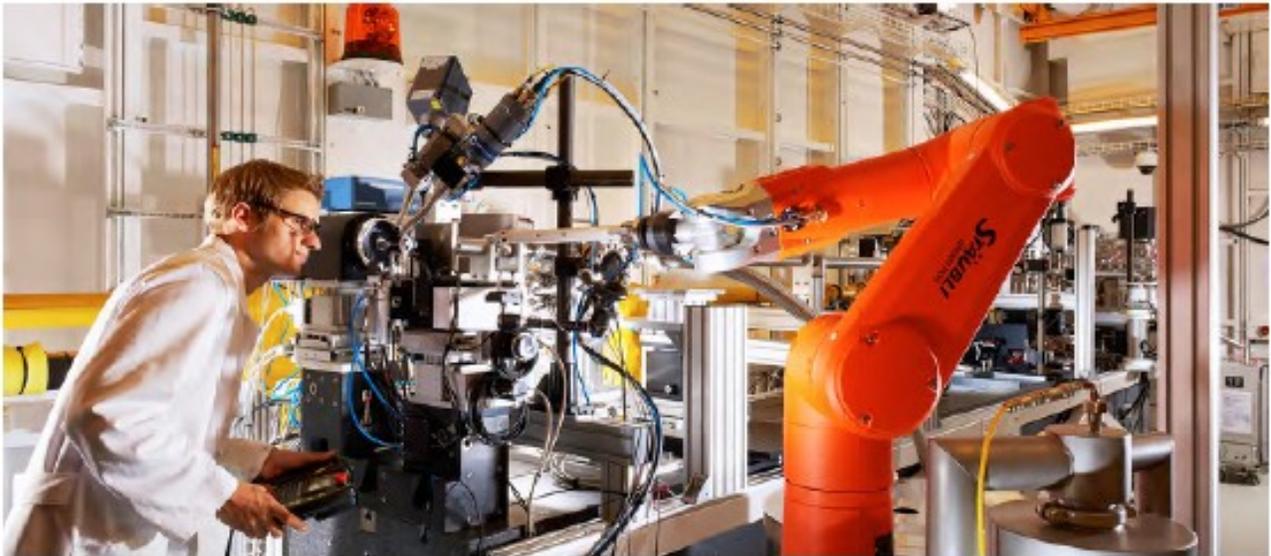


# How to Perform Your Experiment at P11



This tutorial should help you to perform your experiment at beamline  
P11@PETRAIII.

More detailed information on the technical parameters of P11 and the research  
conducted at our beamline can be found at our webpage:

[https://photon-  
science.desy.de/facilities/petra\\_iii/beamlines/p11\\_bio\\_imaging\\_and\\_diffraction/](https://photon-science.desy.de/facilities/petra_iii/beamlines/p11_bio_imaging_and_diffraction/)

If you have further questions please do not hesitate to contact your P11 staff:

Anja (phone: +49 40 8998 91775; email: [anja.burkhardt@desy.de](mailto:anja.burkhardt@desy.de))

Eva (phone: +49 40 8998 96105; email: [eva.crosas@desy.de](mailto:eva.crosas@desy.de))

Sofiane (phone: +49 40 8998 94620; email: [sofiane.saouane@desy.de](mailto:sofiane.saouane@desy.de))

Johanna (phone: +49 40 8998 95756; email: [johanna.hakanpaeae@desy.de](mailto:johanna.hakanpaeae@desy.de))

## Checklist

This list contains important items which need to be addressed before you can start your experiment at P11:

- 1) Declaration of substances submitted
- 2) All participants of the experiment registered
- 3) Safety training passed
- 4) Certificate (printout) from the safety training sent to the Users' Office
- 5) Local contact informed about arrival at P11
- 6) DACHS card (badge) picked up
- 7) Beam shutter permission obtained

### Status


# I. Before Your Arrival

## I.1. DOOR Registration

You are only allowed to apply for beamtime and perform your experiment at DESY with a valid DOOR account. Please register at DOOR (DESY Online Office for Research with Photons) via <https://door.desy.de/door/index.php> as follows:

- Click on 'New User'
- Complete the registration form (Fields marked with (\*) are mandatory).
- Select your institute from the drop-down list. If you don't find your institute in the database please contact the Photon Science Users' Office via [photon-science@desy.de](mailto:photon-science@desy.de).
- Submit the completed form

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DOOR HOME | CONTACT

**DOOR**  
DESY Online Office for Research with Photons

HOME

- New User
- Lost Password
- Registered User

**NEXT DEADLINES**

Proposal Submission FLASH 01-Apr-2015

The Call for Proposals for FLASH experiments during the period January to June 2016 is open.

Due to OMI constructions related to the PETRA III Extension no regular beamtime will be available at PETRA III from 3 February 2014 until 27 April 2015.

Welcome to DOOR, the DESY Online Office for Research with Photons.

After registration, you may use this system to submit research proposals or beamtime applications, and to complete all administrative steps required prior and after your experiment (e.g. online safety training, submission of declaration of substances, registration of participants, travel reimbursement, reports, registration of publications).

Please do not hesitate to [contact us](#) in case you have further questions or if you encounter any problems using DOOR.

**Registered DOOR user**  
Log on using your DOOR user name and password or your Umbrella credentials.

**Forgotten password**  
If you do not remember your DOOR user name and/or password, your log on information will be sent to your previously registered e-mail address.

**New DOOR user**  
To obtain a DOOR user name and password, please register here.  
Users with an existing Umbrella account might first log on at Umbrella [here](#).  
Or you might set up an Umbrella account before registering [here](#).



# DOOR

DESY Online Office for Research with Photons

- HOME
- New User
- Lost Password
- Registered User

## DOOR USER REGISTRATION

### REGISTER NEW DOOR USER

In order to be able to submit proposals for the DESY light sources, you must first register to DOOR. Please enter your desired user name, your e-mail address and other required details in the form below. After submitting the form, an e-mail will be sent to the given address for confirmation.

DOOR user name (\*)

Password (\*)

Confirm password (\*)

E-mail address (\*)

Institute (\*)  **Select your institute with the select but**

Department

Address

### AGREEMENT TO PERSONAL DATA UTILIZATION, PEACEFUL RESEARCH, AND TERMS AND CONDITIONS (\*)

1. I agree that my personal data are stored in the DOOR database and forwarded to the central person database at DESY for internal operational and administrative purposes. If necessary, the data may be forwarded to other DESY information systems (e.g. access control systems).
2. I assure that all my research activities at DESY Photon Science are conducted exclusively for peaceful purposes and in accordance with the generally accepted rules for good scientific practice.
3. I confirm that I have read and accept the [Terms and Conditions for Commercial User Access](#) (applicable to commercial users) or [Terms and Conditions for Non-Proprietary User Access](#) (applicable to non-commercial scientific users).

(\*) these fields are mandatory



## INSTITUTES

Institute/Department	Country
<a href="#">Select</a> Max-Planck-Gesellschaft Max Planck Advanced Study Group at Center for Free Electron Laser Science (CFEL)	Germany
<a href="#">Select</a> Max-Planck-Gesellschaft Max Planck Institute for Evolutionary Anthropology Max Planck Weizmann Center for Integrative Archaeology and Anthropology	Germany
<a href="#">Select</a> Universitaet Hamburg Max Planck Group for Structural Dynamics (CFEL)	Germany

## 1.2. Beamtime Application

Beamtime applications need to be submitted via DOOR at least 4 weeks before you wish to perform your experiment at P11. This applies also for the 2nd, 3rd and 4th beamtime in the framework of a long-term proposal (the beamtime application for the 1st beamtime is submitted together with the proposal).

Beamtime applications for regular DOOR proposals are submitted together with the proposal. Please keep in mind, that according to the current DESY guidelines for PETRA III each regular DOOR proposal is valid for one beamtime at one beamline only (for more information please check here:

[http://photon-science.desy.de/users\\_area/users\\_guide/index\\_eng.html](http://photon-science.desy.de/users_area/users_guide/index_eng.html)).

Shift schedule: Morning shift: 09:00 – 17:00  
Afternoon shift: 17:00 – 01:00  
Night shift: 01:00 – 09:00

Due to the service shifts on Wednesday the night shift from Tuesday to Wednesday already ends at 7:00. This also applies to night shifts preceding shutdowns.

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### DOOR

DESY Online Office for Research with Photons

**GENERAL USER**

- » New Proposal
- » Edit Proposals
- » Declaration of Substances
- » Register Participants
- » Online Safety Training (requires Flash)
- » User Feedback
- » Experimental Reports
- » User Infos
- » Log off

GENERAL USER	
Full name	Dr. Anja Burkhardt
DOOR user name	burkhardt
Umbrella user name	DOOR account not linked with an Umbrella account

**PROPOSALS - BEAMTIME APPLICATIONS - EXPERIMENT SPECIFICATIONS**

**Submit a new proposal**  
New proposals may be submitted here. If you leave DOOR before completing the submission, your entries are saved and may be edited and completed later (see below).

**Edit/Delete a partially completed proposal**  
If you have not completed the submission procedure (see above), you may edit/complete/delete your entries here. Once a proposal is submitted, it cannot be modified or deleted by yourself. In this case you need to contact the users office.

**View your proposal(s)**  
Proposer or co-proposers may view the pdf-version of their proposal(s).

**Follow-up applications for beamtime for a PETRA III long-term project**  
If you have a valid PETRA III long-term project, you may apply for beamtime here. Please note: Applications may be submitted only during calls for long-term projects!

**Confirm FLASH application for beamtime**  
If your FLASH proposal has been accepted, please confirm your application for beamtime here.

**Submission of experiment specifications for additional proposal types at PETRA III/FLASH**  
Submission of experiment specification is required for

- Commercial/Industrial proposals
- NFFA proposals
- Cooperation projects with MPG and Helmholtz Groups

Experiment specifications related to one of these proposal types can be submitted throughout the year.



## DOOR

DESY Online Office for Research with Photons

- DESY RESEARCH
- Declaration of Substances
- Use of Chemistry Laboratory
- Register Participants
- Register your Publications
- Log off

### APPLICATION FOR BEAMTIME

#### REQUIRED BEAMLINE (HELP ON BEAMLINES: PETRA III BEAMLINES)

Experimental station assigned	PETRA III: P11
Beamline setup/instrument (*)	Crystallography (1-axis goniostat) ▼

#### GENERAL INFORMATION

Number of shifts (8h) required (*)	<input type="text"/>
Photon energy/energies (*)	<input type="text"/>
Beam spot size on sample (*)	<input type="text"/>
Filling mode (*)	<input type="radio"/> 40 bunches <input type="radio"/> 60 bunches <input type="radio"/> multi bunches <input checked="" type="radio"/> any

#### PREFERRED DATES (FOR BEAMTIME BETWEEN JULY AND DECEMBER 2016)

Preferred start date	<input type="text"/>
Unacceptable dates	<input type="text"/>

#### SELECT DEVICES

##### DETECTORS (\*)

Pilatus 6M (2463x2527 pixels, 172x172µm <sup>2</sup> )	<input type="radio"/> Yes <input checked="" type="radio"/> No
Vortex EM Si drift detector	<input type="radio"/> Yes <input checked="" type="radio"/> No

##### EQUIPMENT (\*)

Sample changing robot (uni-puck format)	<input type="radio"/> Yes <input checked="" type="radio"/> No
---	---

#### ACCESS TO DESY NANOLAB

DESY Nanolab access (*)	- Select one - ▼
-------------------------	------------------

#### OPTIONAL ADDITIONAL MESSAGE

(\*) these fields are mandatory



Complete the application form and submit it (All fields marked with (\*) are mandatory.).

## 1.3. Declaration of Substances

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DOOR HOME | ROLE SELECTION | CONTACT

### DOOR

DESY Online Office for Research with Photons

**GENERAL USER**

- New Proposal
- Edit Proposals
- Declaration of Substances**
- Register Participants
- Online Safety Training (requires Flash)
- User Feedback
- Experimental Reports
- User Infos
- Log off

**GENERAL USER**

Full name: Dr. Anja Burkhardt  
DOOR user name: burkhardt  
Umbrella user name: DOOR account not linked with an Umbrella account

**PROPOSALS - BEAMTIME APPLICATIONS - EXPERIMENT SPECIFICATIONS**

**Submit a new proposal**  
New proposals may be submitted here. If you leave DOOR before completing the submission, your entries are saved and may be edited and completed later (see below).

**Edit/Delete a partially completed proposal**  
If you have not completed the submission procedure (see above), you may edit/complete/delete your entries here. Once a proposal is submitted, it cannot be modified or deleted by yourself. In this case you need to contact the users office.

**View your proposa(s)**  
Proposer or co-proposers may view the pdf-version of their proposal(s).

**Follow-up applications for beamtime for a PETRA III long-term project**  
If you have a valid PETRA III long-term project, you may apply for beamtime here. Please note: Applications may be submitted only during calls for long-term projects!

**Confirm FLASH application for beamtime**  
If your FLASH proposal has been accepted, please confirm your application for beamtime here.

**Submission of experiment specifications for additional proposal types at PETRA III/FLASH**  
Submission of experiment specification is required for  
- Commercial/Industrial proposals  
- NFFA proposals  
- Cooperation projects with MPG and Helmholtz Groups  
Experiment specifications related to one of these proposal types can be submitted throughout the year.

### DOOR

DESY Online Office for Research with Photons

**GENERAL USER**

- New Proposal
- Edit Proposals
- Declaration of Substances**
- Register Participants
- Online Safety Training
- User Feedback
- User Infos
- Log off

**DECLARATION OF SUBSTANCES**

**LIST OF SCHEDULED SHIFTS WITHOUT DECLARATION**

	Start	End	Proposal	Beamline	Shifts
Declaration	01-Oct-2015	05-Oct-2015	C-20010001	P11	12
Declaration	17-Sep-2015	21-Sep-2015	H-20010012	P11	12
Declaration	14-Aug-2015	17-Aug-2015	H-20010012	P11	9
Declaration	27-Apr-2015	01-May-2015	C-20010001	P11	9

**DECLARATION OF SUBSTANCES FOR CURRENT BEAMTIMES**

No declarations so far!

**LIST OF SCHEDULED SHIFTS WITH DECLARATION**

You do not have any scheduled shifts with declaration!

[MAIN](#) | [MANAGE FAVORITE SUBSTANCES](#)

Fill in the mandatory fields (marked with **(\*)**) and submit the completed form. To enter a list of protein crystals in the declaration form you may proceed as follows:

- Click on 'Add' in the 'Substance' menu
- Search for 'protein crystals' in the data base
- Determine the safety category of your samples and select the corresponding 'protein crystal' entry.

<b>Entry</b>	<b>Safety Category</b>
Protein crystals	Harmless, non-toxic, non-infectious
Protein crystals Inf.	Infectious. These are proteins which need to be classified as a biological agent according to the BioStoffV e.g. agents associated with transmissible spongiform encephalopathy, such as prions.
Protein crystals toxic	Toxic

In case your sample does not fit to any of the available entries please create a new entry.

d) Specify the number of protein crystals you are going to measure in the 'Amount and remarks' field.

e) Upload a PDF document containing a list of all your samples in the 'Safety concept' menu. Please refer to this detailed list in the 'Amount and remarks' field via e.g. 'details see safety concept'.

Please indicate also if any laboratory, gases or lasers are needed for your experiment. Please note that "chemistry laboratory" corresponds to the general chemistry lab at PETRA III (L031/032) and does NOT stand for the P11 user lab (L047). The latter can be accessed without further registration by every P11 user who has passed the corresponding safety training (see section 1.5).

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A Research Centre of the Helmholtz Association

DOOR HOME | ROLE SELECTION | CONTACT

**DOOR**  
DESY Online Office for Research with Photons

GENERAL USER  

- New Proposal
- Edit Proposals
- Declaration of Substances
- Register Participants
- Online Safety Training
- User Feedback
- User Info
- Log off

**SAFETY ASPECTS FOR BEAMTIME AT BEAMLINE P11  
(01-OCT-2015 TO 05-OCT-2015)**

DECLARATION OF SUBSTANCES	REGISTRATION FOR CHEMISTRY LABORATORY	BIO SAFETY REGISTRATION	LASER SAFETY REGISTRATION
<b>GENERAL INFORMATION</b>			
Project Number	C-20110001		
Principal Investigator	Dr. Anja Burkhardt		
Project Leader			
Beamline	P11		
Startdate	01-Oct-2015		
Enddate	05-Oct-2015		
<b>REGISTRATION DATES</b>			
Startdate (*)	01/10/2015	SELECT (dd/mm/yyyy)	
Enddate (*)	05/10/2015	SELECT (dd/mm/yyyy)	
<b>SUBSTANCES (SELECT ALL SUBSTANCES TO BE USED AT THE EXPERIMENT, EXCEPT BIOLOGICAL AGENTS) (*)</b>			
Substance	Protein crystals	SELECT REMOVE	Amount (and remarks) 50 crystals
Substance		SELECT REMOVE	Amount (and remarks)
Substance		SELECT REMOVE	Amount (and remarks)
Substance		SELECT REMOVE	Amount (and remarks)
Substance		SELECT REMOVE	Amount (and remarks)
Substance		SELECT REMOVE	Amount (and remarks)
Substance		SELECT REMOVE	Amount (and remarks)

**SPECIAL REQUIREMENTS**

Use of chemistry laboratory (\*) - Select one -  
 Use of biological agents (at beamline or in S1 bio laboratory) (\*) - Select one -  
 Use of gases (\*) - Select one -  
 Use of own lasers (\*) - Select one -

---

**UPLOAD SAFETY CONCEPT (DETAILS ON EXPERIMENTAL SETUP INCLUDING DIMENSIONS, SLING POINTS ETC. FOR TRANSPORT)**

Safety concept

---

**LIST OF HAZARDOUS EQUIPMENT (E.G. OVENS, PRESSURE CELLS) TO BE USED AT THE EXPERIMENT**

This is a complete list of all substances, their properties and of all hazardous equipment. The equipment complies to European directives and standards and is controlled regularly. I bind myself to follow the required safety procedures and to inform my co-workers. I hereby absolve DESY for any damage or injury resulting from my failure to follow the safety procedures.

Accept (\*) (\*) these fields are mandatory

**ADD SUBSTANCE**

	Substance	Aggregate	CAS no.
Select	Protein crystals	solid/piece(s)	--
Select	Protein crystals Int.	solid/piece(s)	--

If you cannot find a substance, click [here](#) to add it manually

If you are frequently visiting P11 and are using the same chemicals or biological agents for every experiment you might want to create a list of favorite substances.

**DOOR**  
DESY Online Office for Research with Protons

**GENERAL USER**

- New Proposal
- Edit Proposals
- Declaration of Substances
- Register Participants
- Online Safety Training
- User Feedback
- User Infos
- Log off

**DECLARATION OF SUBSTANCES**

LIST OF SCHEDULED SHIFTS WITHOUT DECLARATION						
	start	End	Proposal	Beamline	shifts	
Declaration	01-Oct-2015	05-Oct-2015	C-20010001	P11	12	
Declaration	17-Sep-2015	21-Sep-2015	H-20010012	P11	12	
Declaration	14-Aug-2015	17-Aug-2015	H-20010012	P11	9	
Declaration	27-Apr-2015	01-May-2015	C-20010001	P11	9	

**DECLARATION OF SUBSTANCES FOR CURRENT BEAMTIMES**

No declarations so far!

**LIST OF SCHEDULED SHIFTS WITH DECLARATION**

You do not have any scheduled shifts with declaration!



## DOOR

DESY Online Office for Research with Photons

- GENERAL USER
- » New Proposal
- » Edit Proposals
- » Declaration of Substances
- » Register Participants
- » Online Safety Training
- » User Feedback
- » User Infos
- » Log off

**SAFETY ASPECTS FOR BEAMTIME AT BEAMLINE P11**  
(01-OCT-2015 TO 05-OCT-2015)

DECLARATION OF SUBSTANCES	REGISTRATION FOR CHEMISTRY LABORATORY	BIO SAFETY REGISTRATION	LASER SAFETY REGISTRATION	
SELECT SUBSTANCES FROM YOUR FAVORITES LIST TO ADD THEM TO THE DECLARATION OF SUBSTANCES. MORE SUBSTANCES CAN BE ADDED IN THE NEXT STEP.				
LIST OF SUBSTANCES MARKED AS FAVORITES				
Selection	Substance	Symbol/Formula	CA# no.	Data sheet
<input type="checkbox"/>	Acetic acid	CH3COOH	64-19-7	<a href="#">view</a>
<input type="checkbox"/>	Hydrochloric acid	HCl	7647-01-0	<a href="#">view</a>
<input type="checkbox"/>	Protein crystals		--	-
<input type="checkbox"/>	Sodium hydroxide	NaOH	1310-73-2	<a href="#">view</a>

MAIN PROCEED WITH DECLARATION MANAGE FAVORITES LIST

## 1.4. Register Participants

Register all persons participating in your experiment. This also includes the registration for the on-site safety training. Only people registered in DOOR can be added to the list of participants.



## DOOR

DESY Online Office for Research with Photons

- GENERAL USER
- » New Proposal
- » Edit Proposals
- » Declaration of Substances
- » Register Participants
- » Online Safety Training (requires Flash)
- » User Feedback
- » Experimental Reports
- » User Infos
- » Log off

GENERAL USER	
Full name	Dr. Anja Burkhardt
DOOR user name	burkhardt
Umbrella user name	DOOR account not linked with an Umbrella account

**PROPOSALS - BEAMTIME APPLICATIONS - EXPERIMENT SPECIFICATIONS**

**Submit a new proposal**  
 New proposals may be submitted here. If you leave DOOR before completing the submission, your entries are saved and may be edited and completed later (see below).

**Edit/Delete a partially completed proposal**  
 If you have not completed the submission procedure (see above), you may edit/complete/delete your entries here. Once a proposal is submitted, it cannot be modified or deleted by yourself. In this case you need to contact the users office.

**View your proposa(s)**  
 Proposer or co-proposers may view the pdf-version of their proposal(s).

**Follow-up applications for beamtime for a PETRA III long-term project**  
 If you have a valid PETRA III long-term project, you may apply for beamtime here. Please note: Applications may be submitted only during calls for long-term projects!

**Confirm FLASH application for beamtime**  
 If your FLASH proposal has been accepted, please confirm your application for beamtime here.

**Submission of experiment specifications for additional proposal types at PETRA III/FLASH**  
 Submission of experiment specification is required for  
 - Commercial/Industrial proposals  
 - NFFA proposals  
 - Cooperation projects with MPG and Helmholtz Groups  
 Experiment specifications related to one of these proposal types can be submitted throughout the year.



## DOOR

DESY Online Office for Research with Photons

### GENERAL USER

- New Proposal
- Edit Proposals
- Declaration of Substances
- Register Participants
- Online Safety Training
- User Feedback
- User Info
- Log off

### REGISTRATION OF PARTICIPANTS

#### LIST OF SCHEDULED SHIFTS WITHOUT REGISTRATIONS

	Start	End	Proposal	Beamline	Shifts
Register	01-Oct-2015	05-Oct-2015	C-20010001	P11	12
Register	17-Sep-2015	21-Sep-2015	H-20010012	P11	12
Register	14-Aug-2015	17-Aug-2015	H-20010012	P11	9
Register	27-Apr-2015	01-May-2015	C-20010001	P11	9

#### REGISTRATIONS OF PARTICIPANTS FOR CURRENT BEAMTIMES

No registrations so far!



## DOOR

DESY Online Office for Research with Photons

### GENERAL USER

- New Proposal
- Edit Proposals
- Declaration of Substances
- Register Participants
- Online Safety Training
- User Feedback
- User Info
- Log off

### REGISTRATION OF PARTICIPANTS

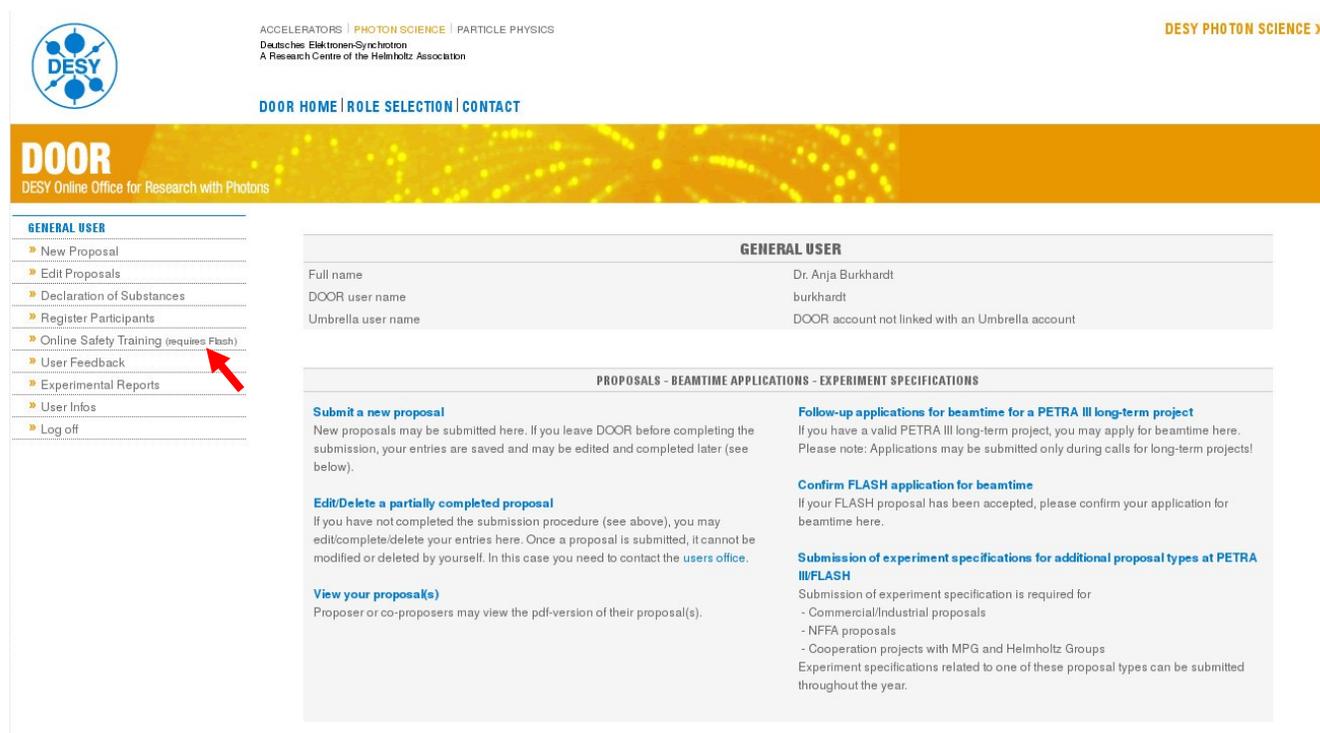
#### GENERAL INFORMATION

PI	Dr. Anja Burkhardt
Beamline	P11
Startdate	01-Oct-2015
Enddate	05-Oct-2015

#### EXPERIMENTERS AT THE BEAMLING

<input type="text" value="Dr. Anja Burkhardt"/>	<input type="button" value="SELECT"/>	<input type="button" value="REMOVE"/>
<input type="text"/>	<input type="button" value="SELECT"/>	<input type="button" value="REMOVE"/>
<input type="text"/>	<input type="button" value="SELECT"/>	<input type="button" value="REMOVE"/>
<input type="text"/>	<input type="button" value="SELECT"/>	<input type="button" value="REMOVE"/>
<input type="text"/>	<input type="button" value="SELECT"/>	<input type="button" value="REMOVE"/>

## 1.5. Online Safety Training



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### DOOR

DESY Online Office for Research with Photons

**GENERAL USER**

- » New Proposal
- » Edit Proposals
- » Declaration of Substances
- » Register Participants
- » Online Safety Training (requires Flash)
- » User Feedback
- » Experimental Reports
- » User Infos
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GENERAL USER	
Full name	Dr. Anja Burkhardt
DOOR user name	burkhardt
Umbrella user name	DOOR account not linked with an Umbrella account

**PROPOSALS - BEAMTIME APPLICATIONS - EXPERIMENT SPECIFICATIONS**

**Submit a new proposal**  
New proposals may be submitted here. If you leave DOOR before completing the submission, your entries are saved and may be edited and completed later (see below).

**Edit/Delete a partially completed proposal**  
If you have not completed the submission procedure (see above), you may edit/complete/delete your entries here. Once a proposal is submitted, it cannot be modified or deleted by yourself. In this case you need to contact the [users office](#).

**View your proposa(s)**  
Proposer or co-proposers may view the pdf-version of their proposal(s).

**Follow-up applications for beamtime for a PETRA III long-term project**  
If you have a valid PETRA III long-term project, you may apply for beamtime here. Please note: Applications may be submitted only during calls for long-term projects!

**Confirm FLASH application for beamtime**  
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**Submission of experiment specifications for additional proposal types at PETRA III/FLASH**  
Submission of experiment specification is required for

- Commercial/Industrial proposals
- NFFA proposals
- Cooperation projects with MPG and Helmholtz Groups

Experiment specifications related to one of these proposal types can be submitted throughout the year.

You are only allowed to perform your experiment at DESY if you obtained a valid and appropriate instruction. The online safety training consists of different modules and takes approx. 20 to 30 minutes, depending on your activities at P11. In order to get access to the beamline you need at least to pass the 'Basic-Instructions' and 'PETRA III' part.

Please select additional modules corresponding to your requirements:

- 'Biological agents' for access to the P11 user lab (S2 safety level, L047).
  - 'Liquid nitrogen' for working with liquid nitrogen, e.g. flash-freezing of protein crystals
- etc.

After you have completed the online safety training please send your signed safety certificate to the Photon Science Users' Office (preferably by fax +49 40 8998 4475).

Only after activating your signed safety certificate in the HASYLAB users' office the successfully completed safety instructions will be valid.



Welcome Dr. Anja Burkhardt  
Please select your activities

Basic instructions <input checked="" type="checkbox"/>	FLASH <input type="checkbox"/>	PETRA III <input checked="" type="checkbox"/>	Chemistry lab <input checked="" type="checkbox"/>
Mechanicals <input type="checkbox"/>	Laser <input checked="" type="checkbox"/>	Strong magnetic fields <input type="checkbox"/>	Gases <input checked="" type="checkbox"/>
Liquid nitrogen <input checked="" type="checkbox"/>	Liquid helium <input type="checkbox"/>	Office work <input type="checkbox"/>	Radioactive sources <input type="checkbox"/>
X-Ray generators <input type="checkbox"/>	Biological agents <input checked="" type="checkbox"/>		

next >



Personal training overview  
Dr. Anja Burkhardt



<b>Basic instructions</b> Basic instructions accomplished at: 18.02.2015 - valid until: 18.02.2016 ✓ <input type="checkbox"/> 10 min	<b>PETRA III</b> PETRA III accomplished at: 18.02.2015 - valid until: 18.02.2016 ✓ <input type="checkbox"/> 5 min
<b>Chemistry lab</b> Conduct of experiments accomplished at: 21.08.2014 - valid until: 21.08.2015 ✓ <input type="checkbox"/> 4 min	Photon Science experiments accomplished at: 18.02.2015 - valid until: 18.02.2016 ✓ <input type="checkbox"/> 5 min
<b>Gases</b> Gases accomplished at: 18.02.2015 - valid until: 18.02.2016 ✓ <input type="checkbox"/> 3 min	Radiation protection accomplished at: 18.02.2015 - valid until: 18.02.2016 ✓ <input type="checkbox"/> 5 min
<b>Biological agents</b> Biological agents ✓ <input type="checkbox"/>	More information accomplished at: 18.02.2015 - valid until: 18.02.2016 ✓ <input type="checkbox"/> 5 min
	<b>Laser</b> Working with lasers accomplished at: 21.08.2014 - valid until: 21.08.2015 ✓ <input type="checkbox"/> 3 min

< activities

print certificate

## *1.6. Requirements for biological samples (no protein crystals)*

Working with biological agents categorized as biosafety level 2 is possible in the P11 laboratory. The online safety module "Biological agents" must be completed. All biological agents must be declared in DOOR: "Registration of biological agents". If you have special requirements (microscope, cell incubator, etc.) please contact the beamline staff beforehand. An second biosafety level 2 laboratory with additional equipment is available on request. Please contact the P11 beamline staff beforehand.

## *1.7. Accommodation*

Accommodation is available at the DESY guesthouse. You can either send a request via DOOR or by contacting the guesthouse via [http://guest-services.desy.de/hostel\\_in\\_hamburg/hostel%27s\\_info/](http://guest-services.desy.de/hostel_in_hamburg/hostel%27s_info/).

Check-in time is from 14:00 onwards. Keys for the Hostel rooms may be collected from, or returned to, the Hostel Office (Mon-Fri 9:00 - 13:00) or the DESY Main Gatehouse, Notkestrasse (Mon-Fri 14:00 -9:00; weekends and public holidays: 24 h a day).

## *1.8. Dewar Shipping*

If you are planning to ship your Dewar to P11 please get in touch with us via [p11beamline@desy.de](mailto:p11beamline@desy.de) beforehand and provide us with the name of the shipping company and the tracking number.

### **a) General**

1) Please empty the remaining liquid nitrogen completely, once the absorbent material within the Dewar is soaked. This will allow the shipment without declaring it as "Dangerous Goods". It is recommended to use cable ties to prevent unauthorized people from opening your Dewar.

2) Please schedule at least 3 working days between the day of dispatch and the start of your experiment at P11. Please arrange the delivery and pick-up of your shipments during standard working hours (Mo - Fr, 08:00 - 18:30). Otherwise we cannot guarantee a proper sample cooling as well as a secure arrival of your shipment at the beamline in time. On working days the P11 staff will take care of the Dewar and immediately refill it with liquid nitrogen once it has arrived at the beamline. Shipments will not be accepted on weekends and public holidays.

3) Please stick a label with “Priorität geforene Proben, PETRA III Bio Sample c/o DESY” on the outside of your package. In addition, we recommend to label your dry shipper with clearly visible safety and handling declarations, e.g. arrows pointing up or ‘Keep upright’ and ‘Do not drop’ or ‘Handle with care’.

## **b) Shipper Information**

As a user, you are responsible for:

1) the declaration of the content of the Dewar (number and type of your samples e.g. ‘Cooling container with XXX frozen protein crystals for scientific experiments at receiver. Not dangerous.’), as well as for all the paperwork necessary related to the shipment of samples. Please note that an insufficiently or inaccurately described shipper content and packages containing samples which are not covered by IATA special provision A152 can cause a significant delay of the shipping procedure. This could lead to an interruption of the cooling chain and thawed, unfrozen samples.

2) following your courier's instructions and being aware of the policy of shipment from the country of origin, as well as eventual changes in the law.

3) all the **paperwork and costs** derived from the shipment of the Dewar from your home institution to DESY **as well as the return** from DESY to your home institution.

4) organizing the shipment from your home institute to DESY **and** from DESY back to your home institute

Shipping address:        PETRA III Bio Samples  
                                  CFEL Center for Free Electron Laser Science  
                                  c/o Deutsches Elektronen-Synchrotron DESY  
                                  Luruper Chaussee 149, Building 99, EG.001 Reception  
                                  22761 Hamburg  
                                  Germany  
                                  Phone: +49 40 8998 6666

**For more details on the Dewar shipping to and from P11 please have a look at our webpage:**

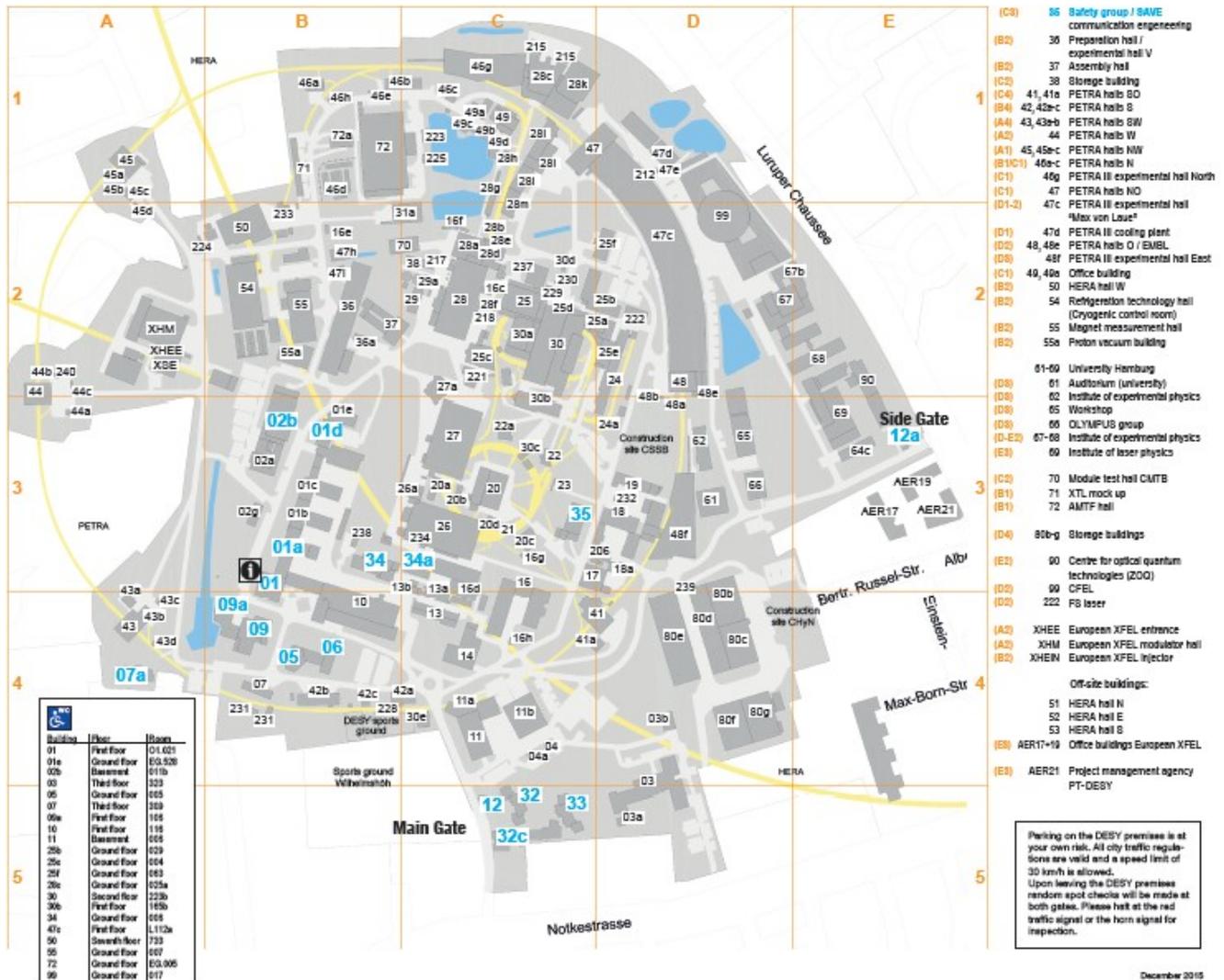
[http://photon-science.desy.de/facilities/petra\\_iii/beamlines/p11\\_bio\\_imaging\\_and\\_diffraction/user\\_information/dewar\\_shipping/index\\_eng.html](http://photon-science.desy.de/facilities/petra_iii/beamlines/p11_bio_imaging_and_diffraction/user_information/dewar_shipping/index_eng.html).

# II. During Your Beamtime

## II.1. Arrival at DESY

Detailed information on how to reach DESY can be found here:

[http://photon-science.desy.de/about\\_us/how\\_to\\_reach/index\\_eng.html](http://photon-science.desy.de/about_us/how_to_reach/index_eng.html)



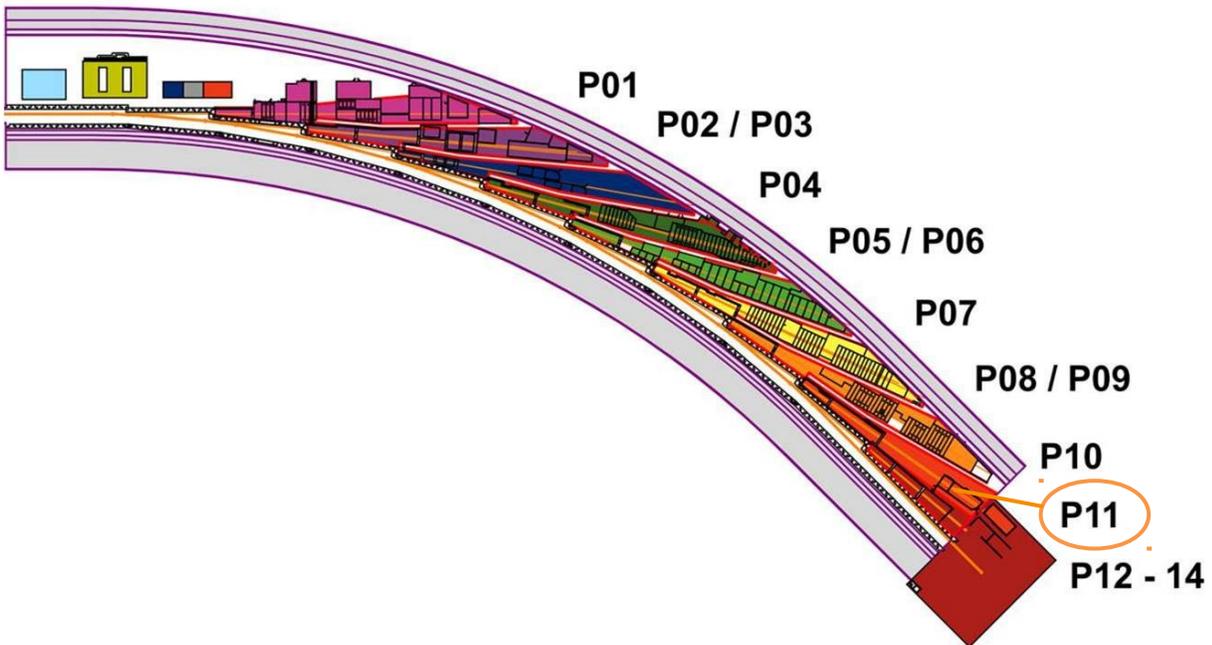
The DESY main entrance is located at Notkestrasse and is open at all times. The side entrance at the Luruper Chaussee is open for motorists from Monday till Friday, from 6:00 to 7:00, and closed on weekends. It is open for pedestrians and cyclists at all times.

Please get in touch with your local contact after your arrival on-site. You will be instructed at the P11 experimental station by your local contact. After the

instruction on-site you will receive the beam shutter permission.



PETRA III experimental hall from outside.



PETRA III experimental hall from inside.

## *II.2. Badges (DACHS cards)*

At PETRA III all experimental areas as well as laboratories, mechanical workshops and the accelerators are secured by the control system DACHS (DESY ACcess Handling System). In order to get access to the P11 user lab and to operate the P11 beamline you will need a valid access card (DACHS card).

You will get your personalized DACHS card after successfully passing the safety instructions. Your DACHS card can be printed in building 6 / room 110 (during office hours, Mon-Thu 9:00 - 11:30 and 13:00 - 16:00, Fri 9:00 - 11:30 and 13:00 - 14:00) or at the gatekeepers at the DESY main entrance (Mon-Sun, 24 h). In exceptional cases you can obtain your DACHS card at the Photon Science Users' Office (PETRA III Experimental Hall 'Max von Laue', bldg. 47c / room L106).

If you have already obtained a DACHS card during an earlier visit to DESY please bring it with you, otherwise you will be charged the costs for a spare card.

The permission to work in the P11 user lab and to search the P11 experimental hutch must be granted by your local contact at the beamline. Afterwards you can use your DACHS card.

## *II.3. Data Processing*

Data analysis during your experiment can be performed using computer **haspp11eval01**. You can login to this machine from the experimental PCs (**haspp11user02 - 04**) in the P11 control hutch via:

```
ssh p11user@haspp11eval01
```

The required password will be provided on-site by your local contact.

You can find your data here:

```
cd /gpfs/current
```

Various data processing and refinement software is available on **haspp11eval01**:

- BKchem
- CCP4
- COOT
- PHENIX
- PLATON
- xia2
- XDS
- SHELX
- Mosflm / iMosflm

- PyMOL
- Olex2
- OnDA
- CrystFEL

Additional information:

- The programs **ALBULA** and **adxv** may be used for visualization of your diffraction images.
- Text editors available on the P11 experimental PCs are e.g. **Nedit** or **Emacs**.

### **a) Automatic Processing with XDSAPP**

A data collection strategy is automatically calculated for each screening experiment via **mosflm**.

You can access the the generated .log file via:

```
cd /gpfs/current/processed/DataSet/DataSet_screening_X/strategy/mosflm.log
```

In order to get the necessary information (optimum rotation rage for native and anomalous data collection) please type:

```
grep -A 2 "Optimum" mosflm.log
```

Each data set collected at P11 will be automatically processed using the program package **XDSAPP**.

You can access your results from automatic data processing via:

```
cd /gpfs/current/processed/DataSet/DataSet_X/
```

There you will find 2 folders:

- 1) *pre*: partial data set processed at limited resolution range, allows fast feedback on your crystal and its diffraction properties.
- 2) *full*: complete data set (all frames collected) processed at the maximum resolution range

### **b) Manual Processing with XDSAPP**

**XDSAPP** (v0.21) is a GUI for the XDS package developed by the Helmholtz Centre Berlin. The input file is optimized for the P11 beamline parameters.

Please go to your data folder and type the command *xdsapp*, which will open the XDSAPP GUI. Processing outputs are stored in the subfolder 'xdsapp'.

Select Pilatus6M as detector type and your single or multiple data sets for analysis.

For further details please check the primary literature for XDSAPP: M. Krug *et al.*, *J. Appl. Cryst.* (2012), **45**, 568-572. <http://scripts.iucr.org/cgi-bin/paper?S0021889812011715>

If the automatic procedure fails you can also manually process your data.

### **c) Manual Processing with XDS (command line)**

For manual processing with **XDS** you may proceed as follows:

- 1) Go to your data folder
- 2) After you have modified the XDS.INP file according to your data collection parameters (detector distance, oscillation range, data range, etc.) you can start the program **XDS** with `xds_par`

## *II.4. Data Backup*

### **a) During Your Experiment**

You can backup your data to your own external hard disk via an USB 2.0/3.0 or Firewire connection. Supported formats are NTFS, ext4 or ext3.

Please connect your external disk to computer **haspp11user01** which is located next to the printer in the P11 control hutch. Your hard disk will be automatically mounted on this computer. You can copy your data using the python script **rsync\_command.sh** which is available in via `/home/p11user` on **haspp11user01**.

To avoid waiting time, please start the backup as soon as possible after your initial experiments.

### **b) After Your Experiment**

Once you have finished your experiment access to the local disks at P11 will no longer be granted.

You can download your data earliest 3 days after your beamtime via <https://gamma-portal.desy.de>

All participants registered for the experiment via DOOR will have access to the data and are authorized to download it from the gamma portal.

To download your data you need to login to the gamma portal using your DOOR username. A detailed documentation on the DESY gamma portal is given here: <https://confluence.desy.de/display/ASAP3/The+Gamma+Portal>

# III. After Your Experiment

After your beamtime is over you are kindly asked to get in touch with your local contact.

Please remove your waste and dispose it properly.

Please take or send back all your samples (chemicals, Dewars, equipment, etc.) to your home institution.

Please keep your DACHS card for future experiments at DESY Photon Science.

Please do not forget to collect and pay the bill(s) of the DESY hostel (or alternative accommodation).

In order to improve our service at P11 we rely on your comments and suggestions. Therefore we would like to ask you to submit a "Users' feedback" form via DOOR. In addition, you are kindly asked to submit an experimental report for each beamtime in DOOR. Please note that the experimental report is mandatory for proposal users and plays a crucial role for the evaluation of your future proposals at P11.