

GATE

General Access Tool for HZB User Facilities

Guidelines for Proposal submission

Helmholtz-Zentrum Berlin

Services and Software (IT-DS), User Coordination (NP-ACO)

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1 Preface

This handbook is for those who are intending to use GATE, the general access tool to the experimental infrastructures of the Helmholtz-Zentrum Berlin (HZB).

Users must be registered in GATE in order to be able to:

- submit beamtime applications for BER II or BESSY II
- participate in a HZB experiment as experimentalist
- give user feedback
- submit experimental reports
- submit publications related to HZB experiments

Please read this handbook carefully before using the system.

2 Submitting a new proposal

An application for beamtime – or proposal – consists of three major parts:

- the general part
- the technical part
- previous results (reports and publications)

The general part contains all the information regarding who is involved in the proposal as main proposer and co-proposer. It also includes the so-called scientific case.

The technical part deals with the actual experiment(s). It consists of the technical requirements for the instrument/beamline that is being applied for, a detailed experimental plan, and a description of the samples to be measured at the respective instrument/beamline. More than one sample/class of samples might be added to one experiment description. For each instrument/beamline that is requested in the proposal a separate technical requirement and sample description is necessary.

At the end of the proposal submission, you are asked to add experimental reports on previous experiments at HZB and publications based on experiments performed using HZB facilities (if applicable).

For starting the proposal submission, please use “Submit a new proposal” in the “My proposal” section.

My proposal

- [Submit a new proposal](#)
- [Submit a new proposal from XML-file](#)
- [Proposal list](#)
- [Publication list / submit publications](#)

2.1 General part

The general part consists of two webforms and one upload. Fields marked with an asterisk (*) are prerequisites.

New proposal

General proposal data

Title *

Abstract *
max. 1000 characters

Proposal type * Scientific College *

[Overview of the Scientific Colleges](#)

Main research area * Scientific Category *

Funding Funding requested [Information about funding](#)

Complementary beamtime for this research project will be used at another facility * yes no
If yes, please specify the facility

Declaration of peaceful purpose

HZB pursues scientific work solely for peaceful purposes.
In this respect the proposed research project serves and promotes exclusively peaceful purposes. *
 yes no

Industrial partners

Please indicate if any industrial partner or support is involved in the proposed research project (for statistical purpose only). *
 yes no

Scientific case and results expected [example](#)

PDF file (maximum 2 pages) No file selected.

2.1.1 General proposal data

Please

- Give the title of the proposal
- Provide a short abstract, describing the aim of the proposal
- Choose the proposal type.
Default proposal type is Standard. Members from cooperation research groups please choose CRG.
- Choose the scientific college that best fits your proposal
- State the main research area of your proposal
- Refine the research that is covered by your proposal by choosing a scientific category

- Apply for funding
Please note: not all groups are eligible for funding. Please check out the [Information about funding](#) in advance.

2.1.2 *Scientific case*

The scientific case must be written in English and be no longer than two A4 pages. Oversized or out-of-format files will not be uploaded to the system. Only pdf files with a maximum of two pages are accepted.

In the scientific case the following topics should be addressed:

- **Scientific context**
You should give a clear account of the aims of the experiment and set it within a broader scientific context. Keep in mind that not all review panel members are experts in the field.
- **Publications**
List the 5 most important publications in this field of science in order to show that you are aware of the work of others.
- **Choice of specific instrument/station**
Give reasons for your choice of instrument. Justify why you need to use this particular instrument and why HZB is important.
- **Preliminary work**
If possible, give results of preliminary work carried out (e.g., NMR or light scattering experiments) in support of your proposed experiment and to demonstrate sample quality.

You may continue the proposal submission process without uploading the scientific case, although final submission is not possible.

2.1.3 Co-proposer

In the next step you will be asked to add co-proposers to your proposal.

[General proposal data*](#) > **Co-proposer** > [Technical requirements*](#) > [Prev. results](#) > [Submit](#)

Co-proposer

Add co-proposer

Each co-proposer must be registered at HZB GATE.

Choose a facility/method for your proposal:

- Neutrons – Requirements for experiments at BER II
- Photons – Requirements for experiments at BESSY II
- MX – Requirements for macromolecular crystallography at BESSY II
- HFM/EXED – Requirements for the High Magnetic Field Facility for Neutron Scattering

To add a co-proposer, use the search co-proposer button. This will open a pop-up search window:

Search co-proposer for Proposal: 18106295-ST

Enter at least 2 characters of the users family name.

Please note: Co-proposers must be registered in GATE.

If you do not find the desired person in GATE, please ask the person to register.

[Close window](#)

You may add several co-proposers.

2.1.4 Choose a facility/method for your proposal

The last step in the general part of the proposal is the choice of the facility/method. For each chosen facility/method a separate technical part is generated. A proposal may contain more than one technical part.

After finishing one technical part, you will have the opportunity to go back to this point in order to add another one.

2.2 Technical part

The technical part is slightly different for each of the three facility options and depends on the instrument/beamline that is requested. In general you will have to:

- Choose the instrument/beamline to be used
- Upload a detailed experimental plan for all measurements intended to be carried out at the respective instrument/beamline
- Explain the necessity of using neutrons/photons
- Specify the experimental conditions
- Specify the sample environment needed
- Specify the HZB User Labs needed
- Describe the sample that is intended to be measured. If more than one sample (or class of samples) should be measured at the same instrument, add another sample description after finishing the first one.

Proposal: 18106295-ST

[General proposal data](#) > [Co-proposer](#) > [Technical requirements](#) > [Prev. results](#) > [Submit](#)

Technical requirements

Facility	Equipment	Samples	
1.1-P *	PM4 (Multi bunch)	sample A  	
		+ add sample	

Add technical requirement

- Neutrons – Requirements for experiments at BER II
 Photons – Requirements for experiments at BESSY II

add

previous step

next step

save and continue later

At the end, after finishing the description of the sample, you will have the option to add another sample (or class of samples) to be measured at the same instrument. Choose

 [add sample](#) to start another sample description.

You may edit the details of the samples you have already included in the proposal by clicking on the sample's name, e.g. [sample A](#) .

In case you intend to use more than one instrument/beamline for your proposal, please add another technical requirement by adding another technical requirement. This will start a new technical part which requires a separate experimental plan to be uploaded. The sample description must also be completed for every technical part.

2.3 Previous results from HZB experiments

The webform provides the opportunity to link experimental reports and/or publications based on results from previous HZB experiments to the proposal.

If you had previous beamtimes at HZB facilities, you will have the corresponding experiment report (required after the experiment is done) available in your GATE account. These may be linked to your proposal, provided that they are not older than 2 years. Below, the example shows two reports, one is already attached to the proposal and one could be added if relevant.

Reports

Reports linked to proposal			
 14100225 ST-2.1-P	Title	08.10.2013-08.10.2013	

Reports available in GATE as previous result			
<input type="checkbox"/>	 13200182 IN-1.1-MX	Mein Test	06.07.2013-07.07.2013
<input type="button" value="add marked reports"/>			

In addition, the proposal should list publications that are based on previous HZB experiments by your group (not older than 3 years). In order to be attached to the proposal, the publications have to be submitted to GATE and listed in the publication lists of proposer and co-proposers. To submit a new publication (see Chapter 3: Submitting publications), use

 [Enter new publications](#)

After your publication list is complete, you can select the appropriate entries to add to your proposal:

Publications available in GATE as previous result	
<input type="checkbox"/>	Fondell, M.; Johansson, F.; Gorgoi, M.; von Fieandt, L.; Boman, M.; Lindblad, A. : Phase control of iron oxides grown in nano-scale structures on FTO and Si(100): Hematite, maghemite and magnetite , <i>Vacuum</i> 117 (2015), p. 85–90 doi:10.1016/j.vacuum.2015.03.037
<input type="checkbox"/>	Isaeva, L.; Sundberg, J.; Mukherjee, S.; Pelliccione, C.J.; Lindblad, A.; Segre, C.U.; Jansson, U.; Sarma, D.D.; Eriksson, O.; Kadas, K.: Amorphous W–S–N thin films: The atomic structure behind ultra-low friction , <i>Acta Materialia</i> 82 (2015), p. 84–93 doi:10.1016/j.actamat.2014.08.043
<input type="checkbox"/>	Lindblad, R.; Jena, N.K.; Philippe, B.; Oscarsson, J.; Bi, D.; Lindblad, A.; Mandal, S.; Pal, B.; Sarma, D.D.; Karis, O.; Siegbahn, H.; Johansson, E.M.J.; Odelius, M.; Rensmo, H.: Electronic Structure of CH ₃ NH ₃ PbX ₃ Perovskites: Dependence on the Halide Moiety , <i>Journal of Physical Chemistry C</i> 119 (2015), p. 1818–1825 doi:10.1021/jp509460h
<input type="checkbox"/>	Sundberg, J. ; Lindblad, R.; Gorgoi, M.; Rensmo, H.; Jansson, U.; Lindblad, A.: Understanding the effects of sputter damage in W–S thin films by HAXPES , <i>Applied Surface Science</i> 305 (2014), p. 203–213 doi:10.1016/j.apsusc.2014.03.038
<input type="checkbox"/>	Fondell, M.; Gorgoi, M.; Boman, M.; Lindblad, A.: An HAXPES study of Sn, SnS, SnO and SnO ₂ , <i>Journal of Electron Spectroscopy and Related Phenomena</i> 195 (2014), p. 195–199 doi:10.1016/j.elspec.2014.07.012
<input type="checkbox"/>	Fondell, M.; Gorgoi, M.; Boman, M.; Lindblad, A.: HAXPES study of Sn core levels and their plasmon loss features , <i>Results in Physics</i> 4 (2014), p. 168–169 doi:10.1016/j.rinp.2014.08.006
<input type="button" value="add marked publications"/>	

3 Submitting publications

To submit a publication that is not yet included in your publication list in GATE, the most straightforward way is to search in ISI Web of Knowledge in the search menu located in the “Publication list” section of your GATE account:

Publication list

Please submit **only publications that are based on experiments at one of the HZB facilities** (BER II, BESSY II). You will be asked later on to specify both the facility and instrument/beamline/station that were used.

Please note: Only publications that clearly mention the use of the HZB facilities can be taken into account for internal and external reporting of HZB. All other publications will be discarded.

In order to **avoid multiple entries** of publications, please follow these steps:

- Look first in the GATE publication database for your publication
- If the publication is not yet contained in GATE, please use the search option in the ISI Web of Knowledge
- If your publication is not found in the ISI Web of Knowledge, you may [enter the publication data here](#).

Search in your publication list

Year

Search GATE publication database

Author

Title

Year

Search ISI Web of Knowledge

Author

Institute

Title

Year

Your publications in GATE	HZB facility
2012	
Lelong, G.; Heyd, R.; Charalambopoulou, G.; Steriotis, T.; Brandt, A.; Beck, K.; Vayer, M.; Price, D.L.; Brady, J.W.; Saboungi, M.-L.: Role of Glucose in Enhancing Stability of Aqueous Silica Gels Against Dehydration, <i>Journal of Physical Chemistry C</i> 116 (2012), p. 9481–9486 doi: 10.1021/jp208377t	BER II: V4 <input type="button" value=""/>
2009	
Jung, D.; Paradiso, M.; Wallacher, D.; Brandt, A.; Hartmann, M.: Formation of Cross-Linked Chloroperoxidase Aggregates in the Pores of Mesocellular Foams: Characterization by SANS and Catalytic Properties, <i>ChemSusChem</i> 2 (2009), p. 161–164 doi: 10.1002/cssc.200800245	BER II: V4 <input type="button" value=""/>

The search yields a list per publication year:

Search results from ISI Web of Knowledge

Mark the publications you want to add to your GATE publication list.

Gunnella, R.; Zgrablic, G.; Giangrisostomi, E.; D'Amico, F.; Principi, E.; Masciovecchio, C.; Di Cicco, A.; Parmigiani, F.: Ultrafast reflectivity dynamics of highly excited Si surfaces below the melting transition. *PHYSICAL REVIEW B* 94 (2016), ARTN 155427
doi:[10.1103/PhysRevB.94.155427](https://doi.org/10.1103/PhysRevB.94.155427)

Principi, E.; Giangrisostomi, E.; Cucini, R.; Bencivenga, F.; Battistoni, A.; Gessini, A.; Mincigrucchi, R.; Saito, M.; Di Fonzo, S.; D'Amico, F.; Di Cicco, A.; Gunnella, R.; Filippini, A.; Giglia, A.; Nannarone, S.; Masciovecchio, C.: Free electron laser-driven ultrafast rearrangement of the electronic structure in Ti. *STRUCTURAL DYNAMICS* 3 (2016), ARTN 023604
doi:[10.1063/1.4935687](https://doi.org/10.1063/1.4935687)

You may mark the appropriate publications and add them to your GATE publication list.

After adding the publication to GATE, you are asked to assign the publication to the HZB experimental facility that was used. Please do so in order to allow HZB to fulfill its reporting duties. Any publications that are not assigned to a specific HZB facility cannot be added to a proposal in the submission process.

Your publications in GATE	HZB facility
2016	
Gunnella, R.; Zgrablic, G.; Giangrisostomi, E.; D'Amico, F.; Principi, E.; Masciovecchio, C.; Di Cicco, A.; Parmigiani, F.: Ultrafast reflectivity dynamics of highly excited Si surfaces below the melting transition , Physical Review B 94 (2016), p. ARTN 155427 doi:10.1103/PhysRevB.94.155427	assign HZB facility edit 

By choosing [assign HZB facility](#) or  you will be redirected to a page where you can complete the information about the paper, including assigning the HZB facility, instrument/beamline and station that has been used in the experiment.

Edit publication

Publication	
Type of publication	Scientific publication
Title of the publication *	Ultrafast reflectivity dynamics of highly excited Si surfaces below the melting transition
Author(s) * (Name, X.; Name, Y.; Name, Z.)	Gunnella, R.; Zgrablic, G.; Giangrisostomi, E.; D'Amico, F.; Principi, E.; Mascic
Year *	2016

Scientific publication	
Journal *	Physical Review B other <input type="text"/>
Volume	94
Pages	ARTN 155427
doi	10.1103/PhysRevB.94.155427

Utilized HZB equipment *	
for multiple choices hold CTRL-button If you accidentally checked the wrong instrument, you can uncheck it when you hold CTRL-button and click on it again.	
<input type="checkbox"/> BER II Instruments	<div style="border: 1px solid gray; padding: 2px;"> <i>3-Axis Spectrometer</i> V2 PANDA E1 <i>Diffraction</i> </div>
<input type="checkbox"/> BESSY II Beamlines	<div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid gray; padding: 2px;"> 3mNIM 7T-MPW-EDDI 7T-MPW-MAGS/SAXS BAMline CP-NIM </div> <div style="border: 1px solid gray; padding: 2px;"> ALICE ARPES One-Cube ARPES One-Square BAMline station CISSY </div> </div>
	Exp. Stations

Publisher version (PDF)
For administrative reasons HZB needs a reprint of all publications connected to the use of HZB facilities. Unfortunately, HZB is not granted on-line to access every journal. If possible, please attach the publisher version (or the final draft) of your paper. Thank you.
full text (publisher version) as PDF file
<input type="button" value="Browse..."/> No file selected.