

Session Program

23-28 Aug 2026



FEL2026 - 42nd International Free Electron Laser Conference

Monday Poster Session

Monday 24 August

16:00

Monday Poster Session

Poster Session | Location: Stanford University

Machine-learning-based four-dimensional phase space reconstruction for future S3FEL electron beam diagnosis

Speakers

Cheng-xin Wu, Zhenbiao Sun

Neural Network Quantum Molecular Dynamics for Simulating Excited-State Water Chemistry

Speaker

Samuel Sahel-Schackis

Returning European XFEL to user operation after the 2025 long shutdown

Speaker

Matthias Scholz

Generation of very soft x-ray at the LCLS

Speaker

Aliaksei Halavanau

Conceptual Design Studies of a PITZ-Like THz FEL for Pump-Probe Applications at the European XFEL

Speaker

Mikhail Krasilnikov

Attosecond two-color x-ray free-electron lasers with dual chirp-taper configuration and bunching inheritance

Speaker

Dr Hao Sun

Generalization of the Ming Xie shot noise formula to treat different pulse profiles

Speaker

Dr Henry Freund

Current horn suppression using laser heater shaping for FEL generation

Speaker

Chang-Kyu Sung

The UK vision for next-generation XFELs

Speaker

David Dunning

Numerical Analysis of FEL Pulse-Energy RMS Jitter in FBD-Based HXRSS

Speaker

Kookjin Moon

Generating Coherent Undulator Radiation from CEP-stable Pre-bunched Pulses

Speaker

Arnav Swaroop

High-Repetition-Rate Tunable UV Laser System for External Seeding of FLASH**Speaker**

Ingmar Hartl

Generation of tunable, phase-locked hard X-ray pulse pairs**Speakers**

MyungHoon Cho, Chi Hyun Shim, Dr Philipp Dijkstal, Wenxiang Hu

Demonstration of direct-amplification enabled harmonic generation in an ultraviolet free-electron laser**Speaker**

Dr Hao Sun

Hard X-ray self-seeding design for SwissFEL**Speaker**

Dr Philipp Dijkstal

A Modular Framework for Integrated Start-to-End Simulation of Seeded Free-Electron Lasers**Speaker**

Pardis Niknejadi

Mitigating the Sensitivity to Seed-Laser Dispersion in Seeded Free-Electron Lasers via Direct-Amplification Enabled Harmonic Generation**Speaker**

Lanpeng Ni

Coherent soft X-ray radiation up to 1.6 keV by external seeding at SwissFEL**Speakers**

Dr Philipp Dijkstal, Wenxiang Hu, Sven Reiche

Experimental Study of Third-Harmonic Laser Heating in the LCLS-I Injector**Speaker**

Ahmed Osman

Laser-Induced Structured Electron Beam**Speaker**

Xiujie Deng

Numerical Studies of Trapped-Ion Stability for Various Bunch-Gap Patterns and Beam Loading in ERL-FEL**Speaker**

Naoto Yamamoto

TDC-based longitudinal manipulator**Speaker**

Alex DeSimone

Generation of Sawtooth Correlations for Brighter Compact Light Sources

Speaker

Alex DeSimone

Physics Design of S3FEL Superconducting Linear Accelerator**Speaker**

Zhenbiao Sun

Evaluating ML architectures for latent beam representation at LCLS**Speaker**

Kiley Gruenberg

GINGER-3D -- Code Summary and Some Particular Results**Speaker**

Dr William Fawley

Attosecond spike formation from slice-resolved bunching dynamics in sign-reversing chirped undulator tapering**Speaker**

Longdi Zhu

Lasing of the elliptically polarized undulators in SXFEL**Speaker**

Zhangfeng Gao

Generation of fresh-slice self-seeded hard X-ray FELs at PAL-XFEL**Speaker**

Chang-Kyu Sung

Advancing Seeded-FEL Performance at FERMI: Operational Status and Future Plans**Speaker**

Primož Rebernik Ribic

Harmonic modulation for ultra-wide tuning range terahertz free-electron laser via frequency-beating laser modulation**Speaker**

Lingjun Tu

Cathode laser temporal shaping for LCLS-HE**Speaker**

Nicholas Sudar

Beam optics design for ERL-based EUV-FEL**Speaker**

Yosuke Honda

Attosecond xFEL structure originating from dispersive space charge waves in a low energy injector**Speaker**

David Cesar

Radiation friction in a relativistic electron beam passing through an undulator.

Speaker
Vladimir Ognivenko

Status of the high-power, tunable THz FEL source at PITZ

Speaker
Namra Aftab

Compact Energy Recovery Linac-Based FEL for EUV Lithography

Speaker
Ji Qiang

Live Longitudinal Modeling for LCLS and LCLS-II

Speaker
Jingyi Tang

Differentiable 1D FEL Simulation for Gradient-Based Optimization and Inference

Speaker
Jingyi Tang

Beam Shaping via Latent-Space Optimization of Longitudinal Phase Space in XFELs

Speaker
Zihan Zhu

Online X-ray Characterization Toward Closed-Loop FEL Control at LCLS-II

Speaker
Jack Hirschman

Study of Instantaneous Surface Current Distribution on an Echelette Type Grating for Coherent Smith-Purcell Radiation

Speaker
Hiroyuki Hama

AI-assisted FEL tuning for attosecond pulse generation

Speaker
Aaron Reed

Simulation model calibration and optimization of the beamline based on generative phase space reconstruction methodology

Speaker
Seongyeol Kim

Machine Learning Optimization of E-Beam Transport in the ORCAD Accelerator

Speaker
Amir Weinberg

Design and Implementation of a Tapering Enhanced Superradiant Source at THz Frequencies

Speaker
Amir Weinberg

Fast Electron Beam Steering for MHz X-ray Beam Sharing

18:00

Speaker
Trey Guest