# Machine Learning Collaboration Meeting



### Report of Contributions

Contribution ID: 1 Type: not specified

#### Welcome & Introduction

Wednesday, 21 August 2024 08:30 (30 minutes)

**Presenter:** BROWN, Kevin (C-AD)

Contribution ID: 2 Type: not specified

### Overview of polarized proton acceleration and highlights of the current RHIC run

Wednesday, 21 August 2024 09:00 (45 minutes)

**Presenter:** SCHOEFER, Vincent (CAD)

Contribution ID: 3 Type: not specified

#### Status of accurate accelerator models for L2B, Booster, BtL, and AGS

Wednesday, 21 August 2024 09:45 (45 minutes)

**Presenter:** HAMWI, Eiad (Cornell University)

Contribution ID: 4 Type: **not specified** 

### Experimental examples of Bayesian Optimization at BNL

Wednesday, 21 August 2024 11:00 (45 minutes)

Presenter: LIN, Lucy (Cornell University)

Contribution ID: 5 Type: **not specified** 

## Overview of Uncertainty Quantification and application to p-p acceleration

Wednesday, 21 August 2024 16:00 (30 minutes)

**Presenter:** URBAN, Nathan (Brookhaven National Laboratory)

Contribution ID: 6 Type: **not specified** 

### Basis of Bayesian Optimization - connecting theory to experiment

Wednesday, 21 August 2024 16:30 (30 minutes)

Presenter: WANG, Yinan

Contribution ID: 7 Type: **not specified** 

## Connecting Bmad and BNL control systems - Digital Twin preparations

Thursday, 22 August 2024 09:15 (45 minutes)

Presenter: HOCK, Kiel (Brookhaven National Laboratory)

Contribution ID: 8 Type: not specified

## Application options of the JLAB approach to reinforcement learning

Thursday, 22 August 2024 08:30 (45 minutes)

Presenter: KASPARIAN, Armen

Contribution ID: 9 Type: **not specified** 

# Applications of international ML experiences in the Linac to RHIC chain

Thursday, 22 August 2024 10:00 (45 minutes)

**Presenter:** EDELEN, Auralee (SLAC/Stanford)

Contribution ID: 10 Type: not specified

#### Bmad Julia - what new code do ML applications need

Thursday, 22 August 2024 11:00 (45 minutes)

 $\textbf{Presenter:} \ \ SAGAN, David (faculty@cornell.edu;member@cornell.edu;alum@cornell.edu;employee@cornell.edu)\\$ 

Contribution ID: 11 Type: not specified

#### Improved emittance measurements

Thursday, 22 August 2024 11:45 (45 minutes)

Presenter: EDELEN, Jon (RadiaSoft)

Contribution ID: 12 Type: not specified

#### Steps toward digital twins

Thursday, 22 August 2024 13:30 (30 minutes)

**Presenter:** LIN, Lucy (Cornell University)

Contribution ID: 13 Type: not specified

#### Summary, and brain storming

Thursday, 22 August 2024 14:00 (45 minutes)

**Presenter:** HOFFSTAETTER, Georg (Cornell)

Contribution ID: 14 Type: **not specified** 

# Status of bunch-merge simulations and experiments using Reinforcement Learning

Wednesday, 21 August 2024 11:45 (45 minutes)

Presenter: GAO, Yuan