



— AI/ML SECTOR OF THE EICUG SOFTWARE WORKING GROUP —

<https://eic.ai/>



WILLIAM & MARY

CHARTERED 1693



Second Workshop on Artificial Intelligence for the Electron Ion Collider – Oct 10-14, 2022

Welcome to Williamsburg! 😊



Welcome to William & Mary!

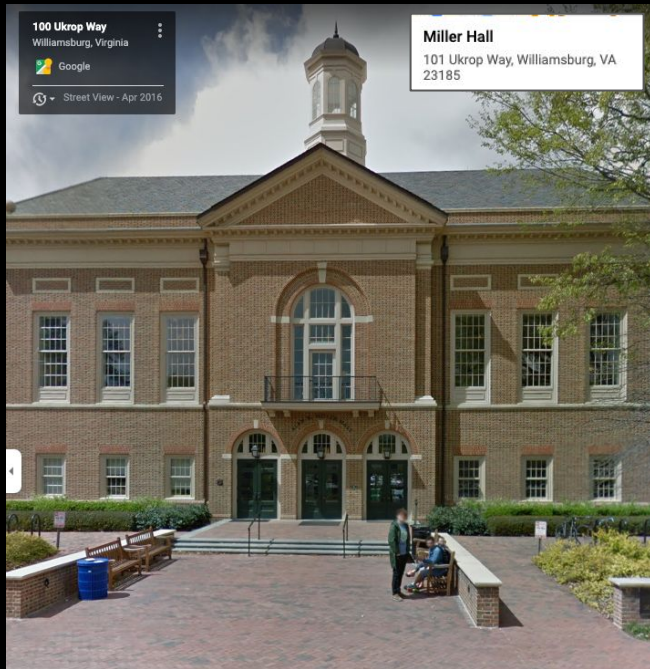


- I am really excited to be hosting this important community event!
- This is the second annual workshop on AI for EIC.
- For the second year, we have more than 200 registered participants — with more than 250 users in the ai4eic slack channel
 - This year we could have an hybrid event!
 - In-person 60, Remotely 144
- Also, for the first time we are hosting an hackathon event
 - 88 people expressed interest in participating of which 37 in person!
- Busy agenda, lots to discuss on activities/opportunities on AI for EIC... coffee breaks (1 morning and 1 afternoon) will keep us focused :)



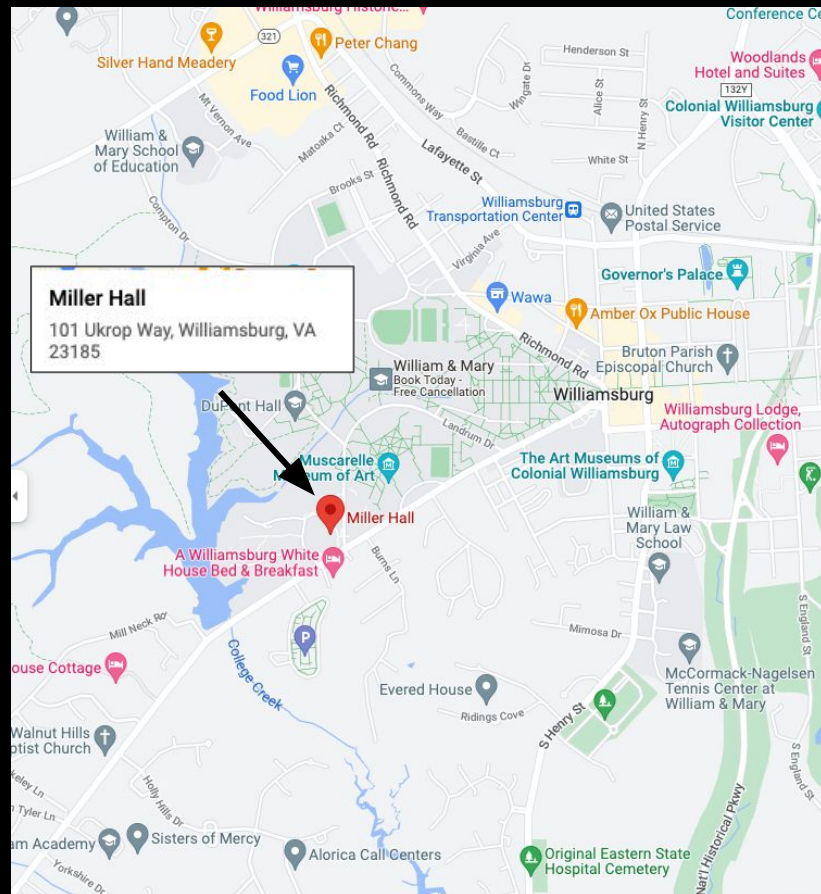
Map

<https://mason.wm.edu/about/visiting/directions/index.php>




The workshop will take place
in Room 1019 of Miller Hall
(+ 3 breakout rooms 1021-1022-1023)

Mon - Thu 10am-5pm



Lunch (on your own)

<https://indico.bnl.gov/e/AI4EIC>



2nd workshop
on Artificial
Intelligence for
the Electron Ion
Collider

10-14 Oct 2022
William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall

Enter your search term

Artificial Intelligence for the Electron Ion Collider

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Advisory Committee

This event follows the productive experience of the first AI4EIC workshop held in 2021 at CFNS and is organized by the EICUG AI WG. The scope of this second workshop is to cover all active and potential areas of applications of AI/ML for the EIC.

The workshop will include sessions on (i) accelerator and detector design (EPIC and potentially detector-2), (ii) connections to theory, (iii) analysis, (iv) reconstruction and particle identification, (v) infrastructure and frontiers in AI/ML and (vi) streaming readout, which will allow to discuss different problems, perspectives and leading-edge solutions.



During the workshop we will have AI/ML **tutorial sessions** provided by experts (academia, national labs, industry). The workshop will also host a **Hackathon** event (on October 14, whole day event), and a cash prize will be given to the solution winning the competition.

During the first day, we will have talks with perspectives on AI/ML-related research from funding agencies.

AI/ML will be an essential part of all phases of the future EIC and is already contributing to its realization starting from the design and R&D phases. This workshop is a great opportunity to update the community on the progress of ongoing projects and future plans, with discussions on multiple cross-cutting topics that bring together theorists, experimentalists, and AI/ML practitioners.

Live document is [here](#)

Instructions on meeting coordinates will be sent via email using the information provided in the registration form.



powered by **aws**

Local Restaurants and Stores (a sampling)

CASUAL DINING:

The Cheese Shop (gourmet foods; sandwiches to go)
410 W Duke of Gloucester St
Merchants Square
(757) 220-0298
cheeseshopwilliamsburg.com

College Delly
336 Richmond Rd
(757) 229-3915
collegedelly.com

Culture Cafe
747 Scotland St.
(757) 378-2556
culturecafeva.com

Brickhouse Tavern
755 Scotland St
(757) 345-6060
welcometobrickhouse.com

Chick Fil A Tribe Square
249 Richmond Rd
(757) 565-7482
chick-fil-a.com/locations/va/william-mary

Paul's Deli Restaurant
761 Scotland St
(757) 229-8976
paulsdeliwilliamsburg.com

FINE DINING

Berret's Seafood Restaurant
& Taphouse Grill
199 S Boundary St
Merchants Square
(757) 253-1847
berretts.com

Blue Talon Bistro
420 Prince George St
(757) 476-2583
bluetalonbistro.com

ESPRESSO, COFFEE, etc.

Aroma's
431 Prince George St
Merchants Square (757)
221-6676
aromasworld.com

Aroma's in Swem Library
400 Landrum Drive

Daily Grind
240A Gooch Dr.,
adjacent to Sadler Center
(757) 221-2918

Illy Café
435 W. Duke of Gloucester St.
(757) 208-0006

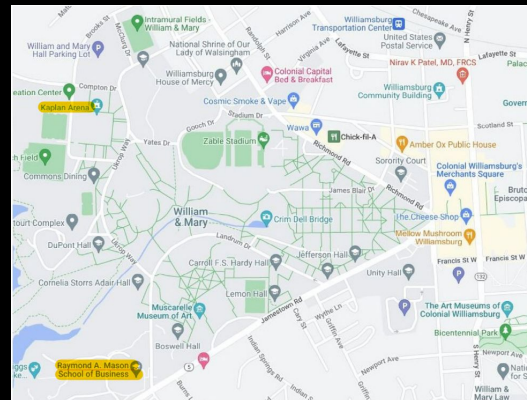
GROCERY and CONVENIENCE STORES

Food Lion (about 1/2 mile from the Sadler Center)
5601 Richmond Rd Williamsburg
Shopping Center (757) 565-1321

Wawa Food Market
315 Richmond Rd
(757) 228-1322

PHARMACIES

Walgreens (about 1/2 mile from Sadler Center)
1309 Richmond Rd (intersection Richmond Rd & Lafayette St.)
(757) 229-0962



Wifi / Zoom

- Eduroam
 - <https://www.wm.edu/offices/it/services/network/wireless/eduroam/index.php>
- For Guest Wireless Network Access, follow instructions here:
 - <https://www.wm.edu/offices/it/services/network/wireless/guests/index.php>
 - For more than 24 hours access everyone should add the following email address, hpower@wm.edu, request access for a week. Heather Power will be sent an email to confirm.



- Meeting broadcast on zoom
 - Coordinates sent by email and posted on indico

Parking

<https://indico.bnl.gov/event/16586/page/456-parking>

There will be 10 reserved parking spots all week in the Boswell lot across the street from the Miller Hall/Mason School of Business. That lot also has visitor parking spots; you pay through the Passport app. In addition, there will be 15 reserved spots at Kaplan Arena for the week. From this location it's about 5-7 minutes to walk to the business school. The parking garage next to Miller Hall does not have visitor parking nor reserved spots for the workshop.

<https://www.wm.edu/offices/auxiliary/parkingandtransportation/visitors/parking/index.php>

▼ How to Use the App

View a [short video](#) of how the system works.

The PassportParking app is free to download through the [App Store](#) and [Google Play](#).



Code of Conduct

It is the policy of the AI4EIC Workshop that all participants, including attendees, vendors, staff, volunteers, and all other stakeholders will conduct themselves in a professional manner that is welcoming to all participants and free from any form of discrimination, harassment, or retaliation. Participants will treat each other with respect and consideration to create a collegial, inclusive, and professional environment at the conference. Creating a supportive environment to enable scientific discourse is the responsibility of all participants.

Participants will avoid any inappropriate actions or statements based on individual characteristics such as age, race, ethnicity, sexual orientation, gender identity, gender expression, marital status, nationality, political affiliation, ability status, educational background, or any other characteristic protected by law. Disruptive or harassing behavior of any kind will not be tolerated. Harassment includes but is not limited to inappropriate or intimidating behavior and language, unwelcome jokes or comments, unwanted touching or attention, offensive images, photography without permission, and stalking.

Violations of this code of conduct policy should be reported to the organizers. Sanctions may range from verbal warning, to ejection from the meeting without refund, to notifying appropriate authorities. Retaliation for complaints of inappropriate conduct will not be tolerated. If a participant observes inappropriate comments or actions and personal intervention seems appropriate and safe, they should be considerate of all parties before intervening.

Covid policy

Wearing a mask is not required but masking is always welcome anywhere at William & Mary and the last few years have clearly shown that masks dramatically reduce the spread of airborne infections, including COVID-19.

Masks are required in the Student Health Center.

Do not attend work, class or gatherings if you are sick.

Test if you suspect COVID-19.

For more info:

https://www.wm.edu/about/administration/emergency/current_issues/coronavirus/

Thanks and Support

We are extremely grateful to William & Mary for generously supporting this event, both for the in-person and remote participation (e.g., resources via cloud during hackathon), as well as for the hackathon final prize: this support is vital and helps us grow as a stronger community engaged in AI-related research for the EIC science.

Big thanks to the staff of the Data Science Department of William & Mary, and Information Technology.

Many thanks also to the Hackathon Team that worked tirelessly to make this event possible.

Thank you all as well for coming here / connecting to AI4EIC!!

AI4EIC

EIC has the unique opportunity to start incorporating AI from the very beginning and to systematically leverage on it during all phases of the project.

AI will be an integral part of the EIC software and we will take advantage of intelligent decisions in all aspects of data processing from detector readout and control to analysis.

To work in this direction, there is an AI Working Group (AI) as part of the SWG. The AIWG will serve as an entry point to AI applications and will organize workshops, tutorials, and Kaggle-like challenges.

Educational activities are aimed at disseminating AI in the EIC community.

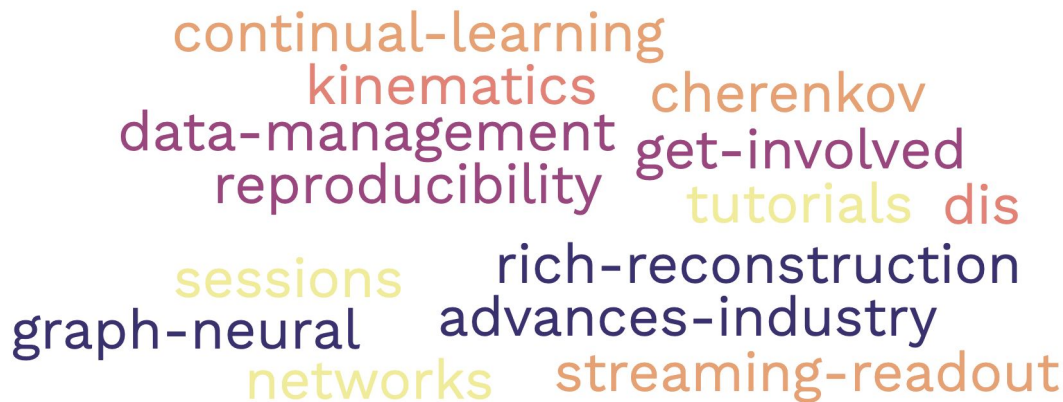
<https://eic.ai>
<http://www.eicug.org/content/wg.html>

Survey

Hackathon:

Tutorials: <https://indico.bnl.gov/event/16586/page/426-tutorials>

- A detailed survey was sent few months ago now <https://forms.gle/6LADKTGaX7DeTVE46>
- We want to learn more about our community, and we asked for feedback on what the needs and interests are, and what potential opportunities
- Feedback and key-words:



A word cloud containing various keywords from the survey feedback. The words are arranged in a roughly rectangular shape and include: continual-learning, kinematics, cherenkov, data-management, get-involved, reproducibility, tutorials, dis, sessions, rich-reconstruction, graph-neural, advances-industry, networks, and streaming-readout. The words are in different colors (orange, purple, yellow, blue) and sizes.

We organized our monthly **meetings** and this event (**workshop** and **hackathon**) taking into account this feedback

We have **tutorial** sessions every day of the workshop

For more details on the survey, see <https://indico.bnl.gov/event/15636/>

Meetings

10/10-14/2022

AI4EIC Workshop

2nd workshop, hosted by College of William and Mary,
Williamsburg, VA October 10-14, 2022
For registration:
<https://indico.bnl.gov/e/AI4EIC>.

+ Event Details

In presence + virtual
<https://indico.bnl.gov/e/AI4EIC>

8/24/2022

AI WG 5th meeting

9am - 11am ET

5th meeting of the EICUG AI WG
topic-oriented: streaming readout + continual learning

Virtual
<https://indico.bnl.gov/event/16605/>

7/20/2022

AI WG 4th meeting

9am - 11am ET

4th meeting of the EICUG AI WG
topic-oriented: detector design (re-scheduled; slides uploaded)

Virtual
<https://indico.bnl.gov/event/16328/>

6/22/2022

AI WG 3rd meeting

9am - 11am ET

3rd meeting of the EICUG AI WG
topic-oriented: uncertainty quantification

Virtual
<https://indico.bnl.gov/event/16073/>

5/4/2022

AI WG 2nd meeting

11am - 12pm ET

2nd meeting of the EICUG AI WG
Survey: <https://forms.gle/6LADKtGaX7DeTVE46>

Virtual
<https://indico.bnl.gov/event/15636/>

CALENDAR

3/30/2022

AI WG kickoff meeting

11am - 12pm ET

Kickoff meeting of the EICUG AI WG

Virtual
<https://indico.bnl.gov/event/14923/>

9/7-10/2021

AI4EIC Workshop

1st workshop, hosted by CFNS/BNL
September 7-10, 2021

Virtual

Topic-oriented: streaming readout, continual learning,
detector design, uncertainty quantification

See, e.g.:

<https://indico.bnl.gov/event/16073/>

<https://indico.bnl.gov/event/16328/>

<https://indico.bnl.gov/event/16605/>

Workshop Goals

- Goal of this second workshop is to cover all active and potential areas of applications of AI/ML for the EIC.
- Extend the scope of first workshop (focused on experimental applications only) to identify cross-cutting aspects and bring together different communities (accelerator, detector, theory, CS/DS)
- Identify impact and opportunities of AI in EIC
 - Write workshop report paper — comments from participants will be integrated
 - The discussion from this workshop is anticipated to contribute to the LRP WP — will be made available on the AI4EIC webpage <https://eic.ai>

Live Document

https://docs.google.com/document/d/13BWnq_ywTYs__2zA0beeDob8pcuiiBiVqXNk33Kk8LY/edit



Live Document:

Artificial Intelligence for the Electron Ion Collider

[Timetable](#)

This is the live meeting notes (Q&A) document for the second workshop dedicated to Artificial Intelligence for the Electron Ion Collider, which will take place at William & Mary from **October 10 to October 14, 2022**.

This will be used during the workshop to collect questions and replies

Conveners will monitor discussion/questions in the live document

Workshop Structure

Tutorial on Multi-objective Optimization (Meta)

Mon, October 10, morning: introduction and overview

Mon, October 10, afternoon: Design

10:00	Welcome & Intro to AI4EIC room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 10:00 - 10:25
	EIC schedule and overview Elke-Caroline Aschenauer et al. room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 10:25 - 11:05
11:00	Discussion room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 11:05 - 11:20
	Coffee break room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 11:20 - 11:40
	DOE perspective on opportunities for AI in nuclear physics Manouchehr Farkhondeh room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 11:40 - 12:10
12:00	Discussion room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 12:10 - 12:30
	Lunch (on your own) room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 12:30 - 13:30
13:00	NSF perspective on opportunities for AI in nuclear physics Bogdan Mihaila room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 13:30 - 14:00

DOE and NSF Perspectives

14:00	Tutorial on Ax/Botorch: Multi-Objective Optimization Max Balandat room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 14:00 - 14:45
	Discussion room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 14:45 - 14:55
15:00	AI-assisted detector design / updates from ECCE to EPIC karthik suresh room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 14:55 - 15:15
	Q/A room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 15:15 - 15:20
	AI-driven detector design for the EIC Benjamin Nachman room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 15:20 - 15:40
	Q/A room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 15:40 - 15:45
	Coffee Break room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 15:45 - 16:00
16:00	ML application for beam optics control in the LHC Elena Fol room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 16:00 - 16:20
	Q/A room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 16:20 - 16:25
	AI/ML overview for accelerator design activities Todd Satogata room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 16:25 - 16:45
	Q/A room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 16:45 - 16:50
	Discussion room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall 16:50 - 17:00

Workshop Structure

Tue, October 11, morning: theory/experiment connections

10:00	ML for QCD Analysis - 3D Imaging	<i>simonetta liuti</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:00 - 10:20
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:20 - 10:25
	Modeling Hadronization Using ML and the Lund String Model	<i>Tony Menzo</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:25 - 10:45
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:45 - 10:50
11:00	Modeling Hadronization Using ML and the Cluster Model	<i>Slodmok Andrzej</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:50 - 11:10
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:10 - 11:15
	Coffee Break	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:15 - 11:30
	A(I)DAPT	<i>Astrid Hiller Blin</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:30 - 11:50
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:50 - 11:55
12:00	Femtосcale Imaging of Nuclei using ML and Exascale Platforms	<i>nobuo sato</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:55 - 12:15
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:15 - 12:20
	Differentiable Simulations	<i>Benjamin Nachman</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:20 - 12:40
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:40 - 12:45
	Discussion	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:45 - 13:00

Tutorial on Unfolding (LBNL, NERSC)

Tue, October 11, afternoon: theory/experiment connections

14:00	Reconstructing DIS and SIDIS properties	<i>Connor Pecar</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:00 - 14:20
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:20 - 14:25
	Machine Learning in Spectroscopy and Partial Wave Analysis	<i>William Phelps</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:25 - 14:45
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:45 - 14:50
	Fast Detector Simulations with Machine Learning	<i>David Shih</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:50 - 15:10
15:00	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:10 - 15:15
	Coffee break	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:15 - 15:35
	overview talk on ML-based unfolding	<i>Anja Butter</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:35 - 15:55
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:55 - 16:00
16:00	Tutorial on Unfolding	<i>Fernando Torales - Acosta et al.</i>
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	16:00 - 16:45
	Discussion	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	16:45 - 17:00
17:00		

Workshop Structure

Wed, October 12, morning: Reconstruction & PID

10:00	Interpretable Networks for Identifying Leptons	Daniel Whiteson
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:00 - 10:25
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:25 - 10:30
	(tentative) Deep learning for jet tagging	Raghav Kunnawalkam Elayavalli
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:30 - 10:55
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:55 - 11:00
11:00	Machine Learning in ACTS	Corentin Allaire
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:00 - 11:17
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:17 - 11:20
	Coffee break	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:20 - 11:30
	(tentative) Muon Identification with Deep Learning at EIC	William Phelps
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:30 - 11:45
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:45 - 11:48
12:00	ML particle identification with measured shower profiles from calorimetry	Chao Peng
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:48 - 12:03
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:03 - 12:06
	Lambda event tagging at CLAS12	Matthew McEneaney
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:06 - 12:21
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:21 - 12:24
	ML for calorimetry	Nathan Branson
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:24 - 12:39
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:39 - 12:42
	Data-driven learning: Flux+Mutability	James Giroux
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:42 - 12:57
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:57 - 13:00

Tutorial on MLFlow (JLab)

Wed, October 12, afternoon: Infrastructure and Frontiers

14:00	Tutorial on MLFlow	Diana McSpadden
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:00 - 14:45
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:45 - 14:50
	Coffee break	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:50 - 15:00
15:00	Foundation Model Infrastructure	Svitlana Volkova
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:00 - 15:13
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:13 - 15:18
	AI/ML hardware co-design	Frank Liu
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:18 - 15:31
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:31 - 15:35
	Machine Learning with FPGA	Nhan Tran
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:35 - 15:48
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:48 - 15:52
16:00	AI/ML with HPC	Joo Balint
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:52 - 16:05
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	16:05 - 16:10
	break	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	16:10 - 16:15
	Panel Discussion	Jin Huang et al.
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	16:15 - 17:00
17:00		

Workshop Structure

Thu, October 13, morning: Streaming Readout

10:00	(tentative) AI in SRO at INDRA/ASTRA	Markus Diefenthaler
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:00 - 10:20
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:20 - 10:22
	Fast ML for FPGA	Sergey Furletov
11:00	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:22 - 10:42
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:42 - 10:44
	AI for real time applications in next generation HEP detectors	Roberto Ammendola
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	10:44 - 11:04
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:04 - 11:06
	Coffee break	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:06 - 11:16
	AI-based data reduction for streaming DAQ	Jin Huang
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:16 - 11:36
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:36 - 11:38
	Streaming Readout for Next Generation Electron Scattering Experiments	Mariangela Bondi
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:38 - 11:58
12:00	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	11:58 - 12:00
	ML for Heavy Flavor Identification	Cameron Dean
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:00 - 12:20
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:20 - 12:22
	AI for Experimental Controls	Thomas Britton
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:22 - 12:42
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:42 - 12:44
	Discussion	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	12:44 - 13:00

Tutorial on GNN (BNL)

Thu, October 13, afternoon: Summary and Future

14:00	Tutorial on Graph Neural Networks	Yihui Ren
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:00 - 14:45
	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:45 - 14:50
15:00	Hackathon on October 14	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	14:50 - 15:15
	Coffee break	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:15 - 15:30
	Summaries	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	15:30 - 16:12
16:00	Q/A	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	16:12 - 16:15
	Future	Cristiano Fanelli
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	16:15 - 16:30
	Closing	
	room 1019, William & Mary, Raymond A. Mason School of Business, Alan B. Miller Hall	16:30 - 16:40

Hackathon (Fri, October 14)

The hackathon will take place
in Room 1019 of Miller Hall
(+ 3 rooms 1021-1022-1023)

More than 80 people showed interest in the hybrid hackathon event on October 14

Contacts:

ai4eichackathon@gmail.com

<https://ai4eic.slack.com/signup#/domain-signup>

If you expressed interest, you should have received an email from ai4eichackathon@gmail.com on 10/4/2022

Reminder: start forming teams! We recommend teams be of all in-person or all-remote participants.

Hackathon is Friday, and will begin at **8:45 AM** for anyone not already on a 4 or 5 person team
9 AM for those already on a 4+ person team.

We will be providing AWS computing resources and expect 4 GPUs to be provided per team, but only for teams with more than one team member. If you are working on the problem solo you will need to provide your own computing resources.

There is a cash prize...

Outlook

We plan to have the third annual workshop on Fall 2023

As discussed in the first AI4EIC workshop and hackathon locations will keep being rotated

Interested people should send an email with a proposal to support@eic.ai

More info on <https://eic.ai/how-to-join>

Workshop communication channels

support@eic.ai — General questions regarding the workshop

ai4eichackathon@gmail.com — Questions related to the hackathon

Emails/communications duplicated via:

- Email (from registration)
- Slack <https://ai4eic.slack.com/signup#/domain-signup>



Looking forward to
a productive workshop and hackathon!