PAUL SCHERRER INSTITUT

67<sup>th</sup> ICFA

Advanced

Workshop

FLS 2023

**Beam Dynamics** 

# Future Light Sources 2023

# Scientific Program

# Monday, August 28

MO1L	Invited Plenary   08:30-10:30   Coronado
MO1L1	<b>EuPRAXIA: The First FEL User Facility Driven by a Plasma Accelerator</b> Ralph Wolfgang Assmann – Deutsches Elektronen-Synchrotron
M01L2	Free-electron Light Interactions in Nanophotonics Charles Roques-Carmes – Stanford University
MO1L3	Production and Characterization of Hard X-rays Beyond 25 keV Ye Chen – Deutsches Elektronen-Synchrotron
MO1L4	The Challenges and Benefits of Increased Application of Permanent Magnets to Future Light Sources Joel Chavanne – European Synchrotron Radiation Facility
MO2L	Invited Plenary   11:00-12:30   Coronado
MO2L1	Future of the Multi-bend Achromat Pantaleo Raimondi – European Synchrotron Radiation Facility
MO2L2	Storage Ring-based Steady State Microbunching Alex Chao – Tsinghua University in Beijing
MO2L3	Review of Harmonic Cavities in Fourth-generation Storage Rings Francis Jamshyd Cullinan – MAX IV Laboratory Lund University
MO3B	Working Group B: Storage Ring Light Sources   14:00-16:00   Coronado
MO3B1	<b>Obtaining Picosecond X-ray Pulses on 4th Generation Synchrotron Light Sources</b> Xiaobiao Huang – SLAC National Accelerator Laboratory
MO3B2	Beam Dynamics using Harmonic Cavities with High Current per Bunch Alexis Gamelin – Synchrotron Soleil
MO3B3	Bunch-lengthening RF System Using Active Normal-conducting Cavities Naoto Yamamoto – High Energy Accelerator Research Organization Accelerator Laboratory
MO3B4	Generating High Repetition Rate X-ray Attosecond Pulses in SAPS Weihang Liu – Institute of High Energy Physics China Spallation Neutron Source
MO3A	Working Group A: Linac-based Light Sources   14:00-16:00   Orion
MO3A1	<b>Progress on SHINE Machine</b> Dong Wang – Shanghai Institute of Applied Physics
MO3A2	Status and Perspectives for the Swiss Free-Electron Laser (SwissFEL) Thomas Schietinger – Paul Scherrer Institut
MO3A3	<b>Status of the LCLS-II Superconducting Linac</b> Daniel Gonnella – SLAC National Accelerator Laboratory
MO3A4	<b>European XFEL Status Overview</b> Matthias Scholz – Deutsches Elektronen-Synchrotron

MO3A5	FLASH: Status and Upgrade			
	Mathias Vogt – Deutsches Elektronen-Synchrotron			
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- MO3A6 Recent status of PAL-XFEL MyungHoon Cho – Pohang Accelerator Laboratory
- MO3A7 Present Status of SACLA and Plans for Future Upgrades Takahiro Inagaki – RIKEN SPring-8 Center
- MO3A8 FERMI FEL Upgrade Plans, an Overview Simone Di Mitri – Elettra-Sincrotrone Trieste S.C.p.A.
- MO3A9 Comissioning Progress and Advanced FEL Experiments at the SXFEL Facility Chao Feng – Shanghai Advanced Research Institute Chinese Academy of Sciences

MO4B Working Group B: Storage Ring Light Sources | 16:30–18:00 | Coronado

- MO4B1 A Review on Injection Schemes Masamitsu Aiba – Paul Scherrer Institut
- MO4B2 The Plasma Injector for PETRA IV: Conceptual Design Report Alberto Martinez de la Ossa – Deutsches Elektronen-Synchrotron
- MO4B3 Development of a Pulsed Injection Stripline for Diamond-II Richard Fielder – Diamond Light Source Ltd

MO4C Working Group C: Compact Light Sources | 16:30–18:00 | Orion

- MO4C1 Ultra-bright Coherent Undulator Radiation Driven by Dielectric Laser Accelerator Yen-Chieh Huang – National Tsing Hua University Institute of Photonics Technology
- MO4C2 Development of a Compact Light Source Using a Two-beam-acceleration Technique Philippe Regis-Guy Piot – Northern Illinois University Department of Physics
- MO4C3 Generation of GeV Photon Energy at European X-Ray Free Electron Laser Illya Drebot – Istituto Nazionale di Fisica Nucleare Sezione di Milano

# Tuesday, August 29

TU1C	Working Group C:	Compact Light Sources	08:30–10:30	Coronado
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TU1C1 An Efficient Optimisation of a Burst Mode-Operated Fabry-Perot Cavity for Inverse Compton Scattering Sources

Vlad Musat - European Organization for Nuclear Research Beams Department (BE)

- TU1C2 Evolution of the Inverse Compton Scattering X-ray Source of the ELSA Accelerator Abel Pires – Commissariat à l'Energie Atomique et aux Energies Alternatives CEA DAM Ile de France
- TU1C3 A Compton Light Source Based on Counter Propagating Direct Laser Acceleration Channels

Ishay Pomerantz – Tel Aviv University School of Physics and Astronomy

TU1C4 The CXFEL Project at Arizona State University William Graves – Arizona State University

TU1B	Working	Group B	Storag	e Ring I	ight Sources	08:30-10:30	Orion
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TU1B1	A Highly Competitive Non-Standard Lattice for a 4th Generation Light Source With Metrology and Timing Capabilities Paul Goslawski – Helmholtz-Zentrum Berlin für Materialien und Energie GmbH Elektronen-Speicherring BESSY II
TU1B2	Low-alpha Storage Ring Design for Steady-State Microbunching to Generate EUV Radiation Zhilong Pan – Tsinghua University in Beijing Accelerator Laboratory Department of Engineering Physics
TU1B3	<b>Nonlinear Optics From Hybrid Dispersive Orbits</b> Yongjun Li – Brookhaven National Laboratory
TU1B4	Minimizing the Fluctuation of Resonance Driving Terms for Analyzing and Optimizing the Storage Ring Dynamic Aperture Zhenghe Bai – University of Science and Technology of China National Synchrotron Radiation Laboratory
TU2A	Working Group A: Linac-based Light Sources   11:00-12:30   Coronado
TU2A1	Coherent Free-electron Laser Pulses: The User Perspective Giovanni De Ninno – Elettra-Sincrotrone Trieste S.C.p.A.
TU2A2	Single Longitudinal Mode Generation in Slippage-dominated, Tapered-undulator SASE Soft X-ray FELs Dinh Cong Nguyen – xLight Incorporated
TU2A3	Opportunities and Challenges of the Hard X-ray Self-seeding System at the European XFEL Shan Liu – Deutsches Elektronen-Synchrotron MPY
TU2A4	A Low-loss 14 m Hard X-ray Bragg-reflecting Cavity, Experiments and Analysis Rachel Anne Margraf – Stanford University
TU3D	Working Group D: Key Technologies   14:00–16:00   Coronado
TU3D1	Developments in SRF Technology for Light Source Applications Daniel Gonnella – SLAC National Accelerator Laboratory
TU3D2	Highly Reliable RF Power Sources for Improvement of the Accelerator Availability Marcus Lau – TRUMPF Huettinger GmbH
TU3D3	Application of Cryo-copper Accelerating Structures Towards Future Light Sources Emilio Alessandro Nanni – SLAC National Accelerator Laboratory
TU3D4	Compact HOM-damped RF Cavity for a Next Generation Light Source Hiroyasu Ego - High Energy Accelerator Research Organization
TU3D5	Electron RF Injectors for Next Generation FELs Boris Leonidovich Militsyn – Science and Technology Facilities Council Daresbury Laboratory Accelerator Science and Technology Centre

### TU3B Working Group B: Storage Ring Light Sources | 14:00–16:00 | Orion

TU3B1	Machine Learning Applications for Performance Improvement and Developing Future Storage Ring Light Sources Simon Christian Leemann – Lawrence Berkeley National Laboratory Accelerator Technology & Applied Physics
TU3B2	Recent Developments of the Toolkit for Simulated Commissioning Thorsten Hellert – Lawrence Berkeley National Laboratory
TU3B3	<b>Pyapas: A New Framework for High Level Application Development at HEPS</b> Xiaohan Lu – Institute of High Energy Physics China Spallation Neutron Source
TU3B4	Use of Automated Commissioning Simulations for Error Tolerance Evaluation for the Advanced Photon Source Upgrade Vadim Sajaev – Argonne National Laboratory Advanced Photon Source
TU4P	Poster Session   16:00-18:00   Coronado
TU4P01	Simulation Studies of Producing Attosecond-terawatt X-ray FEL Pulses Using Irregularly Spaced Current Peaks at SwissFEL Guanglei Wang – Paul Scherrer Institut
TU4P02	Measurements of Dipole and Quadrupole Wakefields From Corrugated Structures at SwissFEL Philipp Dijkstal – Paul Scherrer Institut
TU4P03	High-repetition-rate Seeded Free-electron Laser Enhanced by Self-modulation Jiawei Yan – European XFEL GmbH
TU4P04	<b>Ultrafast FEL Generation with Optical Beat Note</b> Yaozong Xiao – Shanghai Institute of Applied Physics
TU4P05	Design of the Test Platform for High Current VHF Electron Gun Zipeng Liu – Shanghai Institute of Applied Physics
TU4P06	Generating High-Power, Frequency Tunable Coherent THz Pulse in an X-ray Free-Electron Laser for THz Pump and X-ray Probe Experiments Kaiqing Zhang – Shanghai Synchrotron Radiation Facility Shanghai Advanced Research Institute
TU4P07	<b>Design of the Beam Distribution System of SHINE</b> Si Chen – Shanghai Synchrotron Radiation Facility Shanghai Advanced Research In- stitute
TU4P08	<b>Design and Commissioning of the Beam Switchyard for the SXFEL-UF</b> Si Chen – Shanghai Synchrotron Radiation Facility Shanghai Advanced Research Institute
TU4P09	Beam Compression and Suppression of Coherent Synchrotron Radiation Effect in FODO Arc
TU4P11	Intrinsic Mono-chromatic Emission of X and Gamma-rays in Symmetric Electron-photon Beam Collisions Illya Drebot – Istituto Nazionale di Fisica Nucleare Sezione di Milano

TU4P12	Injection into XFELs, a Review of Trends and Challenges Can Davut – Cockcroft Institute The University of Manchester Physics and Astronomy Department
TU4P13	An Introduction to the UK XFEL Conceptual Design and Options Analysis David Dunning – Science and Technology Facilities Council Daresbury Laboratory Accelerator Science and Technology Centre
TU4P14	Cavity-based XFEL R&D Project Kwang-Je Kim – Argonne National Laboratory Advanced Photon Source
TU4P15	<b>Two-color XFEL Generation Using Phase Shifters of Undulators</b> MyungHoon Cho – Pohang Accelerator Laboratory
TU4P16	Transverse Optics-based Control of the Microbunching Instability Alexander Darius Brynes – Elettra-Sincrotrone Trieste S.C.p.A.
TU4P17	Non-destructive Vertical Halo-monitors on the ESRF Electron Beam Kees Bertus Scheidt – European Synchrotron Radiation Facility
TU4P18	Nonlinear Dynamics Measurements at the EBS Storage Ring Nicola Carmignani – European Synchrotron Radiation Facility
TU4P19	Evolution of Equilibrium Parameters Ramp Including Collective Effects in the Diamond-II Booster Riyasat Husain – Diamond Light Source Ltd
TU4P20	Validation of Magnet Strength Limits From Commissioning Simulations for the Diamond-II Storage Ring Hung-Chun Chao – Diamond Light Source Ltd
TU4P21	Frequency Spread and Beam-Ion Instabilities in SOLEIL II Vadim Gubaidulin – Synchrotron Soleil
TU4P23	Knot APPLE X Undulators for SLS 2.0 Thomas Schmidt – Paul Scherrer Institute Swiss Light Source
TU4P24	New Compact Modular In-vacuum Undulators for SLS2.0 Thomas Schmidt – Paul Scherrer Institute Swiss Light Source
TU4P25	<b>SLS 2.0 Machine Protection</b> Felix Armborst – Paul Scherrer Institut
TU4P26	<b>Special Operational Modes for SLS 2.0</b> Jonas Kallestrup – Paul Scherrer Institut
TU4P27	Progress of the HEPS Accelerator Construction and Linac Commissioning Cai Meng – Chinese Academy of Sciences Institute of High Energy Physics
TU4P28	Laser-Electron Phase Locking in a Steady-State Microbunching Storage Ring Xiujie Deng – Tsinghua University in Beijing Accelerator Laboratory Department of Engineering Physics
TU4P29	<b>Microbunching Radiation Fluctuation and its Applications</b> Xiujie Deng – Tsinghua University in Beijing Accelerator Laboratory Department of Engineering Physics
TU4P30	<b>Quasi-Staeady-State Microbunching</b> Xiujie Deng – Tsinghua University in Beijing Accelerator Laboratory Department of Engineering Physics

TU4P31	A Recursive Model for Laser-Electron-Radiation Interaction in Insertion Section of SSMB Storage Ring Based on Transverse-Longitudinal Coupling Scheme Cheng-Ying Tsai – Huazhong University of Science and Technology School of Electrical and Electronic Engineering
TU4P33	An Inverse-Compton Scattering Simulation Module for RF-Track Andrea Latina – European Organization for Nuclear Research Beams Department (BE)
TU4P34	<b>Recent Developments of the cSTART Project</b> Markus Schwarz – Karlsruhe Institute of Technology
TU4P35	A Compact Light Source Based on Coherent Thomson Scattering of Density Modulated Electron Bunch Si Chen – Shanghai Synchrotron Radiation Facility Shanghai Advanced Research Institute
TU4P36	Effect of Pre-bunched Relativistic Electron Beams on the Output Power in a Two-stream Free-electron Laser Nader Mahdizadeh – Islamic Azad University Sabzevar Branch
TU4P37	Reduction of Energy Jitter and Energy Spread of High-Charge Electron Bunches from Laser Plasma Accelerators

Xueyan Shi – Chinese Academy of Sciences Institute of High Energy Physics TU4P38 Burst Mode Operation in the Smart\*Light Inverse Compton Scattering X-Ray Source

Rick van den Berg – Technische Universiteit Eindhoven Department of Applied Physics

# Wednesday, August 30

#### WE1L Invited Plenary | 08:30–10:30 | Coronado

WE1L1	<b>Status and Future of XFEL Source Developments</b> Sven Reiche – Paul Scherrer Institut
WE1L2	<b>Progress of Cavity-based X-ray Free-electron Lasers</b> Zhirong Huang – SLAC National Accelerator Laboratory
WE1L3	Enabling Technology Towards Multiline Compact XFELs

- John Byrd Argonne National Laboratory
- WE1L4 Operating Liquid MetalJet X-ray Sources for Materials Research Mirko Boin – Helmholtz-Zentrum Berlin für Materialien und Energie

#### WE2A Working Group A: Linac-based Light Sources | 11:00–12:30 | Coronado

WE2A1 Modified Maxwell-Bloch Equations for X-ray Amplified Spontaneous Emission in X-ray Lasers

Kwang-Je Kim – Argonne National Laboratory Advanced Photon Source

- WE2A2 An Analytical Method for Longitudinal Phase Space Backtracking Nicholas Sigmund Sudar – SLAC National Accelerator Laboratory LCLS Department
- WE2A3 A Wiggler-based THz Source at LCLS-II and Studies for a 150-m THz Transport Line for Pump-probe Experiments Meredith Henstridge – SLAC National Accelerator Laboratory

WE2A4	Scaling of Beam Collective Effects with Bunch Charge in the CompacLlght Free-electron Laser Simone Di Mitri – Elettra-Sincrotrone Trieste S.C.p.A.
WE2C	Working Group C: Compact Light Sources   11:00-12:30   Orion
WE2C1	Population Inversion X-ray Laser Oscillator at LCLS and LCLS-II Aliaksei Halavanau – SLAC National Accelerator Laboratory
WE2C2	Harmonic Generation from keV-electron-excited Nano-grating Yen-Chieh Huang – National Tsing Hua University Institute of Photonics Technology
WE3A	Working Group A: Linac-based Light Sources   14:00-16:00   Coronado
WE3A1	<b>High Pulse Rate Experiments at the European X-ray Free-electron Laser</b> Romain Letrun – European XFEL GmbH
WE3A2	Beam on Demand for Superconducting Based Free-electron Lasers Zhen Zhang – SLAC National Accelerator Laboratory
WE3A3	Multi-FELOs Driven by a Common Electron Beam Cheng-Ying Tsai – Huazhong University of Science and Technology School of Electrical and Electronic Engineering
WE3A4	<b>Energy Recovery Linac Based Multi-pointing Fully Coherent Light Source</b> Zhen Wang – Shanghai Advanced Research Institute Chinese Academy of Sciences
WE3A5	Development of Multi-alkali Antimonides Photocathodes for High-brightness Photoinjectors Sandeep Kumar Mohanty – Deutsches Elektronen-Synchrotron DESY at Zeuthen
WE3A6	A High Brightness Travelling-wave C-Band Photogun for a Brightness Upgrade to Swissfel Thomas Geoffrey Lucas – Paul Scherrer Institute Large Research Facilities
WE3D	Working Group D: Key Technologies   14:00–16:00   Orion
WE3D1	Femtosecond Synchronization of Large Scale FELs - Achievements, Limitations and Mitigation Paths Holger Schlarb – Deutsches Elektronen-Synchrotron
WE3D2	<b>Advanced Electron Beam Diagnostics for FELs</b> Patrick Krejcik – SLAC National Accelerator Laboratory
WE3D3	<b>Beam Diagnostics for Ultra-low Emittance Storage Rings</b> Volker Schlott – Paul Scherrer Institut
WE4P	Poster Session   16:00-18:00   Coronado
WE4P01	Numerical Simulation Studies of Superconducting Afterburner Operation for European XFEL Christoph Lechner – European XFEL GmbH
WE4P02	<b>High-Duty-Cycle Operations at European XFEL</b> Matthias Scholz – Deutsches Elektronen-Synchrotron

WE4P04	Intra-train RF Modulations for Interleaved FEL Beam Delivery at the European XFEL Bolko Beutner – Deutsches Elektronen-Synchrotron MPY
WE4P05	Self-seeded Free-electron Lasers with Orbital Angular Momentum Jiawei Yan – European XFEL GmbH
WE4P06	Bayesian Optimization-driven Automated Commissioning of X-ray Free-electron Lasers Jiawei Yan – European XFEL GmbH
WE4P07	Longitudinal Phase Space Diagnostics with Corrugated Structure at the European XFEL Philipp Dijkstal – Deutsches Elektronen-Synchrotron
WE4P08	Longitudinal Phase Space Manipulation Studies for the Generation of Short X-ray FEL Pules at the European XFEL Philipp Dijkstal – Deutsches Elektronen-Synchrotron
WE4P09	Terahertz Radiation and Joule Heating of Corrugated Structure at Shine Facility Jun-Jie Guo – Zhangjiang Lab
WE4P10	<b>Cavity-based X-ray Free-electron Laser Proposal for the SHINE</b> Nanshun Huang – Zhangjiang Lab
WE4P11	Automatic Online Optimization at the SXFEL Facility Nanshun Huang – Zhangjiang Lab
WE4P12	<b>Upgrades of High Level Applications on Shanghai Soft X-ray FEL facility</b> Hang Luo – Shanghai Advanced Research Institute Chinese Academy of Sciences
WE4P13	Physics Design and Beam Dynamics Optimization of the SHINE Accelerator Duan Gu – Shanghai Advanced Research Institute Chinese Academy of Sciences
WE4P14	Progress of the X-Ray Self-seeding Monochromator at the SHINE Tao Liu – Shanghai Advanced Research Institute Chinese Academy of Sciences
WE4P15	Multi-color FEL Generation Through a Chirped Electron Beam Bunch Train Zheng Qi – Shanghai Advanced Research Institute Chinese Academy of Sciences
WE4P17	<b>Design Concept for a High Repetition Rate VUV FEL</b> Pavel Evtushenko – Helmholtz-Zentrum Dresden-Rossendorf Institute of Radiation Physics Radiation Source ELBE
WE4P18	Preliminary Design of Higher-Order Achromat Lattice for the Upgrade of the Taiwan Photon Source Nuan-Ya Huang – National Synchrotron Radiation Research Center
WE4P19	Study of Orbit Correction by Machine Learning at the TPS Storage Ring Mau-Sen Chiu – National Synchrotron Radiation Research Center
WE4P20	Alignment Results of Tandem EPUs at the Taiwan Photon Source Yi-Chih Liu – National Synchrotron Radiation Research Center
WE4P21	Some Beam Dynamic Issues in the HALF Storage Ring Jingyu Tang – University of Science and Technology of China School of Nuclear Science and Technology
WE4P22	<b>Optics Measurements Based on 3D-Driven Beam Excitation in PETRA III</b> Lukas Malina – Deutsches Elektronen-Synchrotron MPY
WE4P23	Python Library for Simulated Commissioning of Storage-ring Accelerators Lukas Malina – Deutsches Elektronen-Synchrotron MPY

WE4P24	Optics for an Electron Cooler for the EIC Based on an Electron Storage Ring Jorg Kewisch – Brookhaven National Laboratory Collider-Accelerator Department
WE4P25	Nonlinear Dependence of Storage Ring Emittance on Chromaticity Jingyi Tang – SLAC National Accelerator Laboratory
WE4P26	<b>High Average Power EUV from FEL Oscillator in Storage Ring</b> Changchao He – Shanghai Institute of Applied Physics
WE4P27	Simulation Study of S-Bend Photocathode Gun for 4th Generation Storage Ring in Korea Woo Jun Byeon – Pohang Accelerator Laboratory
WE4P29	Design Study of a Booster Ring for a Fourth-Generation Storage Ring Light Source Chong Shik Park – Korea University Sejong Campus
WE4P31	Deterministic Approach to the Lattice Design of BESSY III Bettina Christa Kuske – Helmholtz-Zentrum Berlin für Materialien und Energie
WE4P32	<b>Quasi-Invariants Based Technique to Increase Dynamical Aperture</b> Jorge Fuentes – Universidad Nacional Autónoma de México Instituto de Ciencias Físicas
WE4P33	Design of 166.6 MHz HOM Damped Copper Cavity for the Southern Advanced Photon Source Junyu Zhu – Chinese Academy of Sciences Institute of High Energy Physics
WE4P34	Cathode-to-injection Simulation of the Advanced Photon Source lLnac Philippe Regis-Guy Piot – Northern Illinois University Department of Physics
WE4P36	The Cryogenic Undulator Upgrade Programme at Diamond Light Source Zena Patel – Diamond Light Source Ltd
WE4P37	Development of Laser Interferometer for Hall Probe Alignment and Measurement of Undulator Saif Mohd Khan – Devi Ahilya University School of Physics

WE4P38 Pulsed Wire Measurement of 20 mm Period Hybrid Undulator and Effects of Dispersion Saif Mohd Khan – Devi Ahilya University School of Physics

## Thursday, August 31

TH1D	Working Group D: Key Technologies   08:30–10:30   Coronado
TH1D1	Application of Superconducting Undulator Technology for Hard X-ray Production at European XFEL Johann Eduardo Baader – European XFEL GmbH
TH1D2	Bulk Superconductor and its Application for Insertion Device Toshiteru Kii – Kyoto University Institute of Advanced Energy
TH1D3	SCU Development at the LCLS for Future FELs Patrick Krejcik – SLAC National Accelerator Laboratory
TH1D4	Bi-periodic Undulator: Innovative Insertion Device for SOLEIL II Angela Potet – Synchrotron Soleil

TH2A	Working Group A: Linac-based Light Sources   11:00–12:30   Orion
TH2A0	Short Free-electron Laser Pulses: The User Perspective Christoph Bostedt – Paul Scherrer Institut
TH2A1	Dechirper System for Fresh-slice Applications at the European XFEL Weilun Qin – Deutsches Elektronen-Synchrotron
TH2A2	Generation of Intense Attosecond Pulses at the European XFEL Jiawei Yan – European XFEL GmbH
TH2A3	<b>Progress on Fresh-slice Multi-stage Amplification at SwissFEL</b> Guanglei Wang – Paul Scherrer Institut
TH2C	Working Group C: Compact Light Sources   11:00-12:30   Coronado
TH2C1	The COXINEL Seeded Free Electron Laser Driven by the Laser Plasma Accelerator at HZDR Marie-Emmanuelle Couprie – Synchrotron Soleil
TH2C2	Development of Laser-Driven Plasma Accelerator Undulator Radiation Source at ELI-Beamlines Alexander Yu. Molodozhentsev – Czech Republic Academy of Sciences Institute of Physics
TH2C3	A Novel X-ray Free-electron Laser Scheme Based on Cascaded Laser Wakefield Accelerators Fei Li – Tsinghua University in Beijing Accelerator Laboratory Department of Engineering Physics
TH3B	Working Group B: Storage Ring Light Sources   14:00–16:00   Coronado
TH3B1	Development of the In-vacuum APPLE II Undulators at HZB Atoosa Meseck – Helmholtz-Zentrum Berlin für Materialien und Energie GmbH Elektronen-Speicherring BESSY II
TH3B2	Novel X-Ray Beam Position Monitor for Coherent Soft X-Ray Beamlines Boris Podobedov – Brookhaven National Laboratory National Synchrotron Light Source II
TH3B3	Transverse Gradient Undulator for a Storage Ring X-Ray Free-Electron Laser Oscillator Kwang-Je Kim – Argonne National Laboratory Advanced Photon Source
TH3B4	Generation of Multi X-Ray Pulses with Tunable Separation in Electron Storage Rings Haisheng Xu – Chinese Academy of Sciences Institute of High Energy Physics
TH3D	Working Group D: Key Technologies   14:00–16:00   Orion
TH3D2	Beam losses and radiation studies for advanced operation schemes at the European XFEL Shan Liu – Deutsches Elektronen-Synchrotron MPY
TH3D3	How Can Machine Learning Help Future Light Sources? Andrea Santamaria Garcia – Karlsruhe Institute of Technology

TH3D4 DFCSR: A Fast Calculation of 2D/3D Coherent Synchrotron Radiation in Relativistic Beams

Jingyi Tang – SLAC National Accelerator Laboratory

- TH3D5 Building Digital Models with thor\_scsi: An Evolutionary Approach Pierre Schnizer – Helmholtz-Zentrum Berlin für Materialien und Energie GmbH Elektronen-Speicherring BESSY II
- TH4A Working Group A: Linac-based Light Sources | 16:30–18:00 | Coronado
- TH4A1 Progress Towards X-ray Free-electron Laser Driven by Plasma Wakefield Accelerator at SXFEL

Fei Li – Tsinghua University in Beijing Accelerator Laboratory Department of Engineering Physics

- TH4A2 A Compact Inverse Compton Scattering Source Based on X-band Technology and Cavity-enhanced High Average Power Ultrafast Lasers Andrea Latina – European Organization for Nuclear Research Beams Department (BE)
- TH4A3 An Active Q-switched X-ray Regenerative Amplifier Free-electron Lasers Jingyi Tang – SLAC National Accelerator Laboratory
- TH4A4 A Proposal for Generating Fully Coherent X-ray FEL with Femtosecond Pulse Based on Fresh-Slice Zhangfeng Gao – Shanghai Synchrotron Radiation Facility Shanghai Advanced Research Institute

#### TH4D Working Group D: Key Technologies | 16:30–18:00 | Orion

- TH4D1 Overview and Challenges of the Vacuum Systems of Diffraction Limited Storage Rings Marek Jerzy Grabski – MAX IV Laboratory Lund University
- TH4D2 An Ultra-high Vacuum, High-gradient RF Gun and Advanced Photocathode Studies Renkai Li – Tsinghua University in Beijing Accelerator Laboratory Department of Engineering Physics
- TH4D3 Status of Advanced Photocathodes for SRF Guns Rong Xiang – Helmholtz-Zentrum Dresden-Rossendorf Institute of Radiation Physics Radiation Source ELBE

#### Friday, September 1

FR1M Working Group Summary | 08:30–10:30 | Coronado

FR2M Working Group Summary | 11:00–12:30 | Coronado