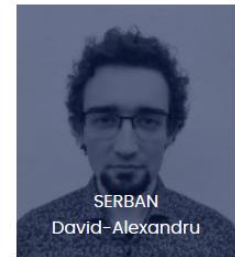
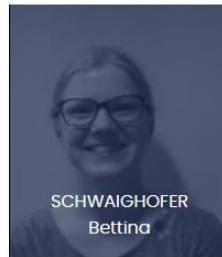
RONOVSKY
Michal



SAKR
Charbel



SANNA ANGOTZI
Marco



HERCULES

European School

Contact / Help: [hercules at hercules-school.eu](mailto:hercules@hercules-school.eu)

Web site: <https://hercules-school.eu/>