



4th Call for Proposals for Early User Experiments at the European XFEL

The European X-Ray Free-Electron Laser Facility (European XFEL, <https://www.xfel.eu>) encourages the scientific community worldwide to submit proposals for Early User Experiments via the [User Portal to the European XFEL \(UPEX\)](#) **until Monday 17 December 2018 14:00 (local Hamburg/Schenefeld time - UTC+1)**

Beamtime will be allocated to successful proposals from July 2019 to November 2019. The allocated beamtime will be provided in 12-hour shifts.

The following scientific instruments will be made available during this period:

- Femtosecond X-Ray Experiments (FXE) Instrument at Beamline SASE1 <https://www.xfel.eu/facility/instruments/fxe> (in early user operation since September 2017)
- Single Particles, Clusters, and Biomolecules and Serial Femtosecond Crystallography (SPB/SFX) Instrument at Beamline SASE1 https://www.xfel.eu/facility/instruments/spb_sfx (in early user operation since September 2017)
- High Energy Density Matter (HED) Instrument at Beamline SASE2 <https://www.xfel.eu/facility/instruments/hed> (in early user operation since May 2019). Community proposals are encouraged for "advanced commissioning and demonstration of techniques" at this instrument.
- Materials Imaging and Dynamics (MID) Instrument at Beamline SASE2 <https://www.xfel.eu/facility/instruments/mid> (in early user operation since March 2019)
- Spectroscopy and Coherent Scattering (SCS) Instrument at Beamline SASE3 <https://www.xfel.eu/facility/instruments/scs> (in early user operation at the end of 2018)
- Small Quantum Systems (SQS) Instrument at beamline SASE3 <https://www.xfel.eu/facility/instruments/sqs> (in early user operation at the end of 2018)

Instrument overview: <https://www.xfel.eu/facility/instruments>

All proposals submitted in this call will be reviewed for their scientific quality by panels of international experts and, in addition, checked for safety and feasibility conditions. Proposals shall consider the **specific** conditions for **Early User Experiments** expected for this allocation period.

4 th Allocation Period (July 2019 – November 2019)						
SASE FEL	SASE 1/SASE 2			SASE 3		
Electron energy [GeV]	≥16	14	11.5	≥16	14	11.5
Photon energy [keV]	8.5 – 18	6** – 14	5** – 10	1 – 2**	0.7 – 2**	0.47** – 1.3
Pulse duration (calc.) [fs]	25	25	25	25	25	25
Intra-train frequency [MHz]	1.1	1.1	1.1	1.1	1.1	1.1
Bunches/pulses (max per train/instrument)	200*	200*	200*	200*	200*	200*

* 200 bunch/pulse operation depending on specific conditions of operation

** Depending on operation condition approvals at time of experiment

The scientific instruments are at different stages of advancement. At those instruments starting operation, community projects are in preparation. Please inquire with the instrument team to find out the targeted developments of these projects.

It is recommended that prospective users contact the instrument teams to check on feasibility conditions for this call before submitting their proposals:

- **FXE:** christian.bressler@xfel.eu
- **SPB/SFX:** spb.sfx@xfel.eu
- **HED :** ulf.zastra@xfel.eu
- **MID :** anders.madsen@xfel.eu
- **SCS :** scs@xfel.eu
- **SQS :** michael.meyer@xfel.eu

More information about organization of user experiments at the European XFEL can be found here:

<https://www.xfel.eu/users>

Travel funding and living subsistence is available for a specified number of users affiliated with organizations based in the member countries of European XFEL.

Further details are available here:

https://www.xfel.eu/users/user_guide/funded_user_travel

For this call, limited funding is also available through the EU support programme CALIPSOplus (<http://www.calipsoplus.eu/>) for scientists from organizations in non-member countries.

General queries can be directed to the European XFEL User Office:

Email: useroffice@xfel.eu

Phone: +49 (0)40 8998-6937 or -6767