



Dear Colleagues,

We write to highlight the forthcoming Workshop:

AI4EIC-Exp - Experimental Applications of Artificial Intelligence for the Electron-Ion Collider
on 7-10 September 2021 <https://indico.bnl.gov/e/AI4EIC-exp>

AI is generating a lot of buzz in the computing world and is often referred to as the revolution of the new millennium as it is becoming ubiquitous in all sectors of everyday life. AI will be an essential part of future experiments like the Electron Ion Collider. AI can provide new insights and discoveries from both experimental and computational data produced at user facilities. For example, “AI techniques that can optimize the design of complex, large-scale experiments have the potential to revolutionize the way experimental nuclear and particle physics is currently done”. In this context, the R&D program of the EIC for the next years could be one of the first experimental programs systematically leveraging AI. An important step in this direction was recently achieved with the first use of AI-driven applications in the design of Particle Identification detectors for EIC. This workshop will address in this strategic moment how AI might contribute to advance research, design and operation of the future EIC. The Workshop will bring together the communities directly using AI technologies and provide a venue for discussion and identifying the specific needs for EIC.

The workshop will take place under the auspices of the Center for Frontiers in Nuclear Science (CFNS <https://www.stonybrook.edu/cfns/>).

A face-to-face meeting at the CFNS was originally planned; but owing to the COVID-19 challenge, the workshop will now proceed via ZOOM.

Sessions will be held 10:00-17:00 (Eastern Time) on each of the four days. A first outline of the workshop programme is available here

<https://indico.bnl.gov/event/10699/timetable/#20210907.detailed>

and will be updated with further details in the coming weeks. The workshop will feature sessions on **Experimental Design and Simulations, Reconstruction/Analysis, Control of Experimental Systems, Detector Readout, and Computing Frontiers**. All discussions will be plenary. The afternoon of the last day will be devoted to discussions on AI4EIC and the path forward and next steps for the community.

We hope you can join in!

All the best,

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