



TECHNISCHE UNIVERSITÄT
BERGAKADEMIE FREIBERG

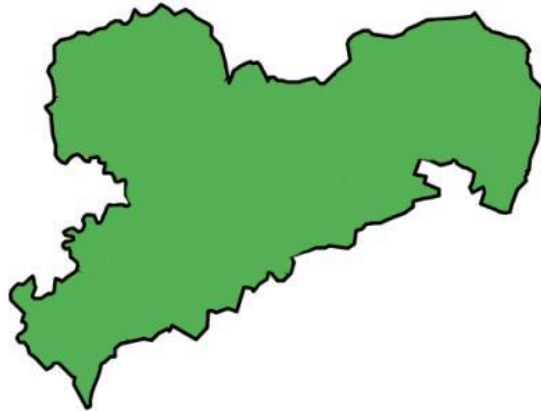
Die Ressourcenuniversität. Seit 1765.

Saxony-DESY Collaboration

User meeting, July 7, 2023



Freistaat
SACHSEN





Agenda

- Opening remarks
- Current activities
- Overview of the proposals and granted beamtimes
- Next activities
- Saxony-DESY Collaboration Centre
- Suggestions for the representatives in preliminary Scientific Board
- Discussion



Deutsches Elektronen-Synchrotron DESY
A Research Centre of the Helmholtz Association

DOOR HOME | CONTACT

DOOR
DESY Online Office for Research with Photons

DESY PHOTON SCIENCE »

Continue	Proposal Submission PETRA III (regular proposals)
Continue	Proposal Submission PETRA III (rapid access proposals)
Continue	Proposal Submission PETRA III (long-term projects)
Continue	Proposal Submission PETRA III (block allocation group proposals)
Continue	Proposal Submission FLASH



PROPOSAL SUBMISSION GENERAL INFORMATION				
STEP 1: GENERAL INFORMATION	STEP 2: EXPERIMENT SPECIFICATION	STEP 3: DETAILED PROJECT DESCRIPTION	STEP 4: OWN PETRA III/FLASH PUBLICATIONS	STEP 5: SUBMIT PROPOSAL

TITLE (*)

LEADER/PRINCIPAL INVESTIGATOR

Project Leader (*)	<input type="text"/>	SELECT	REMOVE
Principal Investigator (*)	<input type="text"/>	SELECT	REMOVE

CO-PROPOSERS

Co-Proposer	<input type="text"/>	SELECT	REMOVE
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PROPOSAL SPECIFICATIONS

Proposal Type (*)	Regular Proposal (valid for one beamtime during the next run pe
Primary Research Field (*)	- Select one -
Secondary Research Field	- Select one -
Research Category (*)	- Select one -
Discipline (*)	- Select one -
Specific Discipline (*)	- Select one -
User Group/Collaboration	- Select one -

Regular Proposal (valid for one beamtime during the next run pe

- Select one -
- General user
- India-DESY collaboration
- Sweden-DESY collaboration
- Saxony-DESY collaboration**



Priority access

For **users from Saxony universities**, priority access of **1400 h per year** is planned.
The first **700 h were reserved** for the **run period 2022-II** (16.08.2022 – 18.12.2022).

Applicable beamlines:

- Users from Saxony can apply for **all PETRA III beamlines** (for P12, P13 and P14 via the EMBL web page).
- Beam time is awarded **by excellence and/or by priority**.
- **Access by excellence** is possible for all beamlines, independent of the availability of the priority access.
- **Priority access** is only possible for the beamlines owned by DESY. For beamlines not fully owned by DESY, the allotment of the prioritized beam time may be smaller.

https://photon-science.desy.de/facilities/petra_iii/beamlines/index_eng.html

P01 : 50 %	P04 : 100 %	P09 : 100 %	P21.2 : 30 %	P61 : 50 %	P66 : 100 %
P02.1 : 100 %	P06 : 100 %	P10 : 100 %	P22 : 100 %	P62 : 100 %	
P02.2 : 100 %	P07 : 30 %	P11 : 80 %	P23 : 67 %	P64 : 100 %	
P03 : 67 %	P08 : 100 %	P21.1 : 50 %	P24 : 90 %	P65 : 100 %	

- At each beamline, the **sum of all priority beam times** from all partners is **max. 20 %** of the available beam time.

Diffraction & Scattering

P02.1, P02.2, P07, P21.1, P21.2, P61 High energy X-ray, LVP, white beam diffraction & imaging

P03, P12, P62, P63 Small angle scattering, GISAXS, μ ASAXS, P63 → 2023

P08, P23, P24, P25, P63 Crystallography & Surfaces, automated XRD → 2023

P11, P13, P14 Macromolecular crystallography

P04, P06, P10 Coherent diffraction & scattering

P09 Resonant magnetic scattering

New PETRA III beamlines in user operation: P61A, P61B, P62 & P66

PETRA III beamlines under construction/under planning: P23-KIT, P25, P63

PETRA III – Beamlines



Spectroscopy

P01	Inelastic and nuclear scattering
P22	Hard X-ray photoelectron spectroscopy
P04	Soft X-ray photoelectron spectroscopy
P64, P65, P63	X-ray absorption & fluorescence spectroscopy, P63 → 2023
P09	X-ray magnetic circular dichroism (XMCD)
P66	VUV spectroscopy, t-resolved

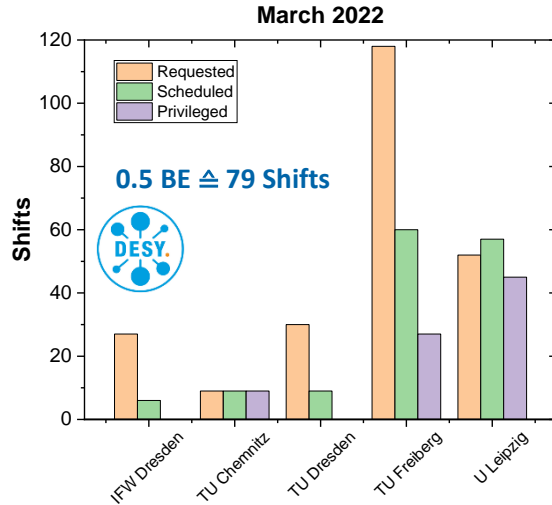
Imaging

P04, P06, P10	Micro & nano imaging (coherence)
P05, P06, P07, P14, P61, P23-KIT	Micro & nano imaging (absorption & phase contrast, laminography → 2022)
P03, P06, P21.1, P21.2, P62, P25	Micro & Nano imaging (fluorescence, dark field, SAXS, white beam → 2023)

New PETRA III beamlines in user operation: P61A, P61B, P62 & P66

PETRA III beamlines under construction/under planning: P23-KIT, P25, P63

Proposals and allocated beamtime



Total shifts

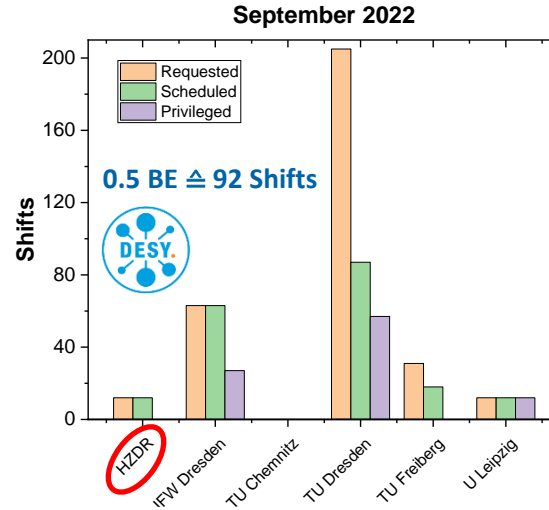
Requested: 236

Allocated: 141

Regular: 48

Privileged: 81

HEREON (regular): 12



Total shifts

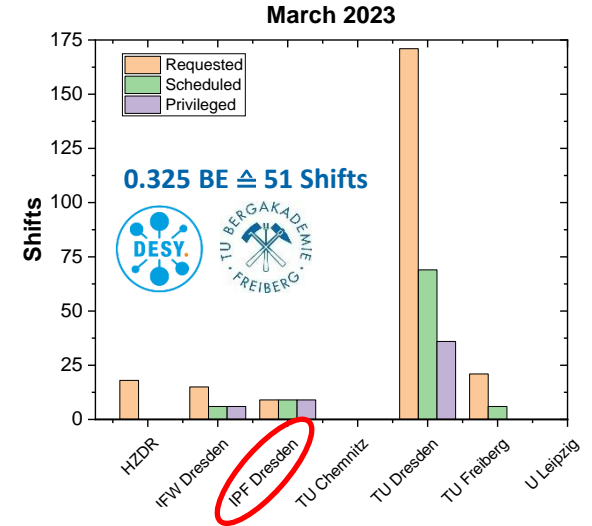
Requested: 323

Allocated: 192

Regular: 90

Privileged: 96

HEREON (regular): 6



Total shifts

Requested: 234

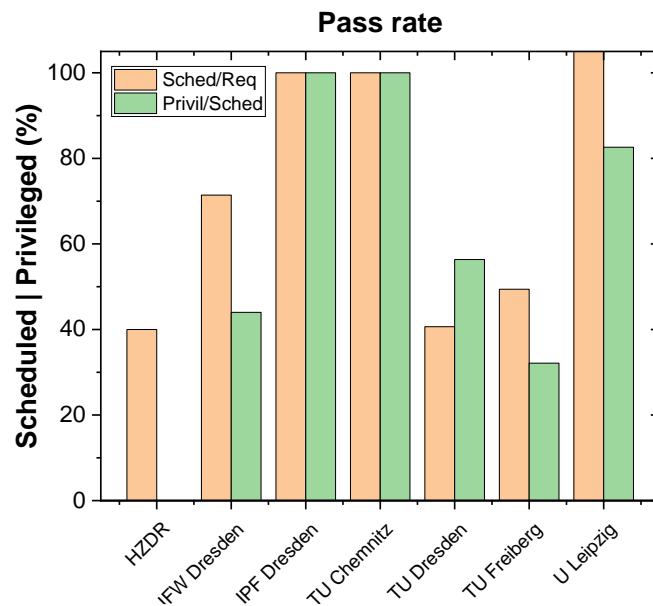
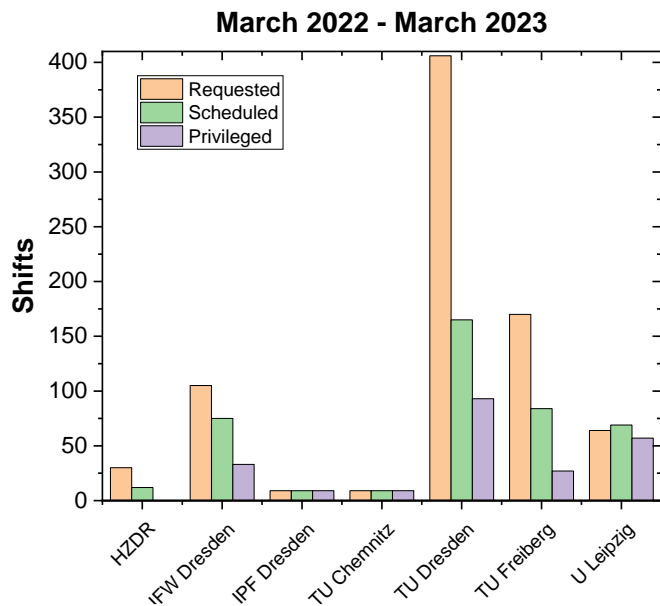
Allocated: 90

Regular: 33

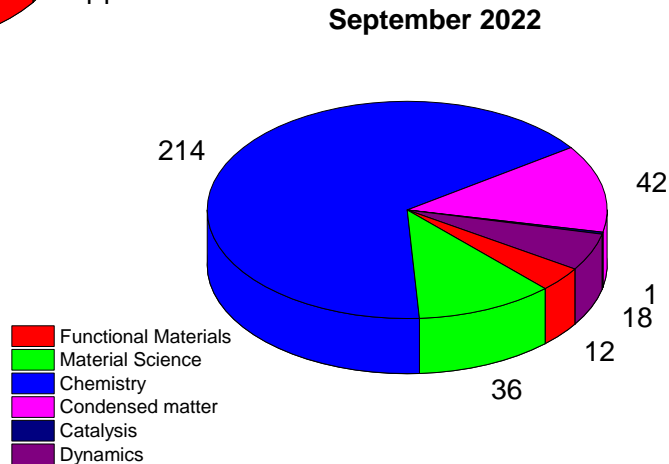
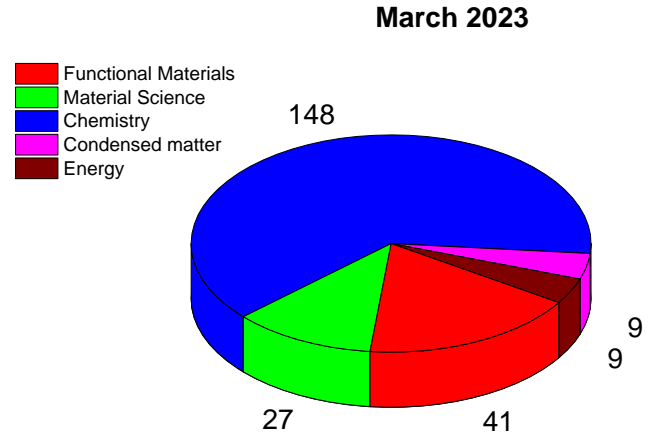
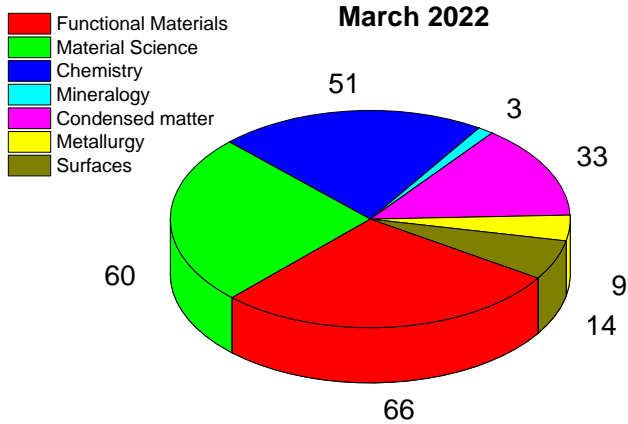
Privileged: 51

HEREON (regular): 6

Proposals and allocated beamtime



Fields of Research (requested shifts)





Initial funding



Sustainability-driven Nano- and Materials Science and Technology with Synchrotron Radiation

Physics, chemistry, materials science and geosciences

Goals

- To implement and to enable research projects of common interest at all beamlines of PETRA III
- To organize other common activities, e.g., joint workshops and summer schools
- To educate young scientists and train them in the most modern experimental techniques



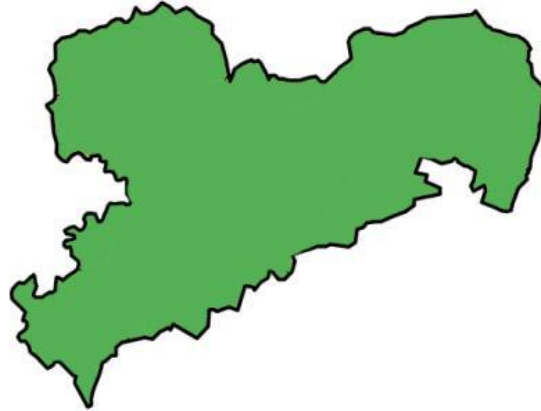
August 2023 to July 2025 – 0.325 BE

(Old) New business

Saxony-DESY Collaboration Centre

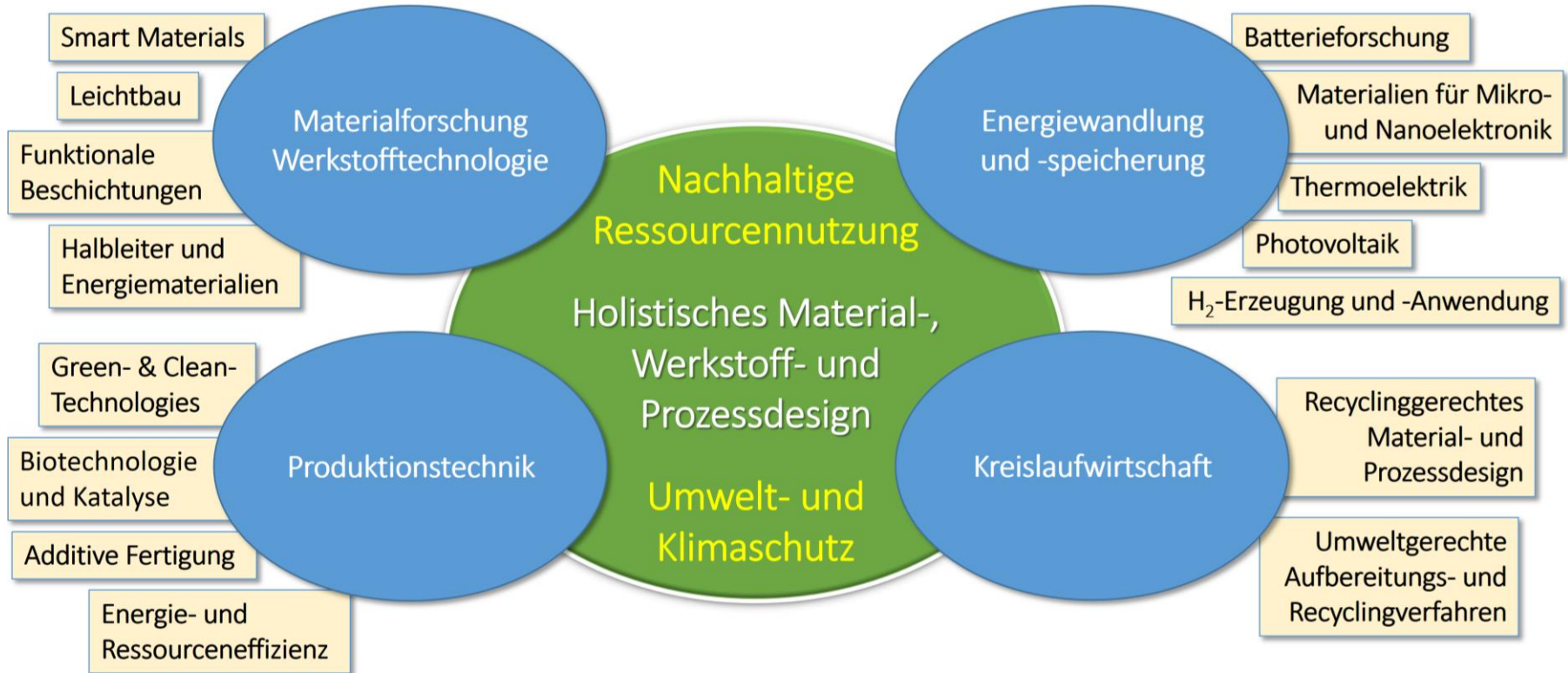


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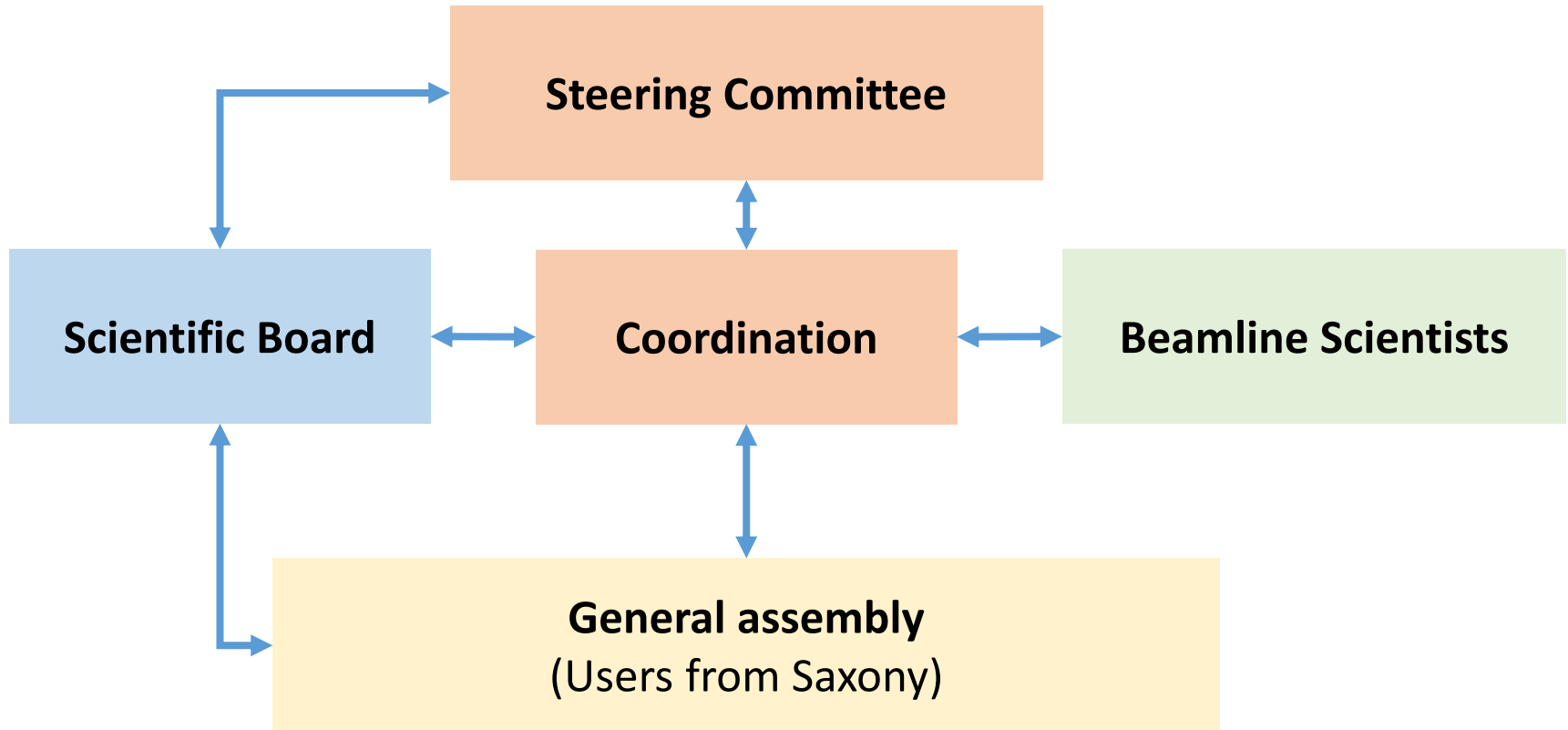
The concept paper “Sächsisches Zentrum für nachhaltigkeitsorientierte Materialforschung und Prozessentwicklung” circulated among the university sites.

Saxony-DESY Collaboration Centre





Saxony-DESY Collaboration Centre



Next steps

User meeting: <https://indico.desy.de/event/39845/>

The Sachsen-DESY Cooperation Center is a joint initiative of Saxon universities and research centers with the Deutsches Elektronen-Synchrotron (DESY) in Hamburg. This cooperation is intended to strengthen Saxony's leading position in the field of materials and materials research and process development and to significantly advance DESY's research in the field of materials science applying synchrotron radiation

This initiative enables joint activities for both partners:

- basic physical and chemical research
- research in the field of materials science
- engineering and application-oriented research
- privileged access to the synchrotron radiation source PETRA III

This workshop serves as a kick-off. Joint projects of the Saxon universities and research institutions as well as DESY will be presented within the framework of the cooperation center, ideas for new projects will be conceptualized and the expansion of strategic cooperation will be planned.



Starts Nov 23, 2023, 12:30 AM

Ends Nov 24, 2023, 1:30 PM

Europe/Berlin



DESY Campus Bldg. 28c (FLASH)

FLASH Seminar room



Registration

Registration for this event is currently open.

Register now >

User meeting @ DESY

Thursday, November 23rd

Time	Title	Speaker
12:30 am	Welcome with sandwiches	FLASH seminar room Bldg. 28c
1:00 pm	Welcome	
1:30 pm	The Saxony DESY Cooperation	
2:00 pm	PETRA III beamline and services @ DESY (by DESY)	
2:30 pm	Related topics from TU Freiberg & Zentrum für effiziente Hochtemperatur-Stoffwandlung	
3:00 pm	The access to PETRA III beamline and services @ DESY	
3:30 pm	Coffee break	
4:00 pm	Related topics from TU Dresden and HZDR	
4:30 pm	DESY Nanolab	
5:00 pm	Related topics from TU Chemnitz	
5:30 pm	Poster and Discussion	

Friday, November 24th

Time	Title	Speaker
09:00 am	Related topics from Uni Leipzig	
09:30 am	DESY PETRA IV	
10:00 am	Related topics from Saxony Fraunhofer / Leibniz Institutes IFW, IPF, IOM	
10:30 am	Special Topics / Match making	
12:00 am	Summary conclusion	
12:30 am	Lunch	



Next steps

Meeting of the Rectors of the Saxony Universities
(including the Universities of Applied Sciences)

In Frame of the Meeting of the
“Landesrektorenkonferenz”



Preliminary Scientific Board

TU Chemnitz: Prof. A. Undisz, Electron Microscopy and
Microstructure Analytics

TU Freiberg: Prof. D. Rafaja, Structure and Microstructure
Analysis

TU Dresden: ???

Research Institutes (Leibniz, Fraunhofer, Max Planck,
Helmholtz): ???

Uni Leipzig: No interest at the moment

HTW Dresden: Prof. M. Zschornak

Thank you for your attention



Discussion