

Session Program

Oct 19 - 24, 2025



HB2025 - the 71st ICFA Advanced Beam Dynamics workshop on High-Intensity and High- Brightness Hadron Beams

THPT poster session

Thu, October 23

3:30 PM

THPT poster session: THPT

Poster Session | **Location:** conference center, third floor

Development of Readout System for Target Multi-Wire Scanner Beam Profile Measurement of CSNS-II

Speaker

Zhijun Lu

RF-Track for beam dynamics studies in high-intensity hadron linacs

Speaker

Andrea Latina

Measurements of Linear Resonances and Stopbands on the ISIS Ring

Speaker

ESMAEIL AHMADI

Dynamic Aperture Tracking for High-Intensity Proton Accelerators

Speaker

Jiajie Tan

Modeling the dynamics of third-generation electron cyclotron resonance ion sources

Speaker

Wang Xinyu

Development of a Machine Learning tool for LEBT Optimisation at ISIS

Speaker

Xingchi Liu

Commissioning of an Optical IPM for the CSNS LINAC

Speaker

Mengyu Liu

Design of a laser-based emittance meter for the H- beam at CSNS

Speaker

Biao Zhang

Effect of intrabeam scattering on the bunched beam Schottky noise

Speaker

Valeri Lebedev

Progress of CNT multi-wire beam profile monitor for CSNS-II

Speaker

Zhijun Lu

Beam Dynamics of a High-frequency RFQ with Nested Solenoid

Speaker

Zhongshan Li

Parametric resonance in a heavy ion synchrotron**Speaker**

Fucheng Cai

Longitudinal Localized Excitation Slow Extraction Method**Speaker**

Yang Xiong

High-intensity beam tests in the CERN Proton Synchrotron**Speaker**

Heiko Damerau

Online Measurement of Beam Phase and Energy Gain Based on Beam-Cavity Interaction**Speaker**

Mr Lingyun Gong

Applications of Machine Learning in Beam Commissioning and Operation at CSNS**Speaker**

Xiaohan Lu

The experimental evaluation of third-order resonance correction using 8 Trim-S in J-PARC MR**Speaker**

Yulian Tan

The study of the energy spread measurement at linac of CSNS**Speaker**

Yanliang Han

Transverse 4D phase space reconstruction using wire scanner measurements at the CSNS Linac**Speaker**

Xingguang Liu

Application of autoresonance in rapid beam extraction of synchrotrons**Speaker**

Ding Xiao

Beam loss mechanism by parasitic negative hydrogen in high power proton linac**Speaker**

Duanyang Jia

Compensation of third-order resonances in the presence of strong space-charge effect**Speaker**

Lei Wang

Design of 6D cooling and final cooling channels for a muon collider**Speaker**

Ruihu Zhu

Time-resolved space charge compensation studies at the high-intensity KOMAC beam test stand

Speaker

Emre Cosgun

162.5MHz SINGLE-BUNCH SELECTION ULTRA-FAST BIPOLAR CHOPPER POWER SUPPLY DESIGN**Speaker**

Xin Qiao

Calibration of MEBT Buncher Cavity Voltage and Validation of Phase-Sweep Fitting Method via Time-of-Flight Measurement**Speaker**

Shengzhuo Xue

Ion Source System: Maximum Extracted Oxygen Beam Current and Emittance Boundary Measurement**Speaker**

YUNHUI BAO

Beam dynamics design of the superconducting section of a 100 mA superconducting linac**Speaker**

Ms Man Yi

Study on Resonance and Instability in High-Intensity Beams Based on Envelope Oscillation Theory and Optimization of Beam Transport**Speaker**

Tao Zhang

Beam Dynamics Design and Beam commissioning of a Compact Accelerator-Based Neutron Source with a double Einzel-Lens LEBT and RFQ**Speaker**

Haoquan Su

Measurement and optimization of the beam coupling impedance of a novel 3D printed titanium alloy cage inside the thin-wall vacuum chamber**Speaker**

Guangyu Zhu

Reducing Energy Spread of Low-Energy Slow Extracted Beam Using Longitudinal Localized Excitation Method**Speaker**

Chuhao Li

Impact of longitudinal beam feedback on single-bunch instabilities**Speaker**

Leandro Intelisano

Xsuite for simulation of high-brightness, high-intensity hadron beams**Speaker**

Riccardo De Maria

Third-order resonances and the correction in J-PARC MR**Speaker**

Susumu Igarashi

Design of a 2300 W 352 MHz solid-state amplifier module with Integrated EtherCAT interface for monitoring and control

Speaker

Mr William Leijenaar

Techniques and progress in beam transverse emittance measurement at the CSNS RCS

Speaker

Yong Li

Electron cooling using longitudinal hollow electron beam

Speakers

Dr He Zhao, Xiaodong Yang

The slow extraction feedback system at HIRFL-CSR

Speaker

Tong Liu

Beam Bunch Spacing Extension for Neutron Time-of-Flight Measurements at the LEAF

Speaker

Yu Tang

The Field Measurement of the Injection Painting Bump Magnets for the CSNS-II/ RCS

Speaker

Zixi Pang

Gridded RF Gun Design

Speaker

Mr Zehua Liang

Design and Progress of CiADS Beam Line to Reactor

Speaker

Huan Jia

On Fluid Modelling of Beam Instabilities with Wakefields and Direct Space Charge

Speaker

Adrian Oeftiger

Research on a Hybrid Coupled Cavity Accelerating Structure for Low-Energy High-Current Proton Beams

Speaker

Mingze Tuo

A beam line design of transverse beam profile uniformization using octupole magnets

Speaker

Mr Haoye Wang

Research on Optimization of Beam Fault Compensation in CiADS Superconducting Section Based on Reinforcement Learning

Speaker

Tielong Wang

Design of Differential Beam Current Measurement System for Fast Protection in CSNS-II Linac Upgrade**Speaker**

Weiling Huang

High-performance open-source beam dynamics simulation platform: PASS**Speaker**

Mingxuan Chang

Research on High-Intensity Proton IH-DTL Accelerating Structure Based on APF**Speakers**

Jinghe Yang, Shilin Li

Efficient Beam Tuning with Surrogate-Model Based Reinforcement Learning**Speaker**

Chunguang Su

The isochronous mode operation with nonlinear optics characteristics of the SRing at HIAF**Speaker**

Wenwen Ge

Beyond 1 MW Operation of the J-PARC RCS with Minimum Beam Loss**Speaker**

Pranab Saha

Resonant Impedance simulation of RF shields on ceramic chambers**Experimental study on the fast bunch merging in high-intensity hadron synchrotrons****Speaker**

Yaoshuo Yuan

Tune Optimization for CSNS-II RCS: Simulations and Machine Studies**Speaker**

Jianliang Chen

Position-phase error cancellation effects in beam-based linac alignment and synchronization**Speaker**

Haoyu Zhou

Broadband capture and achromatic focusing of laser-driven protons for RF linac post-acceleration**Speaker**

Haoyu Zhou

Simulation Study on Magnet and RF Failures in the Linear Accelerator of CSNS-II**Speaker**

Yuwen An

Preliminary Design of a Compact High-Flux Neutron Source Based on a Proton Linac

Speaker

Xingguang Liu

H⁻ Beam Halo Collimation using Stripping and Applications of the Secondary Proton Beam

Speaker

Zhiping Li

MODIFIED ENVELOPE EQUATIONS WITH CONSIDERATION OF AC-CELERATION AND ITS APPLICATIONS IN BEAM DYNAMICS STUDY

Speaker

Xinmiao Wan

ICONE : insights from the early stages of the compact neutron source accelerator

Speaker

Jonathan Dumas

Beam dynamics design of a Superconducting RFQ for CiADS

Speaker

Shilong Gao

Upgraded Design of the IMP High-Current Continuous-Wave Compact SRF Electron Linac

Speaker

Yimeng Chu

Development and Commissioning of the Fast Beam Loss Monitor System at HIAF

Speaker

Long Jing

Fault Tree Modeling and Reliability Analysis of the CAFE2 Accelerator

Speaker

Xin Ma

Impedance in matter

Speaker

Elias Métral

Design considerations of the bunch-by-bunch transverse feedback system for the CSNS RCS

Speaker

Weiwen Chen

Maximum entropy tomography in 4D transverse phase space with frozen space charge

Speaker

Liwen Liu

5:30 PM