3rd ICFA Beam Dynamics Mini-Workshop on Machine Learning Applications for Particle Accelerators (Chicago, IL - Palmer House Hilton)

Report of Contributions

Contribution ID: **57** Type: **not specified**

Registration

Tuesday, 1 November 2022 08:00 (45 minutes)

Contribution ID: **58**　　　　　　　　　　　　　　　　Type: **not specified**

Meet & Greet

Tuesday, 1 November 2022 18:00 (2 hours)

Contribution ID: **59**

Type: **not specified**

Sessions

Contribution ID: **60**   Type: **not specified**

Poster Sessions

Contribution ID: **61**

Type: **not specified**

Sessions

Contribution ID: **62**

Type: **not specified**

Sessions and Close Out

Contribution ID: **63**   Type: **not specified**

Tour of FNAL

Friday, 4 November 2022 12:00 (5 hours)

<p>Tour Details Tour Sign-up Form

Contribution ID: 64   Type: **not specified**

Tutorials - Prep and Instructions

Tuesday, 1 November 2022 08:45 (15 minutes)

Contribution ID: **65** Type: **not specified**

ALCF - HPC for AI/ML (Corey J. Adams, ANL)

Tuesday, 1 November 2022 13:25 (45 minutes)

Presenter: ADAMS, Corey (ANL)

Contribution ID: **66**　　　　　　　　　　　　　　　　　Type: **not specified**

Tutorial on Bayesian Optimization

Tuesday, 1 November 2022 09:00 (45 minutes)

Presenter: ROUSSEL, Ryan (SLAC)

Contribution ID: **67** Type: **not specified**

Tutorial on Anomaly Detection

Tuesday, 1 November 2022 10:05 (45 minutes)

Presenter: SULC, Antonin (MCS (MCS Fachgruppe 4))

Contribution ID: **68**   Type: **not specified**

Tutorial on Reinforcement Learning (Speaker: Kishansingh Rajput, JLAB)

Tuesday, 1 November 2022 11:10 (45 minutes)

Contribution ID: **69** Type: **not specified**

Tutorial on Uncertainty Quantification

Tuesday, 1 November 2022 14:10 (45 minutes)

Presenter: ISENBERG, Natalie (Computational Science Initiative)

Contribution ID: **70**   Type: **not specified**

Xopt

Tuesday, 1 November 2022 15:15 (10 minutes)

Presenter: ROUSSEL, Ryan (SLAC)

Session Classification: Collaborations

Contribution ID: **71**   Type: **not specified**

Badger

Tuesday, 1 November 2022 15:25 (10 minutes)

Presenter: ZHANG, Zhe (SLAC)

Session Classification: Collaborations

Contribution ID: **72** Type: **not specified**

GeOFF and COI

Tuesday, 1 November 2022 15:35 (10 minutes)

Presenter: MADYSA, Nico (CERN)

Session Classification: Collaborations

Contribution ID: **73** Type: **not specified**

RadiaSoft Tools (RadiaSoft Team, RadiaSoft)

Tuesday, 1 November 2022 15:45 (10 minutes)

Session Classification: Collaborations

Contribution ID: **74**   Type: **not specified**

Open Discussion

Tuesday, 1 November 2022 15:55 (20 minutes)

Session Classification: Collaborations

Contribution ID: **75** Type: **not specified**

Xopt

Tuesday, 1 November 2022 16:35 (10 minutes)

Presenter: ROUSSEL, Ryan (SLAC)

Session Classification: Collaborations

Contribution ID: **76** Type: **not specified**

Badger

Tuesday, 1 November 2022 16:45 (10 minutes)

Presenter: ZHANG, Zhe (SLAC)

Session Classification: Collaborations

Contribution ID: **77** Type: **not specified**

GeOFF and COI

Tuesday, 1 November 2022 16:55 (10 minutes)

Presenter: MADYSA, Nico (CERN)

Session Classification: Collaborations

Contribution ID: **78** Type: **not specified**

RadiaSoft Tools (RadiaSoft Team, RadiaSoft)

Tuesday, 1 November 2022 17:05 (10 minutes)

Session Classification: Collaborations

Contribution ID: **79**   Type: **not specified**

Open Discussion

Tuesday, 1 November 2022 17:15 (20 minutes)

Session Classification: Collaborations

Contribution ID: **80**   Type: **not specified**

Registration (Coffee and Snacks will be available)

Wednesday, 2 November 2022 08:00 (30 minutes)

Contribution ID: **81** Type: **not specified**

Welcome

Wednesday, 2 November 2022 08:30 (25 minutes)

Contribution ID: **82**   Type: **not specified**

Bayesian Algorithm Execution for Tuning Particle Accelerator Emittance with Partial Measurements

Wednesday, 2 November 2022 08:55 (25 minutes)

Presenter: MISKOVICH, Sara (staff@stanford.edu;member@stanford.edu)

Session Classification: Bayesian Optimization (Session Moderator: Andrea Santamaria Garcia, Karlsruhe Institute of Technology)

Contribution ID: **83**   Type: **not specified**

Machine Learning Tools to support the ATLAS Ion Linac Operations at Argonne

Wednesday, 2 November 2022 09:20 (25 minutes)

Presenter: MARTINEZ-MARIN, Jose L. (member@anl.gov)

Session Classification: Bayesian Optimization (Session Moderator: Andrea Santamaria Garcia, Karlsruhe Institute of Technology)

Contribution ID: 84   Type: **not specified**

Bayesian Optimization for Trajectory Alignment at LEReC

Wednesday, 2 November 2022 09:45 (25 minutes)

Presenter: GAO, Yuan

Session Classification: Bayesian Optimization (Session Moderator: Andrea Santamaria Garcia, Karlsruhe Institute of Technology)

Contribution ID: **85**   Type: **not specified**

Machine Learning for Slow Spill Regulation in the Fermilab Delivery Ring

Wednesday, 2 November 2022 10:40 (25 minutes)

Presenter: THIEME, Mattson (NorthWestern)

Session Classification: Reinforecement Learning (Session Moderator: Christine Sweeney, LANL)

Contribution ID: **86**   Type: **not specified**

Reinforcement Learning Applied to Optimization of LHC Beams in the CERN Proton Synchrotron

Wednesday, 2 November 2022 11:05 (25 minutes)

Presenter: WULFF, Joel Axel (CERN)

Session Classification: Reinforecement Learning (Session Moderator: Christine Sweeney, LANL)

Contribution ID: **87**   Type: **not specified**

A Closer Look at Reinforcement Learning for Beam-Based Feedback Systems

Wednesday, 2 November 2022 11:30 (25 minutes)

Presenter: GRECH, Leander (Univ. of Malta)

Session Classification: Reinforecement Learning (Session Moderator: Christine Sweeney, LANL)

Contribution ID: **88** Type: **not specified**

SRF Cavity Fault Classification and Prediction at Jefferson Lab

Wednesday, 2 November 2022 13:25 (25 minutes)

Presenter: TENNANT, Chris (Jefferson Laboratory)

Session Classification: Prognostics (Session Moderator: Verena Kain, CERN)

Contribution ID: **89**   Type: **not specified**

Beam-Based RF Station Fault Identification at the Linac Coherent Light Source

Wednesday, 2 November 2022 13:50 (25 minutes)

Presenter: HUMBLE, Ryan (Stanford)

Session Classification: Prognostics (Session Moderator: Verena Kain, CERN)

Contribution ID: **90** Type: **not specified**

Status of Data-Driven Bea Trajectory Anomaly Detection

Wednesday, 2 November 2022 14:15 (25 minutes)

Presenter: SULC, Antonin (MCS (MCS Fachgruppe 4))

Session Classification: Prognostics (Session Moderator: Verena Kain, CERN)

Contribution ID: **91**   Type: **not specified**

Disentangling Beam Losses in the Fermilab Main Injector Enclosure Using Real-time Edge AI

Wednesday, 2 November 2022 14:40 (25 minutes)

Presenter: HAZELWOOD, Kyle (FNAL)

Session Classification: Prognostics (Session Moderator: Verena Kain, CERN)

Contribution ID: **92**

Type: **not specified**

Uncertainty Aware Anomaly Detection to Predict Errant Beam Pulses and GradCAM Analysis

Wednesday, 2 November 2022 15:35 (25 minutes)

Presenter: RAJPUT, Kishansingh (Jefferson Lab)

Session Classification: Prognostics (Session Moderator: Verena Kain, CERN)

Contribution ID: **93**

Type: **not specified**

AI for Muon Collider Design: Progress and Plans

Wednesday, 2 November 2022 16:00 (25 minutes)

Presenter: FOL, Elena (member@cern.ch)

Contribution ID: 94   Type: **not specified**

RadiaSoft Tools (RadiaSoft Team, RadiaSoft)

Wednesday, 2 November 2022 16:25 (20 minutes)

Presenter: EDELEN, Jonathan (RadiaSoft, LLC)

Contribution ID: **95**

Type: **not specified**

Poster Session - 4th Floor

Contribution ID: **96**   Type: **not specified**

Data-Driven Chaos Indictor for Nonlinear Dynamics and Applications on Storage Ring Lattice Design

Thursday, 3 November 2022 08:30 (25 minutes)

Presenter: RAINER, Robert (BNL)

Session Classification: Modeling (Session Moderator: Chris Tennant, JLAB)

Contribution ID: **97**   Type: **not specified**

Towards End-to-End Differentiable Accelerator Modeling

Thursday, 3 November 2022 08:55 (25 minutes)

Presenter: GONZALEZ-AGUILERA, Juan Pablo (University of Chicago)

Session Classification: Modeling (Session Moderator: Chris Tennant, JLAB)

Contribution ID: **98**   Type: **not specified**

Experience with Integrated Systems for Online Physics Modeling, Adaptive ML Modeling, and Model-Based Control

Thursday, 3 November 2022 09:20 (25 minutes)

Presenter: EDELEN, Auralee (SLAC)

Session Classification: Modeling (Session Moderator: Chris Tennant, JLAB)

Contribution ID: **99**
Type: **not specified**

Luminosity Tuning for Future Electron Ion Collider

Thursday, 3 November 2022 09:45 (25 minutes)

Presenter: XU, Derong (Brookhaven National Laboratory)

Session Classification: Modeling (Session Moderator: Chris Tennant, JLAB)

Contribution ID: **100** $\hspace{6cm}$ Type: **not specified**

Application of Natural Language Processing on Electronic Logbooks

Thursday, 3 November 2022 10:40 (25 minutes)

Presenter: MALDONADO, Jennefer (Brookhaven National Laboratory)

Session Classification: Facility (Session Moderator: Francesco Maria Velotti, CERN)

Contribution ID: **101**   Type: **not specified**

Towards (more) autonomous accelerators - Status and Vision at CERN

Thursday, 3 November 2022 11:05 (25 minutes)

Presenter: KAIN, Verena (CERN)

Session Classification: Facility (Session Moderator: Francesco Maria Velotti, CERN)

Contribution ID: **102** Type: **not specified**

How to get ML into the Control Room - the CERN ML Frameworks

Thursday, 3 November 2022 11:30 (25 minutes)

Presenter: MADYSA, Nico (member@cern.ch)

Session Classification: Facility (Session Moderator: Francesco Maria Velotti, CERN)

Contribution ID: **103**   Type: **not specified**

Data Analysis and Control of an MeV Ultrafast Electron Diffraction System Using Machine Learning

Thursday, 3 November 2022 13:25 (25 minutes)

Presenter: BOLIN, Trudy (UNM)

Session Classification: Facility (Session Moderator: Francesco Maria Velotti, CERN)

Contribution ID: **104**   Type: **not specified**

Machine Learning for Tuning, Prediction, and Control at the KIT electron accelerators

Thursday, 3 November 2022 13:50 (25 minutes)

Presenter: SANTAMARIA GARCIA, Andrea (Karlsruhe Institute of Technology)

Session Classification: Optimization (Session Moderator: Hirokazu Maesaka, RIKEN Spring-8 Center)

Contribution ID: **105**   Type: **not specified**

Towards Linac RF Optimization with Machine Learning

Thursday, 3 November 2022 14:15 (25 minutes)

Presenter: SHARANKOVA, Ralitsa (FNAL)

Session Classification: Optimization (Session Moderator: Hirokazu Maesaka, RIKEN Spring-8 Center)

Contribution ID: **106**   Type: **not specified**

ID Orbit Compensation with Neural Networks for PETRA III

Thursday, 3 November 2022 14:40 (25 minutes)

Presenter: VEGLIA, Bianca (DESY)

Session Classification: Optimization (Session Moderator: Hirokazu Maesaka, RIKEN Spring-8 Center)

Contribution ID: **107**   Type: **not specified**

Recent Progress on ML-based Optimization and anomaly prediction at APS

Thursday, 3 November 2022 15:35 (25 minutes)

Presenter: KUKLEV, Nikita (ANL)

Session Classification: Optimization (Session Moderator: Hirokazu Maesaka, RIKEN Spring-8 Center)

Contribution ID: **108**   Type: **not specified**

Phase Space Reconstruction from Accelerator Beam Measurements Using Neural Networks and Differentiable Simulations

Thursday, 3 November 2022 16:00 (25 minutes)

Presenters: ROUSSEL, Ryan (SLAC National Laboratory); ROUSSEL, Ryan (SLAC)

Session Classification: Analysis (Session Moderator: Raimund Kammering, DESY)

Contribution ID: **109**   Type: **not specified**

Improving Neural Networks Predictions using Physics - PINN for the CERN Accelerators

Thursday, 3 November 2022 16:25 (25 minutes)

Presenter: VELOTTI, Francesco Maria (CERN)

Session Classification: Analysis (Session Moderator: Raimund Kammering, DESY)

Contribution ID: **110** Type: **not specified**

Transverse 2D Phase-Space Tomography Using BPMs

Thursday, 3 November 2022 16:50 (25 minutes)

Presenter: HWANG, Kilean (member@msu.edu;faculty@msu.edu;employee@msu.edu)

Session Classification: Analysis (Session Moderator: Raimund Kammering, DESY)

Contribution ID: **111**   Type: **not specified**

Simulation Studies and Machine Learning Applications for Orbit Correction at the Alternating Gradient Syndhrotron

Thursday, 3 November 2022 17:15 (25 minutes)

Presenters: LIN, Lucy (Cornell University); LIN, Weijian (Cornell Univ.)

Session Classification: Analysis (Session Moderator: Raimund Kammering, DESY)

Contribution ID: **112** Type: **not specified**

Modeling, Affiliation

Friday, 4 November 2022 08:30 (15 minutes)

Session Classification: Summaries - Modeling & Anallysis Summary

Contribution ID: **113**

Type: **not specified**

Analysis Affiliation

Friday, 4 November 2022 08:45 (15 minutes)

Session Classification: Summaries - Modeling & Anallysis Summary

Contribution ID: **114**   Type: **not specified**

Opt, Affiliation

Friday, 4 November 2022 09:10 (15 minutes)

Session Classification: Summaries - Optimization Summary

Contribution ID: **115** Type: **not specified**

RL, Affiliation

Friday, 4 November 2022 09:25 (15 minutes)

Session Classification: Summaries - Optimization Summary

Contribution ID: **116** Type: **not specified**

BO, Affiliation

Friday, 4 November 2022 09:40 (15 minutes)

Session Classification: Summaries - Optimization Summary

Contribution ID: **117**   Type: **not specified**

Facility, Affiliation

Contribution ID: **118**   Type: **not specified**

Facility, Affiliation

Friday, 4 November 2022 10:20 (15 minutes)

Session Classification: Facility & Prognostics Summary

Contribution ID: **119**   Type: **not specified**

Prog, Affiliation

Friday, 4 November 2022 10:05 (15 minutes)

Session Classification: Facility & Prognostics Summary

Contribution ID: **120**   Type: **not specified**

Future Workshop

Friday, 4 November 2022 10:45 (10 minutes)

Presenter: RATNER, Daniel (SLAC National Laboratory)

Contribution ID: **121** Type: **not specified**

Concluding Remarks

Friday, 4 November 2022 10:55 (10 minutes)

Presenters: BROWN, Kevin (C-AD); BIEDRON, Sandra (Univ. of NM); BIEDRON, Sandra (Element Aero)

Contribution ID: **122**   Type: **not specified**

test

Session Classification: Analysis (Session Moderator: Raimund Kammering, DESY)

Contribution ID: **123** Type: **not specified**

Open Discussion

Session Classification: Bayesian Optimization (Session Moderator: Andrea Santamaria Garcia, Karlsruhe Institute of Technology)

Contribution ID: **124**   Type: **not specified**

Open Discussion

Friday, 4 November 2022 09:55 (10 minutes)

Session Classification: Summaries - Optimization Summary

Contribution ID: **125**　　　　　　　　　　　　　　　　　Type: **not specified**

Open Discussion

Friday, 4 November 2022 09:00 (10 minutes)

Session Classification: Summaries - Modeling & Anallysis Summary

Contribution ID: 126   Type: **not specified**

Open Discussion

Friday, 4 November 2022 10:35 (10 minutes)

Session Classification: Facility & Prognostics Summary

Contribution ID: **127**   Type: **Poster**

ML Experience gained at BESSY II

Presenter: SCHNIZER , Pierre (BESSY II)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **128**

Type: **Poster**

Beam Loss Disentangling Model Hyperparameter Tuning Methods

Wednesday, 2 November 2022 16:47 (2 minutes)

Presenter: JONES, Isaiah (Northwestern University)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **129**   Type: **Poster**

Graph Embeddings for CEBAF Operations: Progress and Future Plans

Wednesday, 2 November 2022 16:49 (2 minutes)

Presenter: TENNANT, Chris (Jefferson Laboratory)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **130**   Type: **Poster**

Emittance Measurement Speedup with Machine Learning at the Coherent electron Cooling Experiment at RHIC

Wednesday, 2 November 2022 16:51 (2 minutes)

Presenter: LIN, Weijian (Cornell Univ.)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **131**　　　　　　　　　　　　　　　　　　　　　Type: **Poster**

Machine Learning for Beam Emittance Measurement and Aberration Correction of an Electron Microscope

Wednesday, 2 November 2022 16:53 (2 minutes)

Presenter: MA, Desheng (member@cornell.edu;alum@cornell.edu;student@cornell.edu)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **132**　　　　　　　　　　　　　　　　　　　　Type: **Poster**

Enhancing UED temporal resolution with time-stamping virtual diagnostics

Wednesday, 2 November 2022 16:55 (2 minutes)

Presenter: CROPP, FREDERICK (UCLA)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **133**   Type: **Poster**

Analysis and Visualisation of Transverse beam properties at the European XFEL

Wednesday, 2 November 2022 16:57 (2 minutes)

Presenter: KAMMERING, Raimund (Deutsches Elektronen-Synchrotron DESY)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **134** 　　　　　　　　　　　　　　　　　　　　Type: **Poster**

Muon monitor signal to predict NuMI beam parameters and horn current by applying Machine Learning techniques

Wednesday, 2 November 2022 16:59 (2 minutes)

Presenter: WICKREMASINGHE, Don Athula

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **135**   Type: **Poster**

Relating Initial Distribution to Beam Loss on the Front End of a Heavy-Ion Linac Using Machine Learning

Wednesday, 2 November 2022 17:01 (2 minutes)

Presenter: TRAN, Anthony (student@msu.edu;member@msu.edu)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **136**   Type: **Poster**

Machine learning-based surrogate model construction for optics matching at the European XFEL

Wednesday, 2 November 2022 17:03 (2 minutes)

Presenter: ZHU, Zihan (DESY)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **137**

Type: **Poster**

An Efficient Classifier-Based Surrogate Assisted Evolutionary Algorithm

Wednesday, 2 November 2022 17:05 (2 minutes)

Presenter: PIERCE, Christopher (member@cornell.edu;alum@cornell.edu;student@cornell.edu)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **138**   Type: **Poster**

Image Segmentation for Automated Sample Alignment in Neutron Scattering Experiments

Wednesday, 2 November 2022 17:07 (2 minutes)

Presenter: HENDERSON, M. (RadiaSoft, LLC)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **139**

Type: **Poster**

Optimization of dynamic aperture for the Electron-Ion Collider

Wednesday, 2 November 2022 17:09 (2 minutes)

Presenter: MARX, Daniel

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **140**   Type: **Poster**

Data-driven modelling of laser-plasma experiments enabled by large datasets

Presenter: ANTOINE, Andre (University of Michigan)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **141**   Type: **Poster**

Updates on the surrogate model design for MUED

Wednesday, 2 November 2022 17:13 (2 minutes)

Presenter: SOSA, Salvador (UNM)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **142**

Type: **Poster**

Prospects for Machine Learning and Pulse Shaping in the Scorpius Accelerator

Wednesday, 2 November 2022 17:15 (2 minutes)

Presenter: SCOTT, E.R. (NNSS)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **143**   Type: **Poster**

Exploring and Applying Different Machine Learning Techniques in a Synchrotron

Wednesday, 2 November 2022 17:17 (2 minutes)

Co-author: BROWN, Kevin (C-AD)

Presenter: HUANG, Bohong (Stony Brook University)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **144**   Type: **Poster**

Design Optimization and In Situ Surrogate Modeling Activities in the Beam, Plasma & Accelerator Simulation Toolkit (BLAST)

Presenter: HUEBL, Alex (LBNL)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **145**   Type: **Poster**

Neural Network Surrogate Priors for Efficient Bayesian Optimization

Wednesday, 2 November 2022 17:21 (2 minutes)

Presenter: ROUSSEL, Ryan (SLAC National Laboratory)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **146**   Type: **Poster**

Longitudinal Phase Space Manipulation at the LCLS using Neural Networks and Bayesian Optimization

Wednesday, 2 November 2022 17:23 (2 minutes)

Presenter: EDELEN, Auralee (SLAC)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **147**   Type: **Poster**

Learning-based Optimisation of Particle Accelerators Under Partial Observability Without Real-World Training

Wednesday, 2 November 2022 17:25 (2 minutes)

Presenter: KAISER, Jan (Deutsches Elektronen-Synchrotron DESY)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **148**   Type: **Poster**

APPLICATIONS OF MACHINE LEARNING IN PHOTO-CATHODE INJECTORS

Wednesday, 2 November 2022 17:27 (2 minutes)

Presenter: ASLAM, Aasma

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **149**   Type: **Poster**

Xopt: A Simplified Framework for Optimization of Arbitrary Problems using Advanced Algorithms

Wednesday, 2 November 2022 17:29 (2 minutes)

Presenter: ROUSSEL, Ryan (SLAC National Laboratory)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **150**   Type: **Poster**

Fast THz Radiation Optimization for Linear Accelerator using Surrogate Model

Wednesday, 2 November 2022 17:31 (2 minutes)

Presenter: XU, Chenran (member@kit.edu;employee@kit.edu)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **151**   Type: **Poster**

Automatic Optimization of X-ray Free-Electron Laser at SACLA

Wednesday, 2 November 2022 17:33 (2 minutes)

Presenter: MAESAKA, Hirokazu (Spring8)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **152**   Type: **Poster**

A Smart Alarm for the CEBAF Injector

Wednesday, 2 November 2022 17:35 (2 minutes)

Presenter: TENNANT, Chris (Jefferson Laboratory)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **153**
Type: **Poster**

Continuous Anomaly Detection and Labeling for the Fermilab Linac

Wednesday, 2 November 2022 17:37 (2 minutes)

Presenter: ST. JOHN, Jason (Fermilab)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **154**   Type: **Poster**

BPM measurement prediction based on HOM signals using Machine Learning

Wednesday, 2 November 2022 17:11 (2 minutes)

Presenter: DIAZ CRUZ, Jorge (University of New Mexico)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **155**　　　　　　　　　　　　　　　　　　　　Type: **Poster**

Classification and Prediction of Superconducting Magnet Quenches

Wednesday, 2 November 2022 16:45 (2 minutes)

Presenter: CURTIS-EINSTEIN, Joshua (RadiaSoft, LLC)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **156**

Type: **Poster**

Apply Machine Learning in Orbit Control and Accelerator Stabilization

Wednesday, 2 November 2022 17:39 (2 minutes)

Presenter: DONG, Zeyu (Stony Brook University)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **157**   Type: **Poster**

Machine Learning to Support the ATLAS Linac Operations at Argonne

Wednesday, 2 November 2022 17:41 (2 minutes)

Presenter: MUSTAPHA, Brahim (ANL)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: 158   Type: **Poster**

Design Optimization and In Situ Surrogate Modeling Activities in the Beam, Plasma & Accelerator Simulation Toolkit (BLAST)

Wednesday, 2 November 2022 17:43 (2 minutes)

Presenter: HUEBL, Axel (Lawrence Berkeley National Laboratory)

Session Classification: Poster Session (cold drinks and snacks)

Contribution ID: **159**   Type: **Poster**

Data-Driven Chaos Indicators for Beam Dynamics

Wednesday, 2 November 2022 17:45 (2 minutes)

Presenter: RAINER, Robert (Brookhaven National Laboratory)

Session Classification: Poster Session (cold drinks and snacks)