

## Session Program

10-15 Aug 2025



## NAPAC25 - North American Particle Accelerator Conference 2025

### ***THP: Thursday Poster Session***

SAFE Credit Union Convention Center  
1401 K St, Sacramento, CA 95814

# Thursday 14 August

16:00

## THP: Thursday Poster Session

**Poster Session** | **Location:** SAFE Credit Union Convention Center, 1401 K St, Sacramento, CA 95814

### Traveling-wave chopper structures for LANSCE Modernization Project

**Speaker**

Sergey Kurennoy

### The APS Linac RF System upgrading status and next plan

**Speaker**

Yawei Yang

### Design of a GammaT-Jump System for Fermilab Booster

**Speaker**

Jeffrey Eldred

### Final design of CARIE photoinjector cavity with plug insert

**Speaker**

Haoran Xu

### Measurements of single-shot attosecond X-ray pulses at high repetition rate

**Speaker**

Veronica Guo

### Evaluating a transition-jump system for the Fermilab Main Injector using Xsuite

**Speaker**

Adam Schreckenberger

### Spectrotemporal shaping of attosecond x-ray free-electron laser pulses

**Speaker**

River Robles

### Tuning of a Force-neutral Adjustable Phase Undulator

**Speaker**

Maofei Qian

### Measuring orbit responses with oscillating trajectories in the Fermilab Linac

**Speaker**

Alexander Shemyakin

### Time-of-Flight energy measurements with BPMs

**Speaker**

Alexander Shemyakin

### Update on septum magnet redesign at LANSCE Proton Storage Ring

**Speaker**

Haoran Xu

### Progress towards conceptual design for the AS2 lattice

**Speaker**

Xuanhao Zhang

**Cesium Telluride Photocathodes: PLD assisted Epitaxial Growth****Speaker**

Dr Kali Prasanna Mondal

**Single spike hard x-ray free-electron laser pulses generated by photocathode laser shaping****Speaker**

River Robles

**Multi-GeV FFA Beam Transport Test at CEBAF****Speaker**

Salim Ogur

**Simulation of the thermoelectric effect in a multi-metallic superconducting cavity****Speaker**

Nabin Raut

**Impact of Phase and Amplitude Instabilities on Beam Performance in the FACET-II LINAC****Speaker**

Marcellus Parker

**Advancing to 500 mA: High-Current Ramp-Up and Operational Experience at NSLS-II****Speaker**

Guimei Wang

**Force-Neutral Adjustable Phase Undulators****Speaker**

Tara Hodgetts

**Steady-State Microbunching using Optical Stochastic Cooling****Speaker**

Michael Wallbank

**Development of the rocking curve imaging setup at BL17-2 at SSRL****Speaker**

Mario Balcazar

**Simulations of Positron Injector for Ce+BAF****Speaker**

Andriy Ushakov

**Beamline Optics Design of a New Two-Room Treatment Suite at the McLaren Proton Therapy Center****Speaker**

George Gillespie

**ORTHOGONAL DIRECTIONS CONSTRAINED GRADIENT METHOD FOR BEAM OPTICS CORRECTION**

**Speaker**

Timofey Gorlov

**Radioisotope production at the Spallation Neutron Source: Design concept of experimental target station****Speaker**

Yong Joong Lee

**Photon Stimulated Desorption Beamline at NSLSII****Speaker**

Robert Todd

**LAMP Front-End RFQ optimization for micropulse production****Speaker**

Haoran Xu

**Performance Requirements for the LANSCE Accelerator Modernization Project****Speaker**

Dr John Lewellen

**3D Theory of the Ion Channel Laser****Speaker**

Claire Hansel

**Low Energy Accelerator Development Facility Upgrades****Speaker**

Anusorn Lueangaramwong

**Four unique features of dynamical friction for magnetized and unmagnetized cooling of relativistic hadron beams****Speaker**

David Bruhwiler

**Hollow-Core Fiber Optics as a Path Towards Laser- Electron Based Compact X-ray Sources****Speaker**

Gerrit Bruhaug

**Design Update of the ATLAS Multi-User Upgrade at Argonne****Speaker**

Brahim Mustapha

**Distributed Drive Linac Architecture for Compact Accelerators****Speaker**

Leanne Duffy

**Single-shot longitudinal phase-space measurement of thermionic gun beam at the Advanced Photon Source linac\*****Speaker**

Timothy Suzuki

**Tunable Terawatt Attosecond Soft-X-Ray Pulse Pair from a Plasma Wakefield Driven Free Electron Laser**

**Speaker**

Xuan Zhang

**BeamNetUS at Brookhaven National Laboratory****Speaker**

Anusorn Lueangaramwong

**Longterm sustainment of electron beam linac systems for e-beam sterilization application****Speaker**

Yoko Parker

**SLAC MeV Ultrafast Electron Diffraction Facility Upgrade Plans****Speaker**

Robert England

**Beam bunchers for LANSCE Modernization Project****Speaker**

Sergey Kurennoy

**The potential high orders of vertical electric field systematic effect due to hyperbolic/elliptical deformed electrode plates in the proton-EDM ring****Speaker**

Bhawin Dhital

**Mitigating Transition in the Fermilab Booster Using a Triple Phase Jump****Speaker**

Jean-Francois Ostiguy

**Study of nonlinear beam dynamics of an asymmetric NSLS-II lattice****Speaker**

Minghao Song

**Development of Sodium Potassium Antimonide Photocathodes for Use of Coherent electron Cooling****Speaker**

Dr Kali Prasanna Mondal

**Physics Model to Study Resonant Compton Scattering****Speaker**

William Delooze

**Analytical model for the transition to superradiance in seeded free-electron lasers****Speaker**

River Robles

**Visualization Tools for EGUN Simulations****Speaker**

Katie Casey

**Development of superconducting adaptive gap undulator (SC-AGU)****Speaker**

Toshiya Tanabe

## **Leveraging the capabilities of LCLS-II: linking adaptable photoinjector laser shaping to tailored X-ray production**

### **Speaker**

Jack Hirschman

## **Isochronous Induction Cell Storage Ring**

### **Speaker**

Mei Bai

## **Transport Lattice Optimization for an S-Band Compact Electron Linear Accelerator**

### **Speaker**

Joshua Yoskowitz

## **Emulation of Two-Pass Gain in a cavity-based XFEL via Self-Seeding at LCLS**

### **Speaker**

Mario Balcazar

## **Implementation of Electron-X-ray Beam Overlap Diagnostic Instrument at LCLS**

### **Speaker**

Mario Balcazar

## **Experimental demonstration of terahertz transport using overmoded iris-line waveguide**

### **Speaker**

Mohamed Othman

## **Updates on scientific and R&D highlights at SLAC MeV-UED facility**

### **Speaker**

Fuhao Ji

## **The Reconfiggler: A uniquely versatile wiggler**

### **Speaker**

Nathan Majernik

## **Ultra-Bright Cavity-Based X-ray Free Electron Lasers**

### **Speaker**

Zhirong Huang

## **The LANL Proton radiography Facility and Near-Term Improvements**

### **Speaker**

John Schmidt

## **Design Optimization of a Dual Energy Electron Storage Ring Cooler for Improved Cooling Performance**

### **Speaker**

Fanglei Lin

## **Implementation of an automated paradigm for alkali metal - metalloid photocathode growth**

### **Speaker**

Alexei Kanareykin

## **Radioisotope production at the Spallation Neutron Source: Design concept of isotope production target**

**Speaker**

Yong Joong Lee

**Recent progress on CsTe photocathode growth at LANL****Speaker**

Haoran Xu

**User research at BNL's Accelerator Test Facility****Speaker**

Mr Marcus Babzien

**Calculations of emittance measurements via inverse Compton scattering****Speaker**

Michael Kaemingk

**Free-Electron Laser Approaches to 6.x nm Generation for Blue-X Lithography****Speaker**

Dinh Nguyen

**Spin-Transparent Storage Rings for Quantum Computing****Speaker**

Riad Suleiman

**Advancing Conduction-Cooled 650 MHz SRF Technology for Industrial Accelerators at Fermilab's IARC****Speaker**

Yichen Ji

**Optimization of kicker location for pseudo single bunch operation in SPEAR3****Speaker**

Dr Peifan Liu

**Flattening the Magnetic Field at Booster Injection Using Corrector Dipole Magnets for PIP-II****Speaker**

Kiyomi Seiya

**High Energy Heavy Ion Single Event Effects (HE HISEE): Planning for the Future of Microelectronics****Speaker**

Dr Sandra Biedron

**Commissioning of the Complex Bend Prototype Beamline****Speaker**

Guimei Wang

**Transport of 12 GeV positron beams at Ce+BAF****Speaker**

Salim Ogur

**Design of a microbunched electron cooler energy recovery linac****Speaker**

Kirsten Deitrick

## **Feasibility Studies of the Stochastic Cooling System in the Proton Storage Ring EDM Experiment**

### **Speaker**

Bhawin Dhital

## **Feasibility of proton bunch compression in an operational high-power accelerator**

### **Speakers**

Austin Hoover, Vasily Morozov

## **An electrostatic fusion collider for interstellar propulsion**

### **Speaker**

Ms Grace Bittlingmaier

## **Advanced Growth and Characterization of Alkali Antimonide Photocathodes for Bright Beam Applications**

### **Speaker**

Tariqul Hasan

## **Systematic comparison and design approach for standard HOA-type storage ring lattice**

### **Speaker**

Xuanhao Zhang

## **Growth and characterization of GaAs based spin-polarized photocathodes**

### **Speaker**

Pallavi Saha

## **Automatic measurement of the stray magnetic field in the RCS locations of RHIC by using the SPOT robot**

### **Speaker**

Peng Xu

## **Radioisotope Production at SNS (RIPS)**

### **Speaker**

Justin Griswold

## **Digital Twin Framework for PIP-II Linac: AI-Driven Multi-Scale Modeling from Ion Source to 800 MeV**

### **Speaker**

Abhishek Pathak

## **A Compact 2D Carbon Beam Scanner with Interleaved Saddle Coils**

### **Speaker**

Brahim Mustapha

## **Research program at the NLCTA Test Facility**

### **Speaker**

Emma Snively

## **Improving sustainability of electron beam linac system**

### **Speaker**

Yoko Parker

## **Critical Design Issues of the Novel Multi-Beam LANSCE Front End**



**Speaker**  
Yuri Batygin

**The Los Alamos Neutron Science Center (LANSCE) Accelerator: Current Condition and Status of Modernization Efforts**

**Speaker**  
Steven Russell

**Beam Loss Modeling and Mitigation Due to Intra- Beam Stripping in H- Linacs**

**Speaker**  
Shivam Kakkar

**Status of MicroBeam Linatron (MBL) product line development at Varex Imaging Corporation.**

**Speaker**  
Dr Andrey Mishin

**Beam Dynamics in LANSCE Accelerator Facility with Lower Energy**

**Speaker**  
Yuri Batygin

18:00