

Session Program

May 19 - 24, 2024



IPAC'24 - 15th International Particle Accelerator Conference

Monday Poster Session

Music City Center
201 Rep. John Lewis Way S, Nashville, TN 37203, USA

Mon, May 20

4:00 PM

Monday Poster Session: MOPC

Poster Session | Location: MCC Exhibit Hall A, Country

Fabrication and high-gradient testing of an X-band phase shifter for VIGAS

Speaker

Qiang Gao

Status of the commissioning of the X-band injector prototype for AWAKE Run 2c

Speaker

Edda Gschwendtner

A new baseline layout for the FCC-hh ring

Speaker

Gustavo Perez-Segurana

Progress on the design of the interaction region of the Electron-Ion Collider EIC

Speaker

Holger Witte

Transfer learning for field emission mitigation in CEBAF SRF cavities

Speaker

Kawser Ahammed

Luminosity maximization in a small vertex region at RHIC

Speaker

Kiel Hock

Beam commissioning of the EIC with detector

Speaker

Alexei Blednykh

Design Updates to the EIC Electron Storage Ring Lattice

Speaker

Derong Xu

Capture cavities for the CW polarized positron source Ce⁺BAF

Speaker

Shaoheng Wang

Advancing electron injection dynamics and mitigation approaches in the Electron-Ion Collider's swap-out injection scheme

Speaker

Derong Xu

Final physics design of proton improvement Plan-II at Fermilab

Speaker

Abhishek Pathak

ZDC effective cross section for Gold-Gold Collisions During RHIC'S Run 16**Speaker**

Kirsten Drees

Fabrication and low-power testing of an X-band mode converter for VIGAS**Speaker**

An Li

Optimization design of photoneutron source for detecting dissolved substances in aqueous solutions**Speaker**

Chunguang Zong

Design of X-band distributed-coupling accelerating structure**Speaker**

Mr Qingzhu Li

Single line ERL permanent magnet FFA accelerator for LHeC**Speaker**

Dejan Trbojevic

Study of orbital effects on EIC detector synchrotron radiation background**Speaker**

Chuyu Liu

Establishing a new class of high-current accelerator-driven neutron sources with the HBS Project**Speaker**

Klaus Kumpel

Numerical methods for emittance computation from luminosity**Speaker**

Matteo Rufolo

Development of an S-band multi-beam accelerator for stationary CT application**Speaker**

Mr Qingzhu Li

Lattice optimization of RF electron linac designed for VEGA LCS gamma-ray source**Speaker**

Piotr Tracz

Permanent magnet electron energy synchrotron 2.5-18 GeV with fixed betatron tunes**Speaker**

Dejan Trbojevic

Eddy current shielding of the magnetic field ripple in the EIC electron storage ring vacuum chambers**Speaker**

Boris Podobedov

Performance test for single-spoke resonator superconducting cavities in RAON

Speaker
Heetae Kim

Simulated impact of the HL-LHC beam on a graphite target

Speaker
Dr John Heron

Computational simulations and beamline optimizations for an electron beam degrader at CEBAF

Speaker
Victor Lizárraga-Rubio

Mechanical design and 3-D coupled RF, thermal-structural analysis of the quarter wave stub for 197 MHz crab cavity

Speaker
Jean Clifford Brutus

Polarization preservation methods for the Electron Storage Ring of the EIC

Speaker
Matthew Signorelli

Recycling magnets for the EIC electron storage ring

Speaker
Harshita Singh

Development of FFA RLA design concept

Speaker
Vasiliy Morozov

Mechanical analysis and design for the LCLS-II-HE soft X-Ray undulator reconfiguration

Speaker
Philip Mallon

Bunch compression with a beam energy control unit consisting of DBA structures

Speaker
Liuyang Wu

Operation of the LHC during the 2023 proton run

Speaker
Andrea Calia

Optimization of beam emittance under the influence of geomagnetic field

Speaker
Zihan Zhu

Toward a long-lifetime polarized photoelectron gun for the Ce+BAF positron source

Speaker
Max Bruker

Weak-strong beam-beam simulation with crab cavity noises for the hadron storage ring of the Electron-Ion Collider

Speaker
Derong Xu

Design and test of a S band TW buncher for the injector linac of HEPS

Speaker
Zheng Sun

Simulations of positron capture at Ce+BAF

Speaker
Andriy Ushakov

Studies of space-charge compensation of positive ions by creating time-dependent secondary electrons in low-energy beam transport line

Speaker
Emre Cosgun

Commissioning results of third C75 cryomodule for CEBAF

Speaker
Iresha Senevirathne

R&D of X-band deflecting structure applied on SHINE

Speaker
Jianhao Tan

The EIC accelerator: design highlights and project status

Speaker
Sergei Nagaitsev

Beam loss mitigation in H- linac

Speaker
Yong Liu

Expanding the CERN ion injector chain capabilities: new beam dynamics simulation tools for future ion species

Speaker
Elias Waagaard

Initial results from 35 keV H+ beam at the LANL RFQ test stand

Speaker
Remington Thornton

Towards large phase space beams at the CEBAF injector

Speaker
Amy Sy

Magnetic focusing architecture for a compact electron buncher

Speaker
Kevin Shipman

Evolution of special LHC optics configurations Run 3 update

Speaker
Ilias Efthymiopoulos

Dynamic aperture of the EIC electron storage ring

Speaker
Matthew Signorelli

Crossing angle implementation for luminosity maximization in a narrow vertex region in RHIC operation

Speaker
Chuyu Liu

Development of normal conducting heavy ion linac in China

Speaker
Xuejun Yin

Global betatron coupling compensation for the hadron storage ring of the Electron-Ion Collider

Speaker
Derong Xu

Study of the corrector systems for the new lattice of the CERN hadron-hadron Future Circular Collider

Speaker
Gustavo Perez-Segurana

The hadron storage ring lattice of the Electron-Ion Collider

Speaker
Derong Xu

LHC 2023 ion optics commissioning

Speaker
Vittorio Ferrentino

Study of interfering spin resonances in multi-snake lattice

Speaker
Dr Vahid Ranjbar

RPI LINAC refurbishment control system engineering plan

Speaker
Tina Krzic

Transversely driven coherent beam oscillations in the EIC electron storage ring

Speaker
Boris Podobedov

Generating Super-Gaussian distribution and uniform sliced energy spread bunch for EIC strong hadron cooling

Speaker
Erdong Wang

High bunch charge linacs design for the FCC-ee project

Speaker
Simona Bettoni

Design and status of SHINE injector

Speaker
Zenggong Jiang

Local and global betatron coupling correction based on beam position measurements in RHIC

Speaker
Chuyu Liu

RHIC Au-Au operation at 100 GeV in Run 23

Speaker
Travis Shrey

LHC optics commissioning in 2023 and 2024

Speaker
Tobias Persson

Wide range tune scan for the hadron storage ring of the Electron-Ion Collider

Speaker
Derong Xu

Correlating start-of-ramp losses with beam observables at flat-bottom in the LHC

Speaker
Michail Zampetakis

Sextupole RDTs in the LHC at injection and in the ramp

Speaker
Tobias Persson

Dust-induced beam losses in the Large Hadron Collider

Speaker
Philippe Belanger

The design progress of a high charge low energy spread polarized pre injector for Electron Ion Collider

Speaker
Erdong Wang

A study for emittance growth compensation by space charge effects at the injector of KEK-STF after dry ice cleaning of the RF gun

Speaker
Sayantan Mukherjee

Correction of the detector solenoid effect in the hadron storage ring of the Electron-Ion Collider

Speaker
Vasiliy Morozov

Enhancing beam intensity in RHIC EBIS beamline via GPTune machine learning-driven optimization

Speaker
Xiaofeng Gu

Status of the second interaction region design for Electron-Ion Collider

Speaker
Bamunuvita Gamage

Feasibility study of the Alice fixed-target experiment with HL-LHC lead ion beams based on crystal-assisted beam Halo splitting

Speaker
Marta Monikowska

Assessing global crabbing scheme feasibility for Electron-Ion Collider

Speaker
Derong Xu

New high power linear accelerator ABC and platform

Speaker
Dr Andrey Mishin

BAGELS: A general method for minimizing the rate of radiative depolarization in electron storage rings

Speaker
Matthew Signorelli

Electromagnetic and beam dynamics modeling of LANSCE front-end elements with CST studio

Speaker
Sergey Kurennoy

Luminosity effects due to dependent heavy-tailed beams

Speaker
Elleanor Lamb

Haissinski distribution of electron beam in Electron-Ion Collider and its impact on the hadron beam

Speaker
Yue Hao

Machine interlock system for accelerator section of PAL-XFEL

Speaker
YoungJin Suh

6:00 PM

4:00 PM

Monday Poster Session: MOPG

Poster Session | Location: MCC Exhibit Hall A, Bluegrass

Development of X-ray laser oscillator

Speaker
Dr Aliaksei Halavanau

Calculation of focal spot of secondary X-rays generated by high-energy electron beam bombarding of heavy metal targets

Speaker
Boyuan Feng

Different scenarios for generating coherent THz radiation based on a compact electron accelerator

Speaker
Weihang Liu

Attosecond research at the Linac Coherent Light Source

Speaker
Agostino Marinelli

Conceptual facility design of the Dresden Advanced Light Infrastructure

Speaker
Dr Ulf Lehnert

Numerical simulations of harmonic lasing at SASE2 beamline of European XFEL

Speaker
Christoph Lechner

Start-to-end simulation of second hard X-ray beamline at the PAL-XFEL and plans of R&D activities on high-brightness XFEL generation

Speaker
Seongyeol Kim

Beam-based alignment simulations for the Future Circular Collider electron lattice

Speaker
Xiaobiao Huang

Thermoelastic response of Bragg crystals under MHz thermal loading

Speaker
Peifan Liu

Linking edge-ML X-ray diagnostics and adaptable photoinjector laser shaping for leveraging the capabilities of LCLS-II

Speaker
Jack Hirschman

Status of cavity-based X-ray free electron laser project at SLAC

Speaker
Dr Aliaksei Halavanau

Mode-locked soft x-ray FEL generation based on HHG seed

Speaker
Zheng Qi

PoIFEL - polish free electron laser under construction

Speaker
Wojciech Grabowski

FLASH status - FEL user facility between two upgrade shutdowns

Speaker
Mathias Vogt

High level software for operating an EEHG FEL

Speaker
Enrico Allaria

First commissioning of the corrector quadrupoles in the 2nd bunch compression chicane at FLASH**Speaker**

Mathias Vogt

EUV FEL light source based on energy recovery linac with on-orbit laser plasma injection**Speaker**

Andrei Seryi

Ultrafast free-electron laser generation with optical beat note**Speaker**

Yaozong Xiao

Plasma accelerator based free electron laser program at ELI-ERIC (ELI-Beamlines)**Speaker**

Alex Whitehead

Status update of the SASE3 variable polarization project at the European XFEL**Speaker**

Suren Karabekyan

Design and optimization of an ERL-based X-ray FEL**Speaker**

Fanglei Lin

Compact high average power THz source driven by thermionic RF gun**Speaker**

Yining Yang

Status of the seeding upgrade for FLASH2020+ project**Speaker**

Mathias Vogt

Compton gamma-ray production enabled by VUV FEL operating around 170 nm**Speaker**

Ying Wu

Dispersion orbit detection by orbit harmonic analysis and potential applications**Speaker**

Fernando Sannibale

Simulations of dielectric-lined waveguide seeding option for THz FEL at PITZ**Speaker**

Xiao-Yang Zhang

Harmonic generation from hard X-ray self-seeded free-electron laser**Speaker**

Christoph Lechner

Separately tunable two-color lasing at the FHI FEL**Speaker**

Alan Todd

Superradiance in X-ray free-electron lasers**Speaker**

Agostino Marinelli

Study of the radiation field from multiple out-coupling holes in an infrared free electron laser oscillator**Speaker**

Mengqi Xia

Beam dynamics of twin-bunch generation in the LCLS-II**Speaker**

Dr Zihan Zhu

High-energy and narrow-bandwidth X-ray regenerative amplifier FEL design for LCLS-II-HE**Speaker**

Madison Singleton

LCLS multi-bunch improvement plan: recent progress and future work**Speaker**

Dr Aliaksei Halavanau

Undulator radiation of single electrons: coherence length and quantum-optical properties**Speaker**

Giulio Stancari

First experimental demonstration of fully structured light in an EUV FEL**Speaker**

Jenny Morgan

Pulsed Compton Gamma-ray beam generation using pulsed FEL beam**Speaker**

Stepan Mikhailov

Development progress of a tunable terahertz free electron laser based on a pre-bunched linear accelerator**Speaker**

Shaoxiang Dong

Simulation study for nanometer-scale modulation transfer in emittance exchange beamline**Speaker**

Gwanghui Ha

A faster algorithm to compute lowest order longitudinal and transverse resistive wall wake for non-ultrarelativistic case**Speaker**

Mr Jiazhen Tang

Conceptual design of the laser-plasma accelerator based soft X-ray Free Electron Laser

Speaker

Alex Whitehead

Beam dynamics study for a high-repetition-rate infrared terahertz FEL facility**Speaker**

Yimin Yang

A compact water window X-ray source based on inverse Compton scattering**Speaker**

Javier Olivares Herrador

Extreme pulse compression for impulsive ionization of valence wavepackets**Speaker**

David Cesar

Generation of sawtooth correlation for bunching factor enhancement**Speaker**

Gwanghui Ha

Characterization of low-emittance electron beams generated by a new photocathode drive laser system NEPAL at the European XFEL**Speaker**

Dr Ye Chen

Towards attosecond x-ray sources driven by infrared free-electron laser oscillators**Speaker**

Ryoichi Hajima

Study on high energy coupling efficiency of laser-electron interaction via vortex beam**Speaker**

Xiazhen Xu

Characterization of FEL mirrors with long ROCs**Speaker**

William Deloaze

Optimization of ELSA electron beam transport for its inverse Compton scattering X-ray source**Speaker**

Abel Pires

Overview of R&D activities in the production of high energy photon beams for future user experiments beyond 25 keV at the EuXFEL**Speaker**

Zihan Zhu

Simulation of CXFEL with MITHRA code**Speaker**

Elena Ros

VUV diagnostics for oscillator FEL operation from 200 nm to 155 nm

Speaker
Stepan Mikhailov

Stability and scalability of superradiant amplification in attosecond X-ray free-electron lasers

Speaker
River Robles

An experimental proposal for the strong-filed Terahertz generation at SXFEL facility

Speaker
Kaiqing Zhang

Towards short-pulse generation at FLASH via laser-assisted electron bunch manipulation

Speaker
Philipp Amstutz

Electron-emitted THz radiation optimized with a model-less algorithm

Speaker
Fabio Galassi

Early lasing at LCLS and its implications for future cavity-based XFELs

Speaker
Mario Balcazar

Low-alpha operation of the IOTA storage ring

Speaker
Jonathan Jarvis

The CXFEL project at Arizona State University

Speaker
William Graves

Electron bunch spacing for the FEL generation with a laser heater and collimators at PAL-XFEL

Speaker
Chi Hyun Shim

Commissioning of spectral diagnostics and future concepts for the PAX experiment at FACET-II

Speaker
Rafi Hessami

New opportunities for excellent FEL experiments at FLASH

Speaker
Mathias Vogt

Characterization of a single-pass high-gain THz FEL at PITZ

Speaker
Xiao-Yang Zhang

Terawatt-scale attosecond soft X-ray pulses from a superradiant free-electron laser cascade

Speaker
River Robles

Generating tunable X-ray optical frequency combs using a free-electron laser

Speaker
Lanpeng Ni

A seeded THz free electron laser with an overmoded waveguide to reduce diffraction

Speaker
Muhammed Zuboraj

X-ray optics and diagnostics for the cavity-based X-ray free-electron laser project

Speaker
Peifan Liu

Integrating sustainable computational strategies in light source accelerator upgrades

Speaker
Mathias Vogt

The UK XFEL conceptual design and options analysis: mid-term update

Speaker
Storm Mathisen

Polarization performance of a 3 GeV electron booster

Speaker
Dr Vahid Ranjbar

Effects of the ALBA slab movement on ALBA-II

Speaker
Michele Carlà

Electron beam shaping by laser heater for attosecond pulse duration X-ray free electron laser

Speaker
Kookjin Moon

An update on EIC rapid cycling synchrotron optics

Speaker
Dr Vahid Ranjbar

Coherent spectrotemporal shaping of fresh slice attosecond X-ray free-electron lasers

Speaker
River Robles

Experimental characterization of the sensitivity of echo-enabled harmonic generation to operating parameters

Speaker
Carlo Spezzani

Challenges and mitigation measures for synchrotron radiation on the FCC-ee arcs

Speaker

Alessandro Frasca

FERMI plans for a 2 nm seeded FEL**Speaker**

Enrico Allaria

6:00 PM

4:00 PM

Monday Poster Session: MOPR**Poster Session** | **Location:** MCC Exhibit Hall A, Rock 'n Roll**Chemical robustness enhancement of negative electron affinity photocathodes through cesium-iodide deposition****Speaker**

Samuel Levenson

A compact electron accelerator for muon production**Speaker**

Zachary Liptak

Test of a metamaterial structure for structure-based wakefield acceleration**Speaker**

Dillon Merenich

Enabling access to research capabilities through Brookhaven's accelerator science & technology initiative**Speaker**

Mark Palmer

First results from the EuPRAXIA doctoral network: paving the way for next-generation particle accelerators**Speaker**

Prof. Carsten Welsch

Instability of asymmetric electron drive beams in hollow plasma channels**Speaker**

Rafael Yrjosmiel Legaspi

Fabrication and testing of mode couplers for a 180 GHz colinear wakefield accelerator**Speaker**

Branko Popovic

Fabrication of THz corrugated structure using X-ray based lithography**Speaker**

Seunghwan Shin

An ultimate single-ion source using a Coulomb crystal in a Paul trap**Speaker**

Kento Muroo

Fixed tunes fast cycling permanent magnet proton FFA synchrotron**Speaker**

Dejan Trbojevic

Ion-ion collisions in plasma wakefield accelerators**Speaker**

Dr Monika Yadav

Observation of skewed electromagnetic wakefields in an asymmetric structure driven by flat electron bunches**Speaker**

Walter Lynn

Studies of photoemission in the high-field regime in an X-band photoemission RF gun**Speaker**

Gongxiaohui Chen

Results and plans for run 2 of the advanced proton driven plasma wakefield acceleration experiment AWAKE**Speaker**

Edda Gschwendtner

Simulation study for GeV electron beam generation in LWFA using laser-ablated metal plasma**Speaker**

Sang Yun Shin

Transport and dosimetry of laser-driven proton beams for radiobiology at the BELLA center**Speaker**

Jared De Chant

Highly charged Mg ion production using laser ablation ion source at Brookhaven National Laboratory**Speaker**

Madhawa Horana Gamage

Investigation of plasma stability of the prototype plasma lens for positron matching**Speaker**

Lewis Boulton

Advanced accelerator concepts for dark sector searches and fast muon acceleration**Speaker**

Frank Zimmermann

Electron beam dynamics simulations in electron gun and fabrication of cold field emitters by electrochemical etching**Speaker**

YuanYuan Qin

Beam transport and diagnostics study for a space plasma experiment at MITHRA**Speaker**

Pratik Manwani

Progress towards high-quality, high-repetition-rate plasma acceleration at FLASHForward**Speaker**

Lewis Boulton

Optimizing plasma-downramp profiles and beam transport for emittance preservation in multi-stage plasma accelerators**Speaker**

Marco Garten

Start-to-end simulation of high-gradient, high-transformer ratio structure wakefield acceleration with TDC-based shaping**Speaker**

Gwanghui Ha

Active stabilization in high-power laser plasma accelerators**Speaker**

Jeroen van Tilborg

Investigation of beam generation in laser back-illumination mode using metal cathodes of varying thickness in a photocathode DC electron gun**Speaker**

Rui Zou

Design and construction of the photocathode vacuum suitcase for CARIE test facility**Speaker**

Anna Alexander

Extraction of Coulomb crystals with limited emittance growth**Speaker**

Stephen Brooks

Recent developments and future plans for Brookhaven's Accelerator Test Facility**Speaker**

Igor Pogorelsky

Quest for an optimal spin-polarized electron source for the Electron-Ion Collider**Speaker**

Jyoti Biswas

Microbunching instability test for emittance exchange-based photoinjector**Speaker**

Gwanghui Ha

Particle motion in spatio-spectrally iso-diffracting ultrabroadband pulsed beams**Speaker**

George Hine

Unusual electron emission characteristics of CeB6 cathodes**Speaker**

Shu Takagi

Simulating the transverse probing of laser-driven plasma wakefields using ultrarelativistic electrons**Speaker**

Evan Trommer

Experimental investigation of zero transverse force modes in sub-THz dielectric lined waveguide**Speaker**

Cassandra Phillips

Particle-in-cell modeling of low-temperature plasma ion sources for ion implantation**Speaker**

Seth Veitzer

High gradient C-band cryogenic copper silver structures**Speaker**

Ankur Dhar

Neutron production using compact linear electron accelerators**Speaker**

Javier Olivares Herrador

Laser-plasma injector for an electron storage ring**Speaker**

Andreas Maier

Optically-generated plasma lens for focusing relativistic electron beams**Speaker**

Leah Hartman

Cooling demonstrator target and pion capture study**Speaker**

Rohan Kamath

Optimization of laser coupling into optically field ionized plasma channels for laser-plasma acceleration**Speaker**

Josh Stackhouse

Particle beam-driven wakefield in carbon nanotubes: hydrodynamic model vs PIC simulations**Speaker**

Juan Rodríguez Pérez

Progress on high-power generation using sub-THz corrugated waveguide**Speaker**

Gwanghui Ha

Evaluation of ultrafast THz near-fields for electron streaking**Speaker**

Annika Gabriel

Alternative negative electron affinity activation studies at HERACLES

Speaker

Samuel Levenson

Electron acceleration by Laguerre-Gaussian pulse in relativistic-ponderomotive regime of magnetoplasma**Speaker**

Arvinder Singh

Design of prototype magnet for FETS-FFA**Speaker**

Stephen Brooks

Status of electron acceleration experiments at the BELLA center**Speaker**

Anthony Gonsalves

Flat beam transport for a PWFA experiment at AWA**Speaker**

Pratik Manwani

Development of liquid lithium target in crucible for laser ion source**Speaker**

Shunsuke Ikeda

FFA@CEBAF beam transport error and tolerance simulation studies**Speaker**

Donish Khan

Tunable laser Doppler spectroscopy of LANSCE H- ion source**Speaker**

Charles Rohde

Reduction of dark current at cryogenic temperatures in a high gradient photogun**Speaker**

Gerard Lawler

Compact, quality-preserving energy booster for intense laser-plasma ion sources**Speaker**

Axel Huebl

Empirical modeling of the photocurrent time-dependence in co-deposition activation procedures for GaAs photocathodes**Speaker**

Maximilian Herbert

An overview of spin-polarized photocathode research at Cornell University**Speaker**

Samuel Levenson

Current status of the FFA@CEBAF energy upgrade**Speaker**

Donish Khan

UV-Soft X-ray betatron radiation characterization from laser-plasma wakefield acceleration**Speaker**

Daniele Francescone

Matching and guiding of an laser plasma accelerated electron beam in a undulator with FODO lattice**Speaker**

Samuel Barber

High-efficiency traveling-wave accelerating structure with ceramic insertion**Speaker**

Haoran Xu

Preparation for Realisation of External Electron Injection for AWAKE Run 2b**Speaker**

Edda Gschwendtner

Automated emittance and energy gain optimization for plasma wakefield acceleration**Speaker**

Mason Stobbe

Optical pump generation for long-wave infrared lasers for advanced acceleration**Speaker**

William Li

E-320 at SLAC**Speaker**

Rafi Hessami

Injection of collider-quality e-beams in plasma accelerators**Speaker**

Navid Vafaei-Najafabadi

Design, fabrication, and testing of a W-band corrugated waveguide for Wakefield acceleration**Speaker**

Brendan Leung

A compact source of positron beams with small thermal emittance**Speaker**

Rafi Hessami

Lattice design of a pulsed synchrotron for a muon collider fitting within the Fermilab site boundary**Speaker**

Kyle Capobianco-Hogan

Design and modeling of HOFI plasma channels for laser plasma accelerators**Speaker**

Nathan Cook

Demonstration of enhanced quantum efficiency from optical interference in alkali antimonide photocathodes**Speaker**

Chad Pennington

Development of inductive high temperature oven (HTO) at the facility for Rare Isotope Beams**Speaker**

Haoyu Cheng

Ultrafast electron diffraction with adjustable camera length at high energies**Speaker**

Paul Denham

Fabrication study of corrugated structure for sub-THz by stacking disks**Speaker**

Hyung-sup Kong

Compact, all-optical positron production and collection scheme**Speaker**

Davide Terzani

Development of a de-focusing space charge lens for positive ion beams**Speaker**

Thomas Dönges

Progress on the capillary plasma discharge source at UCLA**Speaker**

Pratik Manwani

PHOTocathode Epitaxy and Beam Experiments laboratory at Cornell: current status and future work**Speaker**

Elena Echeverria

Field mapping of CO₂-laser-driven LWFA in blowout regime using electron beam probe at low density**Speaker**

Apurva Gaikwad

High gradient operation of cryogenic C-band RF photogun at UCLA**Speaker**

Gerard Lawler

Quadrupole field instability in cylindrical dielectric wakefield accelerators**Speaker**

Beatriz Higuera Gonzalez

High-intensity pulse propagation in multi-GeV laser plasma accelerator stages**Speaker**

Alex Picksley

Experimental characterization of the timing-jitter effects on a beam-driven plasma wakefield accelerator

Speaker
 Francesco Demurtas

Research and application of chromatic effect in laser-driven proton therapy

Speaker
 Kai Wang

Framework for a multiphysics model of optical field emission from extended nanostructures

Speaker
 Joshua Mann

Comparison of flat beam PWFA analytic model with PIC simulations

Speaker
 Pratik Manwani

Preliminary tests for the diffusion bonding of high gradient cryogenic radio-frequency cavities

Speaker
 Fabio Bosco

Design and optimization of structured metal plasma targets using a CFD code for laser wakefield acceleration

Speaker
 Hyeon Woo Lee

An LWFA injector for AWAKE Run 2 experiment

Speaker
 Samuel Marini

6:00 PM

4:00 PM

Monday Poster Session: MOPS

Poster Session | **Location:** MCC Exhibit Hall A, Blues

A novel coherent synchrotron radiation simulation method using cavity Green's functions

Speaker
 Omkar Ramachandran

Enhancing CERN-SPS slow extraction efficiency: meta Bayesian optimisation in crystal shadowing

Speaker
 Matthew Fraser

First-principle simulations of a laser-assisted bunch compression scheme

Speaker
 Afnan Al Marzouk

Ion optics test stand: generating ML training data sets for ion optics optimization

Speaker
 Matevz Skobe

Tracking study of the bimodal RF cavity for storage ring light source

Speaker
Dinghui Su

Automated optimization of accelerator settings at GSI

Speaker
Nico Madysa

Unifying coherent synchrotron radiation wakefield and classical radiation reaction

Speaker
Zhuoyuan Liu

Comparison between self-consistent and non self-consistent space charge analysis for the evolution of the coherent direct space charge modes

Speaker
Elias Métral

Axially symmetric e-lens based on McMillan map

Speaker
Timofey Zolkin

Multi-objective genetic optimization of high charge TopGun photoinjector

Speaker
Petr Anisimov

Research on spatial alignment of laser and electron beam in the generation of ultra-short electron pulses by laser modulation

Speaker
Jingya Li

Resistive wall heating and thermal analysis of the EIC HSR beam screen

Speaker
Medani Sangroula

Progress of the nonlinear time-domain finite element solver implementation in the electromagnetic code ACE3P

Speaker
Mohamed Othman

Generation of attosecond electron bunches through terahertz regulation

Speaker
Yian Wang

Discovering transient models of emittance growth via mode interaction of phase space nonuniformities

Speaker
Liam Pocher

Symplectic modeling of ALS-U bending dipoles using 3D magnetic field data

Speaker
Chad Mitchell

Explore higher order transverse resonance island buckets at the Cornell electron storage ring

Speaker

Vardan Khachatryan

Microbunching instability for beam swithyard transport**Speaker**

Bingyang Yan

Change of Hamiltonian during longitudinal separatrix crossing**Speaker**

Shane Koscielniak

Intrabunch motion in the presence of mode coupling**Speaker**

Elias Métral

Proposal for a proton-bunch compression experiment at IOTA in the strong space-charge regime**Speaker**

Benjamin Simons

Python FLUKA BeamLine (pyflubl), a python library to create FLUKA simulations of accelerators**Speaker**

Stewart Boogert

Wakefield studies for an ultra compact X-rays free electron laser**Speaker**

Fabio Bosco

Single-bunch instabilities and their mitigation in Diamond-II**Speaker**

Richard Fielder

Multiphysics modeling of accelerators through code integration**Speaker**

Andong Yue

Macro-particle simulations of longitudinal peak-detected Schottky signals**Speaker**

Ivan Karpov

Analysis of nonlinear deviation in a generalized longitudinal strong focusing unit**Speaker**

Mr Jiazhen Tang

Implementing betatron radiation for beam diagnostics studies**Speaker**

Prof. Carsten Welsch

Transverse instabilities in SOLEIL II storage ring in the presence of a harmonic cavity**Speaker**

Patrick Schreiber

Development of numerical tools for intra-beam scattering modelling**Speaker**

Konstantinos Paraschou

Classification of potentials for self consistent symplectic space charge**Speaker**

Emanuele Laface

An open-source Python tool for the Maxwell eigenvalue problem and multipacting analysis in axisymmetric elliptical cavity structures**Speaker**

Sosofo-Abasi Udongwo

Benchmark of AT vs MADX-PTC with exact integrators**Speaker**

Nicola Carmignani

Dynamics study of the crab crossing at the electron ion collider using square matrix and iterative methods**Speaker**

Kelly Anderson

Utilizing neural networks to speed up coherent synchrotron radiation computations**Speaker**

Christopher Leon

Fast-ramping alpha magnet for interleaved operation at ANL APS**Speaker**

Yung-Chuan Chen

Koopman operator method for nonlinear dynamics analysis using symplectic neural networks**Speaker**

Kelly Anderson

Resonance compensation at the CERN PS booster aided by Bayesian optimization and BOBYQA**Speaker**

Cristhian Gonzalez-Ortiz

First operational experience with data-driven hysteresis compensation for the main dipole magnets of the CERN SPS**Speaker**

Carlo Zannini

Accelerator system parameter estimation using variational autoencoded latent regression**Speaker**

Mahindra Rautela

Solving the Orszag-Tang vortex magnetohydrodynamics problem with physics-constrained convolutional neural networks

Speaker

Christopher Leon

Fringe field maps for transverse gradient bending magnets with curved poles**Speaker**

Michael Borland

Simulation studies of laser cooling for the Gamma Factory proof-of-principle experiment at the CERN SPS**Speaker**

Peter Kruyt

Comparison of Bayesian optimization and the reduction of resonance driving terms in the optimization of the dynamic aperture of the BESSY III MBA lattice**Speaker**

Bettina Kuske

NuMI beam muon monitor data analysis and simulation for improved beam monitoring**Speaker**

Pavel Snopok

Slow longitudinal mode 1 instability in electron storage rings with harmonic cavities**Speaker**

Murilo Alves

Microbunching threshold manipulation by a corrugated structure impedance at KARA**Speaker**

Akira Mochihashi

Demonstrations of the 4D phase space reconstruction of flat and magnetized beams using neural-networks and differentiable simulations**Speaker**

Seongyeol Kim

Simulations and experiments for dynamic aperture studies in the LHC ion operation**Speaker**

Ilias Efthymiopoulos

Incoherent and coherent tune shifts in Elettra 2.0**Speaker**

Stefano Krecic

Optimizing the sextupole configuration for simultaneous correction of third order resonances at the recycler ring**Speaker**

Cristhian Gonzalez-Ortiz

High-performance magnet simulation software**Speaker**

Ilya Zilberter

Modeling and optimization of the FACET-II injector with machine learning algorithms**Speaker**

Sanjeev Chauhan

Imparting arbitrary correlation on longitudinal phase space using transverse wigglers and deflecting cavities**Speaker**

Gwanghui Ha

Modeling interference of two first-order resonances with two Siberian snakes using machine learning**Speaker**

Eiad Hamwi

Adjoint optimization of accelerator cavities**Speaker**

John Cary

Experimental verification of integrability in a Danilov-Nagaitsev lattice using machine learning**Speaker**

Nilanjan Banerjee

Reinforcement learning enabled fast optimization in lasers and accelerator control: with experimental demonstration on laser combining**Speaker**

Zhe Zhang

Comprehensive modeling of Siberian Snakes in BNL's AGS: symplectic tracking and optical compensation**Speaker**

Eiad Hamwi

PYG4OMETRY update: a tool to create geometries for Geant4, BDSIM, G4Beamline and FLUKA**Speaker**

Stewart Boogert

Harnessing machine learning for the optimal design of ILC e-driven positron source**Speaker**

Zachary Liptak

Start-to-end simulations of microbunching instability based on optimized velocity bunching in linac-driven FELs**Speaker**

Zihan Zhu

Beam condition diagnostics and forecasting with non-destructive measurements at FACET-II**Speaker**

Joshua Einstein-Curtis

High gradient C-band photoinjector performance utilizing sacrificial charge to enhance brightness**Speaker**

Michael Kaemingk

The Reconfiggler: a uniquely versatile wiggler**Speaker**

Gwanghui Ha

Towards latent space evolution of spatiotemporal dynamics of six-dimensional phase space of charged particle beams**Speaker**

Mahindra Rautela

Particle tracking simulation and semi-analytical Vlasov calculation of CSR induced microbunching instability in a non-symmetric S-type four-dipole bunch compressor chicane**Speaker**

Bingxi Liu

3D theory of short-wavelength instabilities driven by space-charge**Speaker**

Vladimir Litvinenko

Understanding sextupole**Speaker**

Timofey Zolkin

Update on the beam-induced heating and thermal analysis for the EIC vacuum chamber components**Speaker**

Medani Sangroula

Advancing non-linear space charge simulations: neural networks and analytical approaches**Speaker**

Isabella Vojskovic

Expansions of the integrability program for novel accelerators**Speaker**

Kevin Hamilton

Proton polarization in RHIC with partial Siberian snakes**Speaker**

Eiad Hamwi

Formulas of coherent synchrotron radiation induced microbunching instability in an arbitrary four-dipole chicane bunch compressor**Speaker**

Bingxi Liu

Measurements and simulations of the e-cooling performance in ELENA

6:00 PM

Speaker
Peter Kruyt