Free Electron Laser Conference FEL2024
August 18-23, 2024 – Warsaw, Poland

FEL2024

	Sunday 18.08.2024	Monday 19.08.2024	Tuesday 20.08.2024	Wednesday 21.08.2024	Thursday 22.08.2024	Friday 23.08.2024
			Session 3 - SASE-FEL (110 min)	**Session 6 Electron sources (110 min)**	**Session 10 - Electron diagnostics, timing, synchronization & controls (110 min)**	**Session 12 -Advanced FEL modes and science applications, (110 min)**
8:45-9:20		**Opening**	(I) Commissioning and operation of a CW X-ray SASE FEL at SLAC **Yuantao Ding (SLAC)**	(I) Commissioning of the SHINE Electron Source **Houjun Qian (Zhangjiang Lab)**	(I) Measurement with sub-femtosecond resolution of electron and photon beams **Philipp Dijkstal (PSI)**	(I) Fully Structured light with seeded free-electron lasers **Jenny Morgan, (SLAC)**
9:20-9:45		Richard Walker, (Diamond LS), "In memoriam: Mike Poole (1945-2023)" 9.20-9.30	(C) Transformation of FLASH1 to a high repetition rate externally seeded FEL for users **Lucas Schaper (DESY)**	(I) Overview of the Center for Bright Beams photocathode work **Oksana Chubenko (Northern Illinois Univ.)**	(I) Fast 6-Dimensional Phase Space Reconstructions using Generative Beam Distribution Models and Differentiable Beam Dynamics, and Automated Characterization for LCLS-II **Ryan Roussel, (SLAC)**	(I) X-ray FEL lays the groundwork for Scandium-45 nuclear clock, **Yuri Shvyd'ko (ANL)**
9:45-10.10		**Session 1 - First Lasing , New FEL projects and Facility Reports** **9.30-12.50**	(C) First experience of using corrugated structures at high repetition-rate x-ray free-electron lasers **Weilun Qin (DESY)**	(C) Breaking Convention: Novel Normal-Conducting Electron Sources for Higher 6D Brightness **Thomas Lucas (PSI)**	(C) ML-driven Automated Tuning of XFEL for Various Experiments and User-specific Requirements at SACLA **Eito Iwai (RIKEN SPring-8 Center)**	(C)Experimental demonstration of attosecond pump-probe spectroscopy with an X-ray free-electron laser **Zhaoheng Guo (PSI)**
10:10-10.35		Sven Reiche (PSI/SwissFEL) Thomas Tschentscher (European XFEL) Lucas Shaper (FLASH) Marie Emmanuelle Couprie (Soleil) Myung Hoon Cho (PAL-XFEL) Heishun Zen (Kyoto University) Hitoshi Tanaka (SACLA)	(C) Terawatt-attosecond hard X-ray free-electron laser pulse generation at the European XFEL **Jiawei Yan (EuXFEL)**	(C) Novel Photocathode Lasers for the Hard- and Soft-X-ray Free Electron Lasers EuXFEL and FLASH, **Christoph Mahnke (DESY)**	(C) Low-jitter conversion from optical references to electrical radio frequency signals **Erik Mansten (MAX IV Laboratory)** (C) Single-shot electro-optic measurement of bunch shapes using diversity schemes at European XFEL and FLASH **Quentin Demazeux (Laboratoire de Physique des Lasers, Atomes et Molécules)**	(C)Demonstration of tunable, phase-locked X-ray FEL pulses **(PSI) Wenxiang Hu**
10.35-11.00		*coffee*	*coffee*	*coffee*	*coffee*	*coffee*
			Session 4 -Seeded FEL (110 min)	**Session 7 - Electron beam dynamics (110 min)**	**Session 11 - Photon beamline instrumentation & undulators (110 min)**	**Session 13 Attosecond science - Nobel Prize (110 min)**
11.00-11:35		**First Lasing , New FEL projects and Facility Reports** **9.30-12.50**	(I) Better a chicane today than an undulator tomorrow? **Eugenio Ferrari (DESY)**	(I) Chicane or arc compressors for FEL? - Experience with the MAX IV arc compressors and beyond **Sara Thorin (Lund Univ., MAX IV)**	(I) Superconducting Undulator developments at the European XFEL **Sara Casalbuoni (EuXFEL)**	(I) Attosecond capabilities of FELs **Agostino Marinelli (SLAC)**
11.35-12:00			(I) Conversion to EEHG of the FEL-1 line at FERMI: commissioning results and first experience with user's operations **Giuseppe Penco (Elettra)**	(I) Microbunching Instability Mitigation Strategies and Diagnostic Methods **Alexander Darius Brynes (Elettra)**	(I) Diamond sensors for fast pulse-resolved hard x-ray FEL beam position and intensity monitoring, **Wolfgang Freund (EuXFEL)**	(I) Attosecond science at FELs **Giuseppe Sansone, (Univ Friburg)**
12:00-12.25		Zhirong Huang (LCLS) Zhentang Zhao (SHINE) Chao Feng (SXFEL) Weiqing Zhang (S3FEL) Dave Dunning (UK XFEL) Robert Nietubyc (PolFEL, NCBJ) Shaukat Khan, (TU Dortmund)	(I) Progress with seeding ATHOS, the soft X-ray FEL at SwissFEL **Sven Reiche (PSI)**	(I) Recent Progress in Steady-State Micro-Bunching Light Source Development **Chuanxiang Tang (Tsinghua Univ.)**	(C) Force-Neutral Adjustable Phase Undulators **Nathan Burger (RadiaBeam)**	(I) A novel single-shot characterization method for attosecond FEL pulses using self-referenced spectral interferometry **Yaozong Xiao (SARI, CAS, China)**
12.25-12.50			(C) High-repetition-rate seeded free-electron laser enhanced by self-modulation **Hanxiang Yang (Shanghai Institute of Applied Physics)**	(I) First measurements of quantum diffusion in an undulator **Sergey Tomin (DESY)**	(C) Challenges for the LCLS-II HE Instrument Suites **Eliazar Ortiz (SLAC)**	(I) Applications of Attosecond Soft-X-ray pulses to Photoemission Chronoscopy and Transient Absorption **Hans Jakob Worner (ETH Zurich)**
12.50-14.30		*Lunch break*	*Lunch break*	*Lunch break*	*Lunch break*	**close-out (ends at 13.00)**
		Session 2 - FEL theory (110 min)	**Session 5 - FEL oscillators & IR-FEL (110 min)**	**Session 8 - Novel acceleration and FEL concepts (110 min)**		
14.30-15.05		(I) Impact of space charge in externally seeded FEL **Eléonore Roussel (Lille University)**	(I) The cavity based FEL project at the European XFEL **Patrick Rauer (DESY)**	(I) Plasma accelerating modules developments for the EuPRAXIA FEL user facility **Angelo Biagioni (INFN-Laboratori Nazionali di Frascati)**	**Transfer and visit to National Centre for Nuclear Research (NCBJ)**	
15.05-15:30		(I) Three-dimensional theory of soliton-like superradiant free-electron lasers **River Robles (SLAC)**	(I) Progress towards construction of cavity-based XFEL at SLAC **Alex Halavanau (SLAC)**	(I) Reduction of the electron-beam divergence of laser wakefield accelerators by integrated plasma lenses **Arie Irman (HZDR)**		
15.30-15.55		(C) The fundamental QED Origin of Bunched Electron Beam Superradiance **Aharon Friedman (Ariel University)**	(I) Active Q-switched X-Ray Regenerative Amplifier Free-Electron Laser **Jingyi Tang (SLAC)**	(I) Stable X-ray free-electron lasers based on laser wakefield accelerators and optical undulators **Xinlu Xu (Peking Univ.)**	**or**	
15.55-16.20		(C) Predicting XFEL performance using neural networks with physics contraints **Petr Anisimov (Los Alamos National Laboratory)**	(I) FEL2024 - 41st International Free Electron Laser Conference **Wieland Schöllkopf (FHI Berlin)**	(C) Energy and brightness-boosted electron beams from plasma-based accelerators **Ahmad Fahim Habib (University of Strathclyde)** (C) Experimental efforts towards non-collinear superradiant Compton scattering **Brian Schaap (University of California)**	**sightseeing in Warsaw**	
16.20-16:50		*coffee*	***coffee and poster session 16.20-20.30***	*coffee*	**visiting the POLIN Museum**	
		FEL Prize Talks		**Session 9 -Industrial application of FELs - panel discussion**		
16.50-17.15		**Prof. Ying K. Wu (Duke University)**		**Sandra Biedron (Univ. of New Mexico;Element Areo)**		
17.15-17.40		**Prof. Brian McNeil (University of Strathclyde)**		**Raffaella Geometrante (Kyma S.p.A.Italy)**		
17.40-18.00		**Dr. Svitozar Serkez, (EuXFEL)** **Dr. Zhen Zhang (SLAC)** Advanced Schemes Developed for Free-Electron Laser Applications		**Stephen Milton (TAU Systems, Austin, Texas, United States)**	**Transfer to Warsaw**	
18.00-18.30		**Dr. Jiawei Yan (EuXFEL)**		**Erik Hosler (FylEx)**		
18.30-19.00	**Registration starts at 18.30**		**IEC Meeting**			
19.00-20.00	**Welcome Reception**		**Dinner IEC**		**Social Dinner and FEL Prize ceremony**	
20.00-21.00	**19.00-21.30**				**19.00-23.00**	
21.00-21.30						