

# CLAS COLLABORATION AI SESSION INTRODUCTION

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William Phelps

Christopher Newport University/Jefferson Lab

# AI Session Introduction

- We wanted to highlight some ongoing AI activities at the lab and within our collaboration
  - Invited Guest Speaker from the Data Science Group
- Discuss the formation of an AI Group that meets regularly



Obligatory Dall-E 3 Image

# Morning Session I

THURSDAY, 14 MARCH



09:00 → 10:30

**Plenary**

📍 F113

**Convener:** William Phelps (Christopher Newport University/Jefferson Lab)

09:00

**Update from Jefferson Lab**

🕒 25m

**Speaker:** David Dean (TJNAF)

09:30

**AI Session Introduction**

🕒 10m

**Speaker:** William Phelps (Christopher Newport University/Jefferson Lab)

09:45

**An Introduction to the Jefferson Lab Data Science Department and its Capabilities**

🕒 25m



(Virtual)

**Speaker:** Daniel Lersch (Jefferson Lab)

10:15

**CLAS AI Group Discussion**

🕒 15m

**Speakers:** Richard Tyson (Jefferson Lab), William Phelps (Christopher Newport University/Jefferson Lab)

# Morning Session II

11:00

→ 12:30

Plenary

📍 F113



Convener: Richard Tyson (Jefferson Lab)

11:00

**Modeling Dilepton Background using Boosted Decision Trees**

🕒 15m



Speaker: Pierre Chatagnon (Jefferson Lab)



Background\_modeli...

11:20

**Lepton Identification using TMVA Methods**

🕒 15m



Speaker: Mariana Tenorio Pita (Old Dominion University)

11:40

**Photon Classification with AI at CLAS12**

🕒 15m



Speaker: Gregory Matousek (Duke University)

12:00

**Measurement of the nucleon spin structure functions for  $0.01 < Q^2 < 1 \text{ GeV}^2$  using CLAS**

🕒 25m



Speaker: Sebastian Kuhn (Old Dominion University)

# Morning Session 2.5

11:00 → 12:30

## Plenary

F113 **Convener:** Richard Tyson (Jefferson Lab)

11:00

### Modeling Dilepton Background using Boosted Decision Trees

15m **Speaker:** Pierre Chatagnon (Jefferson Lab) Background\_modeli...

11:20

### Lepton Identification using TMVA Methods

15m **Speaker:** Mariana Tenorio Pita (Old Dominion University)

11:40

### Photon Classification with AI at CLAS12

15m **Speaker:** Gregory Matousek (Duke University)

12:00

### Measurement of the nucleon spin structure functions for $0.01 < Q^2 < 1 \text{ GeV}^2$ using CLAS

25m **Speaker:** Sebastian Kuhn (Old Dominion University)

EG-4 Long Paper

# RG-D End of Run Party and Trivia Reminder

Jefferson Lab



Tomorrow: 2-5pm

## *End of Run Group D Party*

Join us for a celebration marking the successful completion of Run Group D

Date: March 15, 2024

Time: 2:00 PM - 5:00 PM

Venue: Residence Facility

For more info, please contact Lamiaa El Fassi ([le334@msstate.edu](mailto:le334@msstate.edu))

## • Physics and CLAS Trivia

- **When:** Today at ~5:30pm
- **Where:** Tradition Brewing
- **Who:** Everyone is invited
- **What:** Trivia
  - 5 rounds of 5 questions, with one picture round.
  - Most likely people will go for dinner afterwards.

Organized by  
Student/Postdoc  
Group



November 2023 SLAM Event