

My Journey in Nuclear Physics

Yeonju Go

Goldhaber Fellow

Brookhaven National Laboratory

RHIC Science Symposium

Brookhaven National Laboratory, NY, USA

2026 May 15

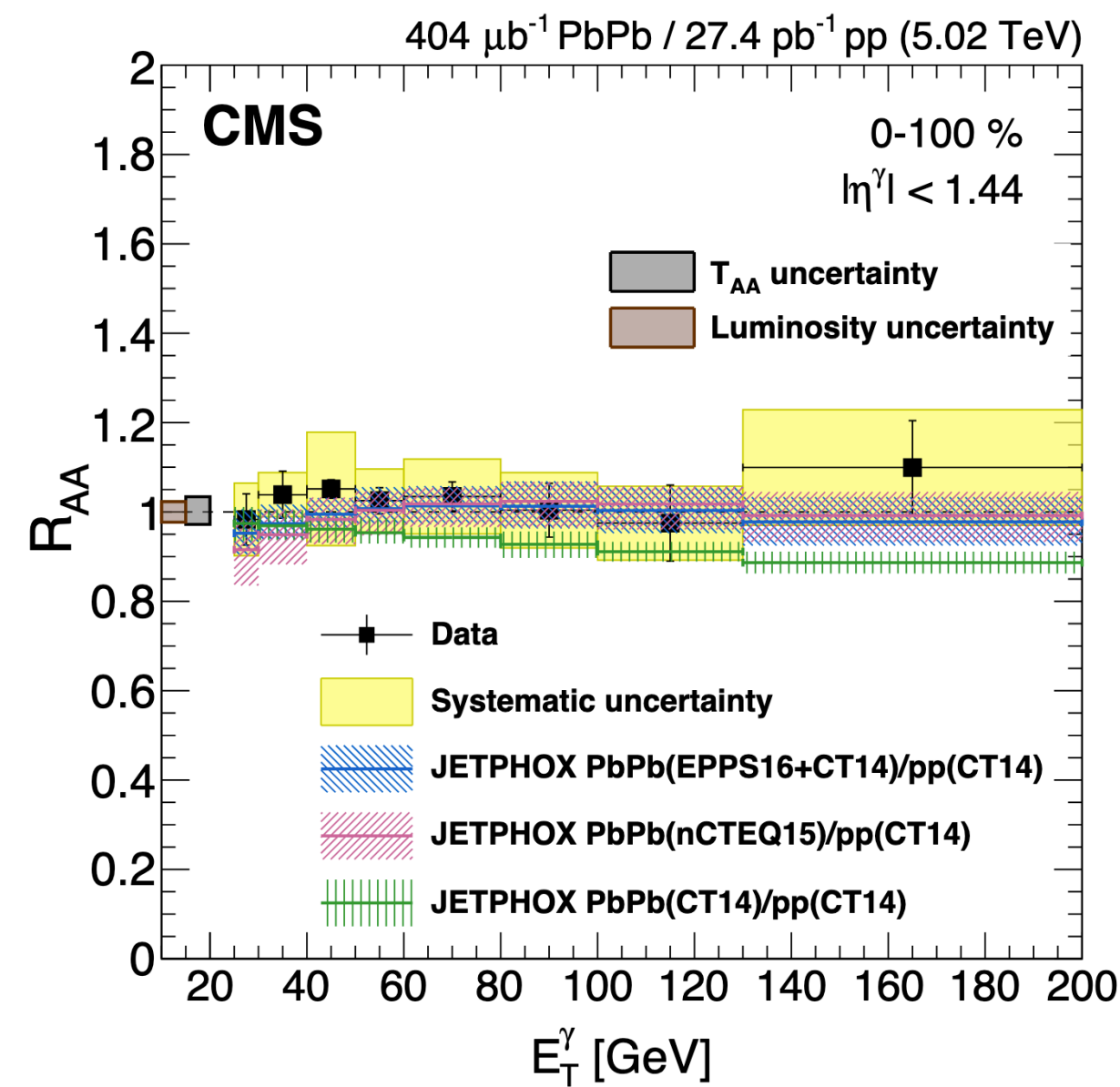
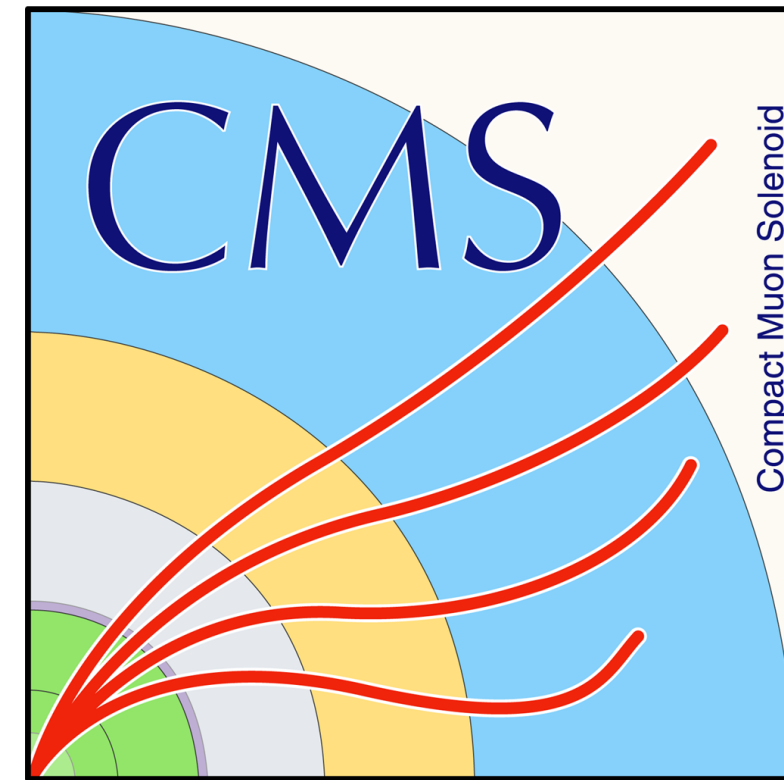
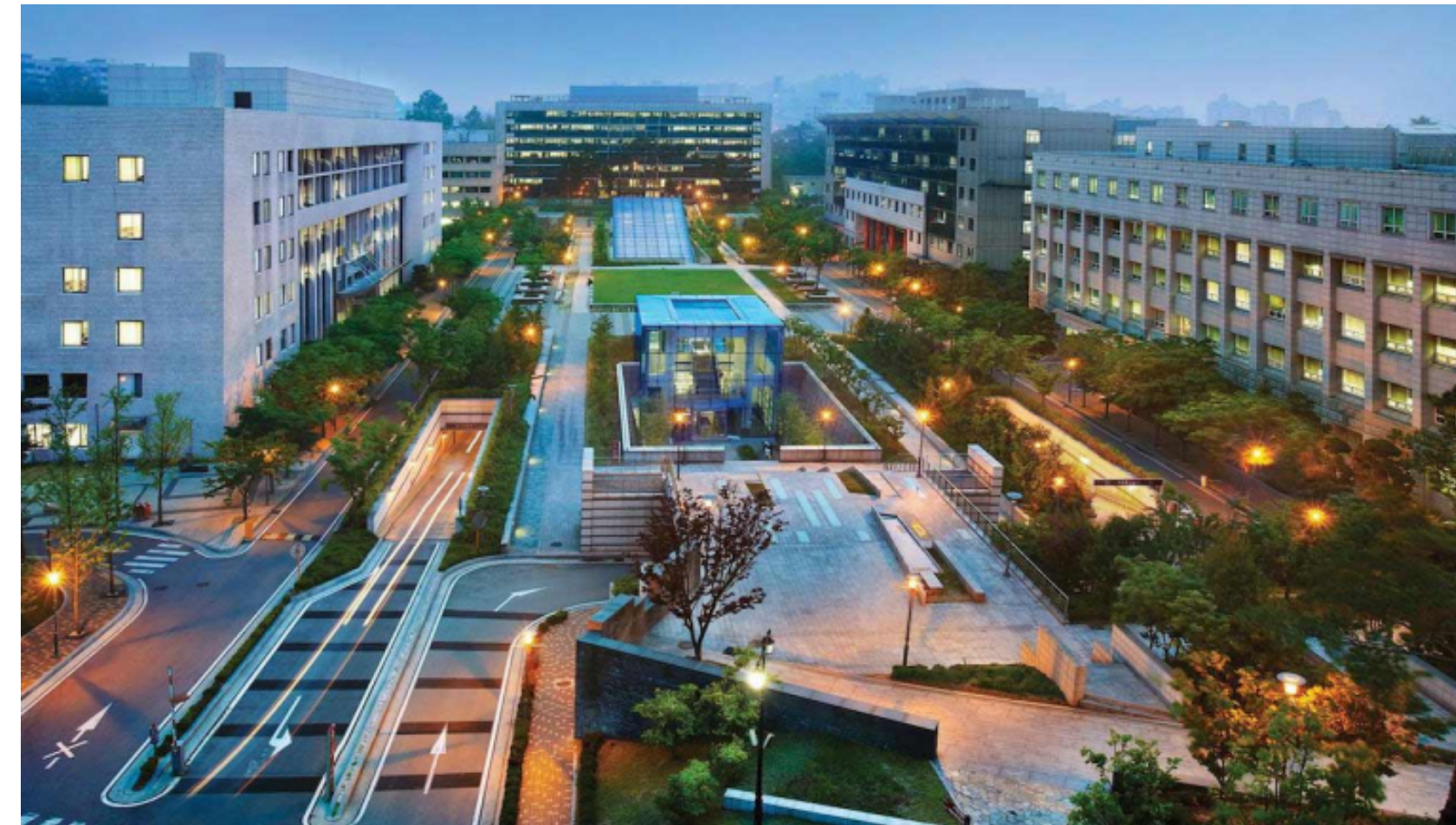


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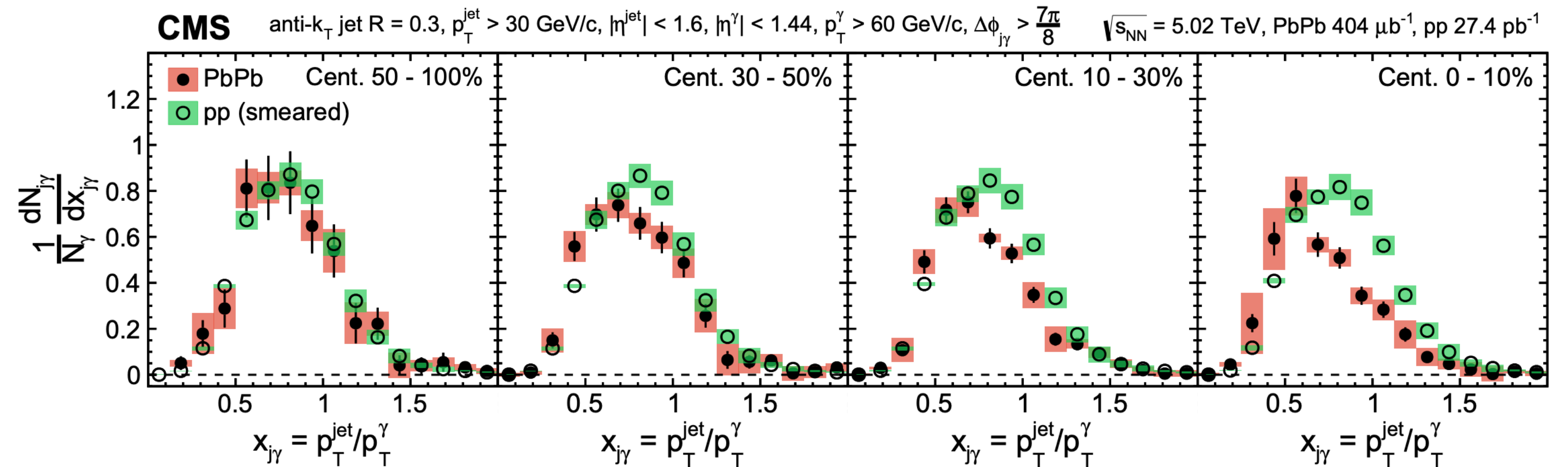
- I Received PhD from **Korea University** in 2020

- ➔ **CMS** experiment

- ➔ Isolated prompt photon R_{AA} , photon-jet correlations



JHEP 07 (2020) 116

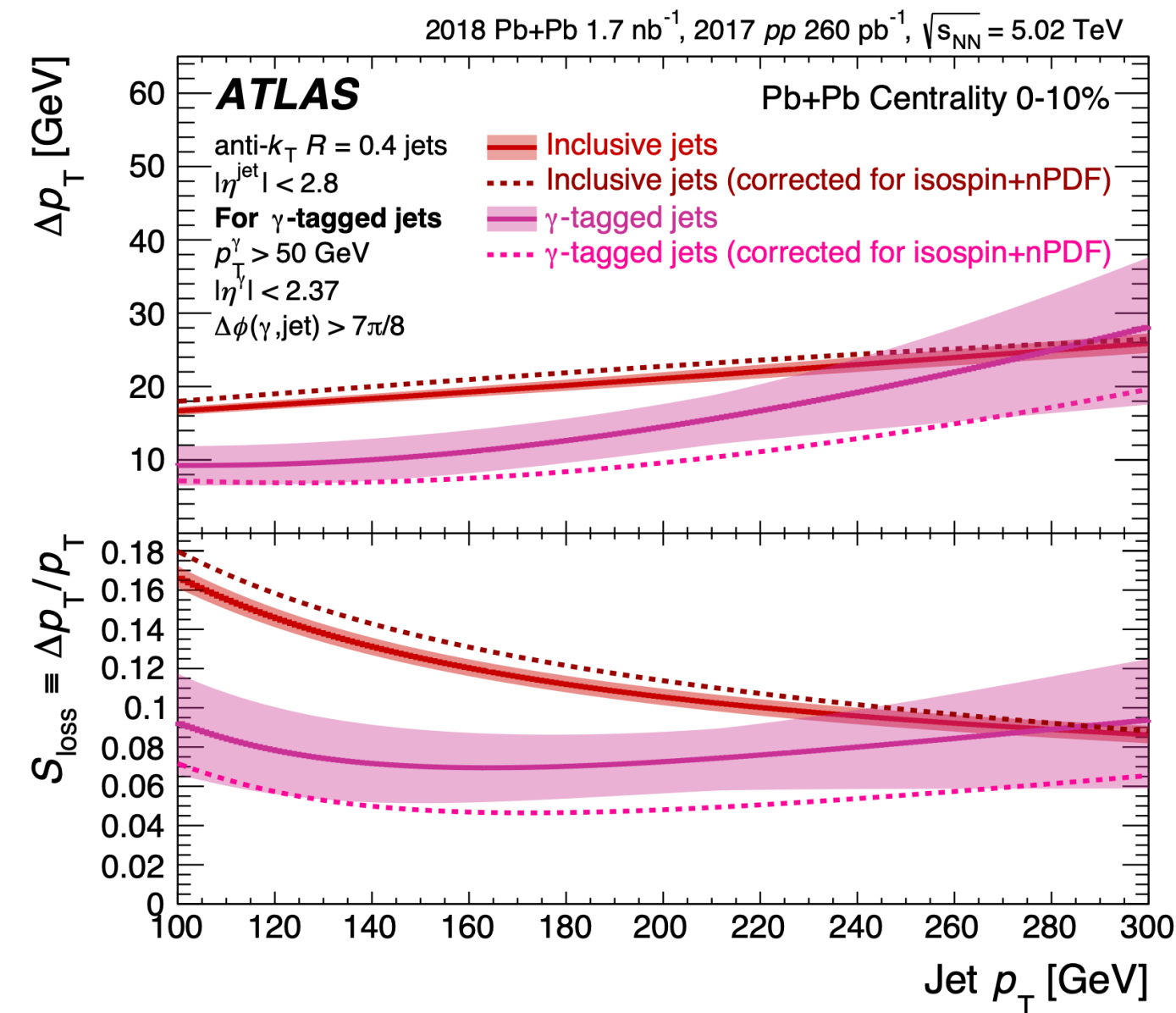


PLB 785 (2018) 14

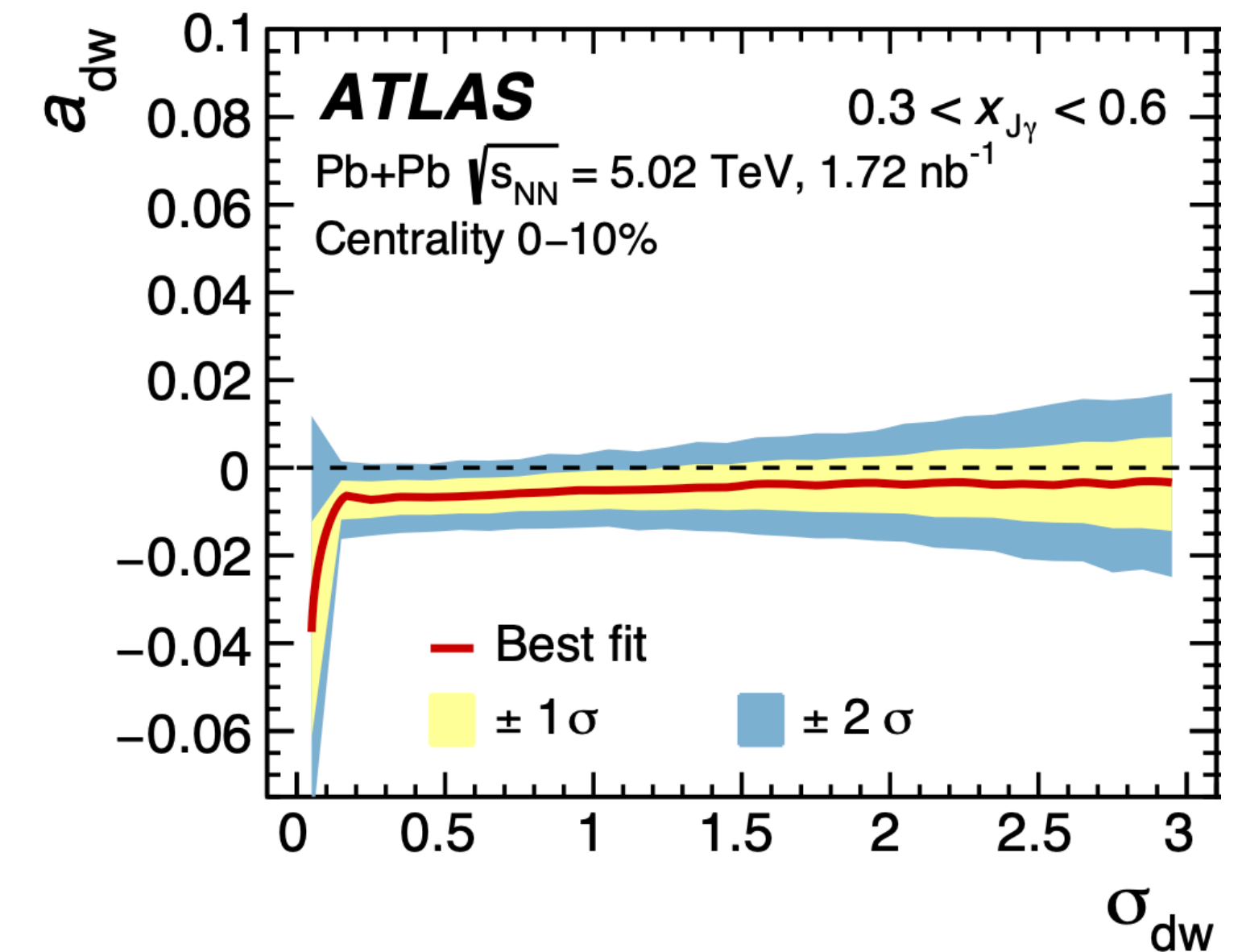
- *Post-doc* at the **University of Colorado Boulder** (2020-2023)

- ➔ **ATLAS** experiment

- ➔ photon-jet R_{AA} ,
jet-hadron correlations



PLB 846 (2023) 138154

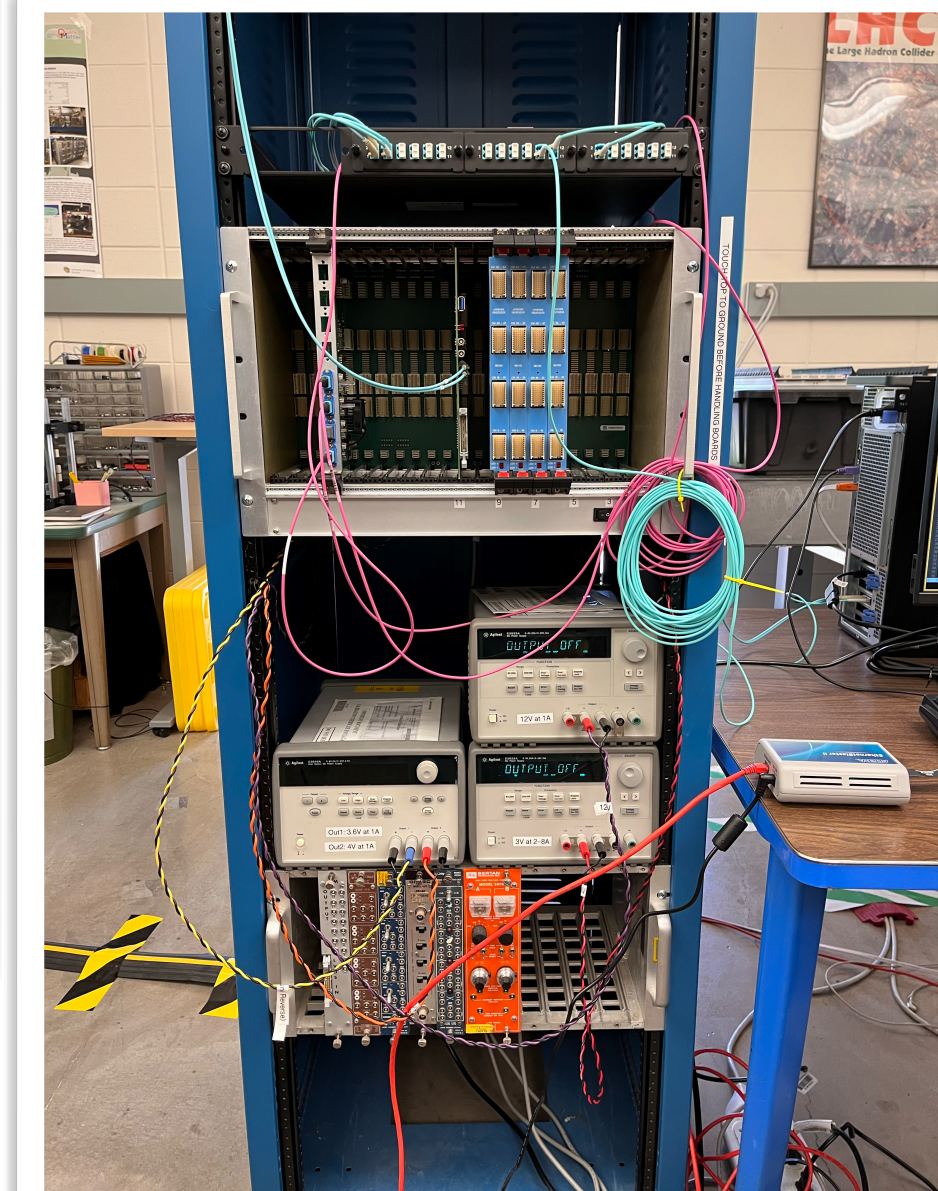
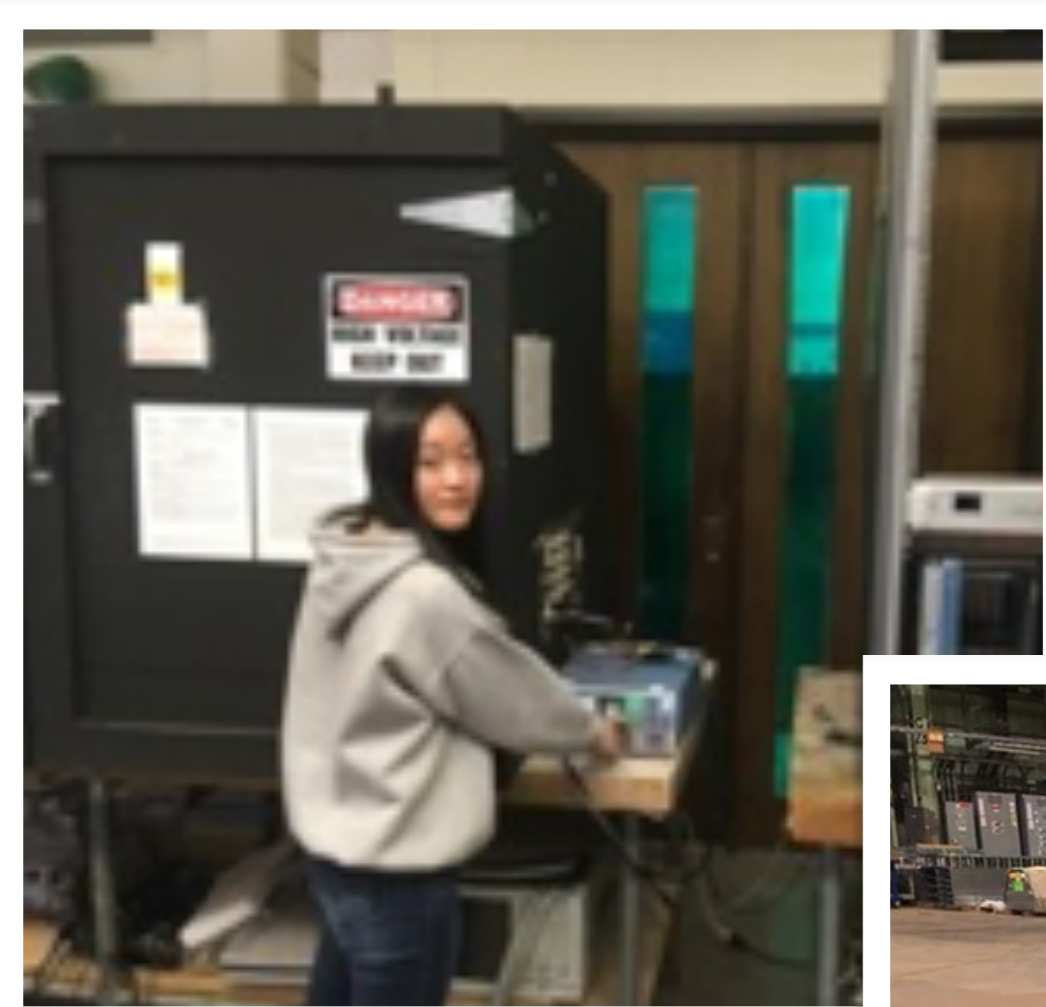


PRC 111 (2025) 044909

- *Post-doc* at the **University of Colorado Boulder** (2020-2023)

- **sPHENIX** experiment

- calorimeter assembly, sEPD tes
DAQ & trigger development



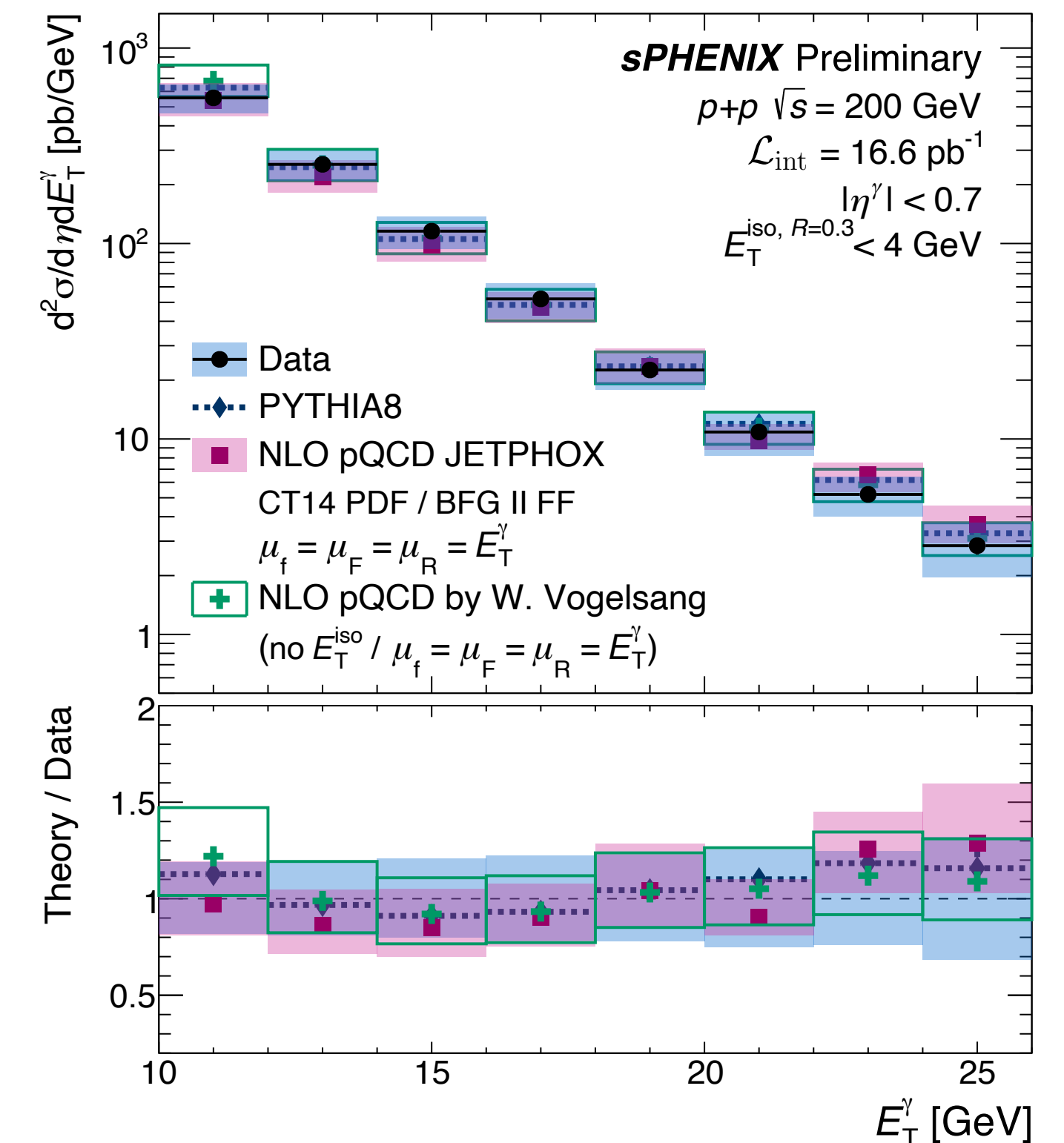
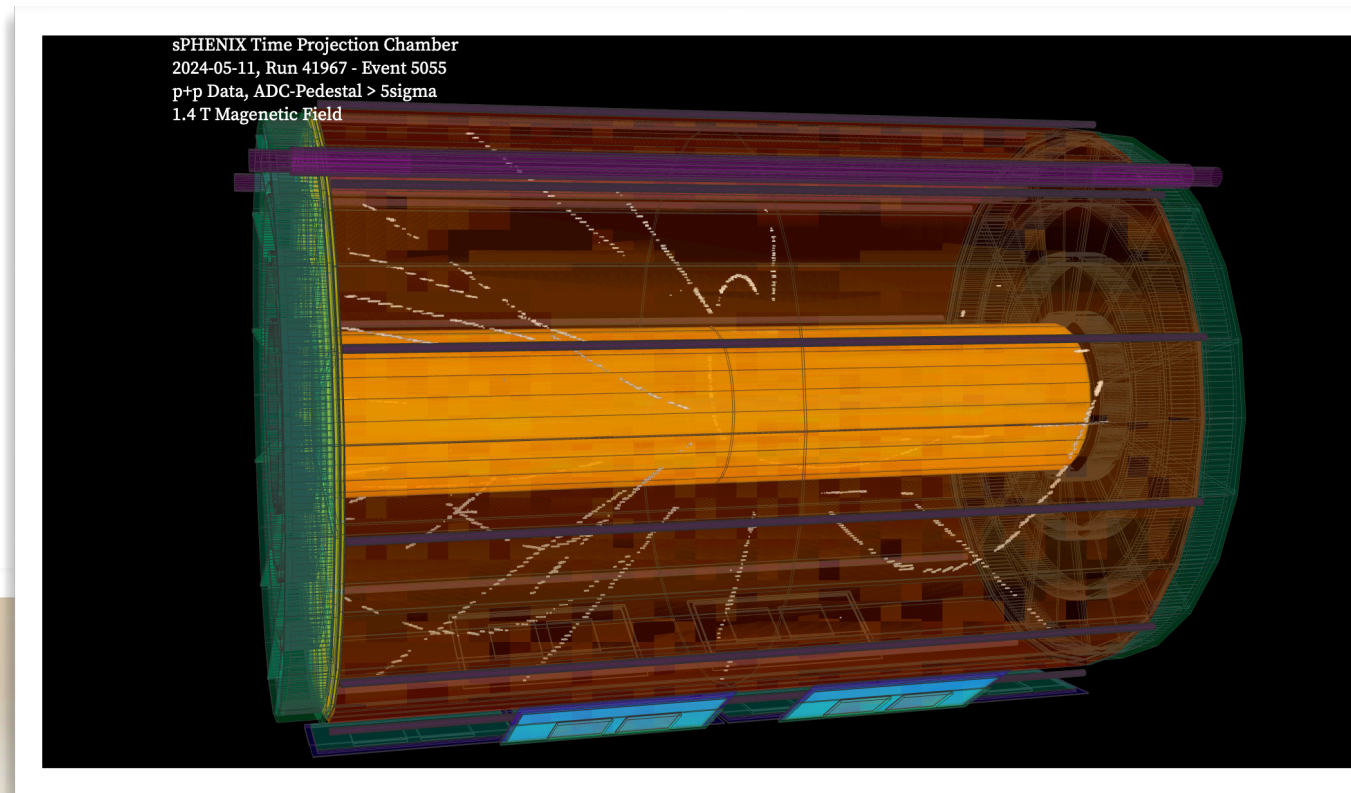
- *Goldhaber Fellow* at the **Brookhaven National Laboratory** (2023-Present)

- ➔ **sPHENIX** experiment

- ➔ data taking, TPC commissioning, jet group co-convenor, photon analysis

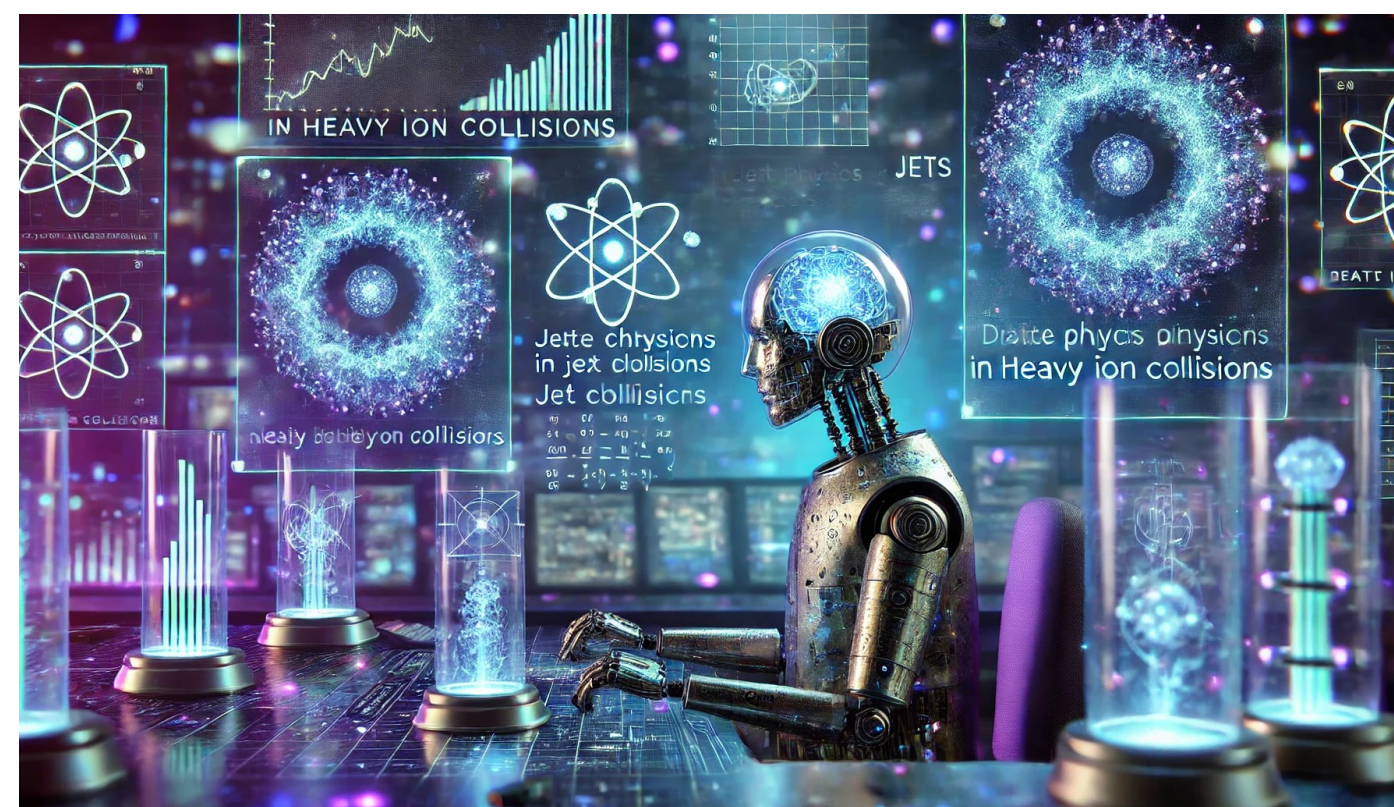


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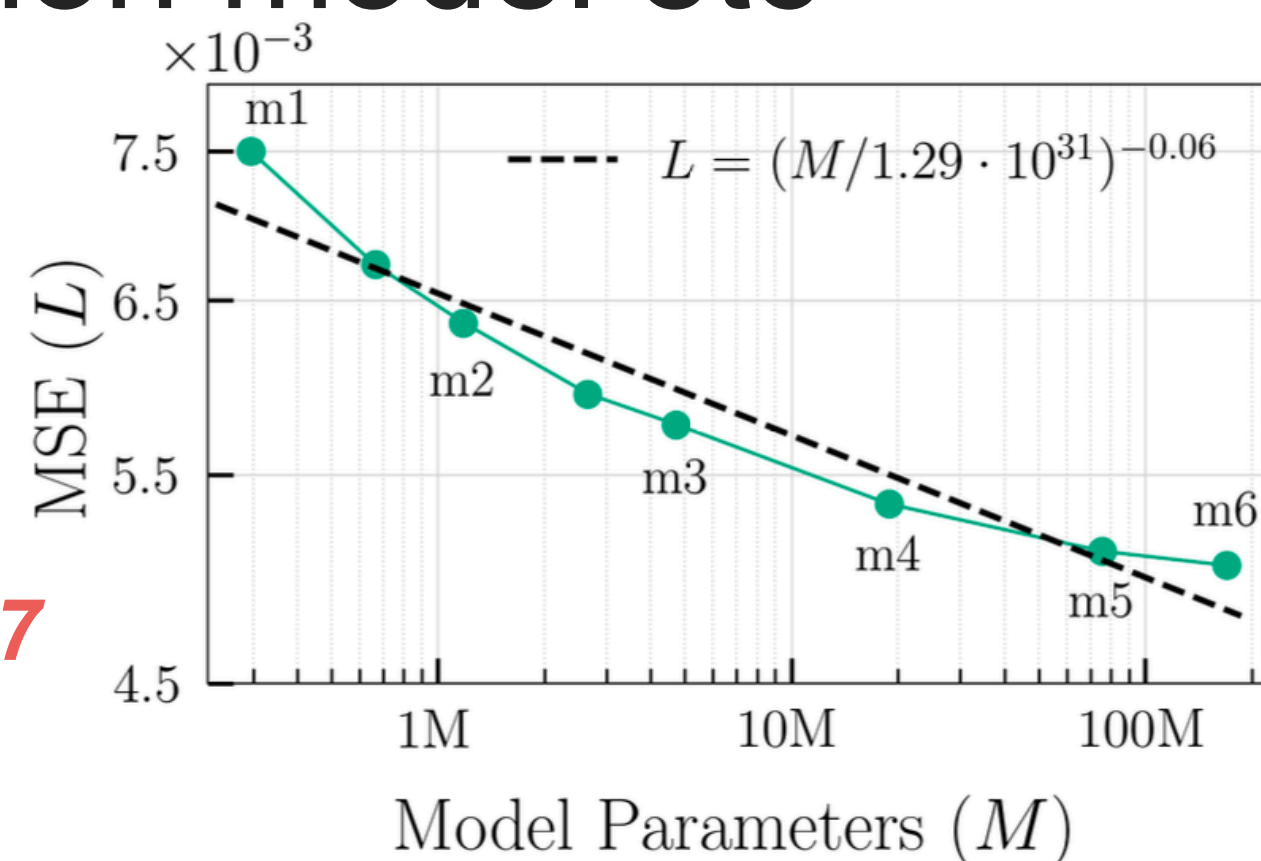


- *Goldhaber Fellow* at the **Brookhaven National Laboratory** (2023-Present)

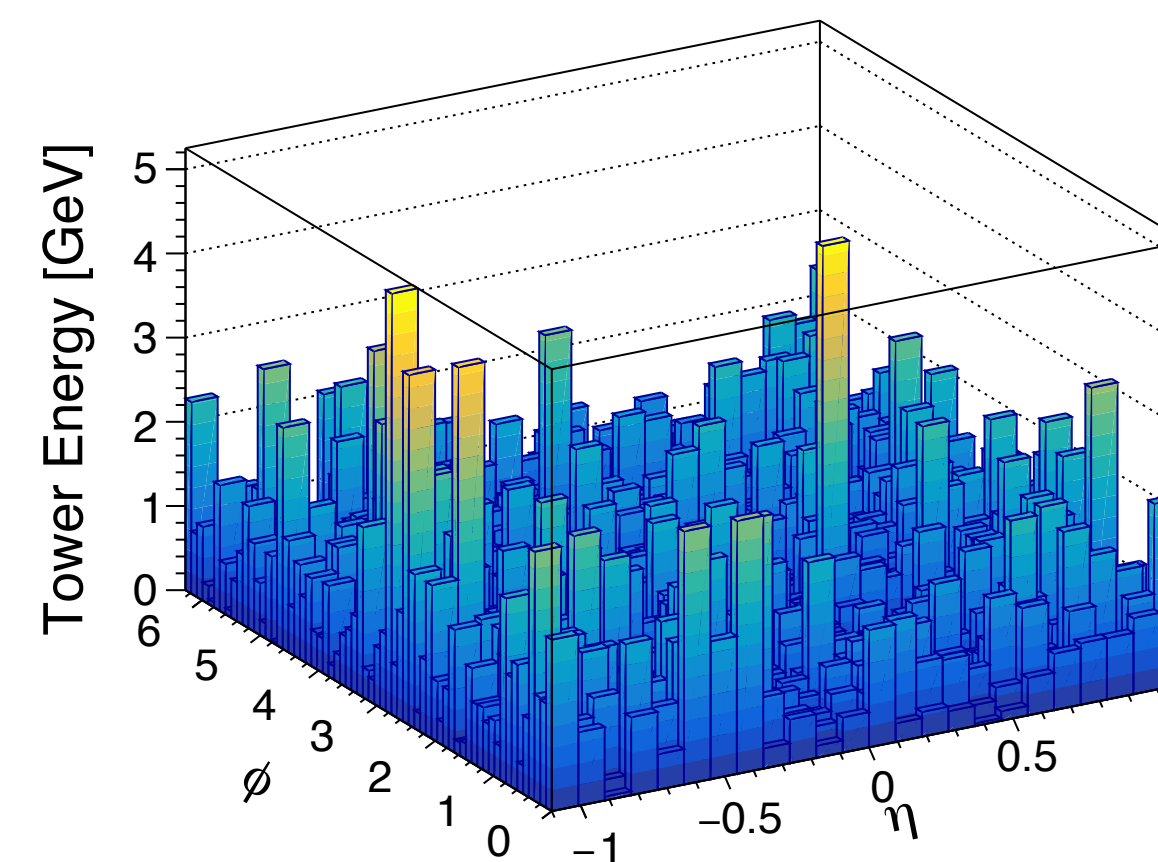
- ➔ **AI/ML application**
- ➔ fast surrogate model, generative AI, data compression model, foundation model etc



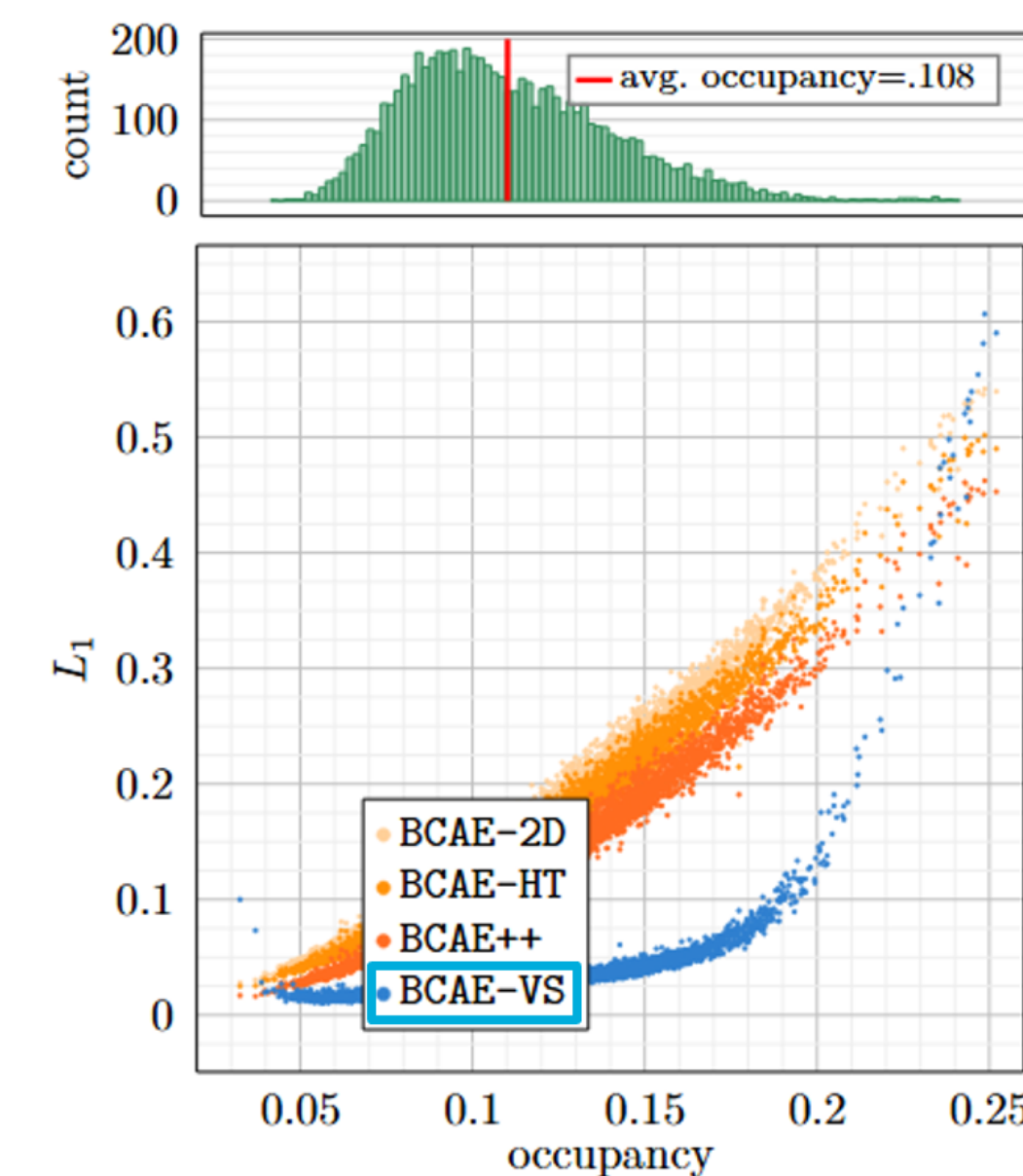
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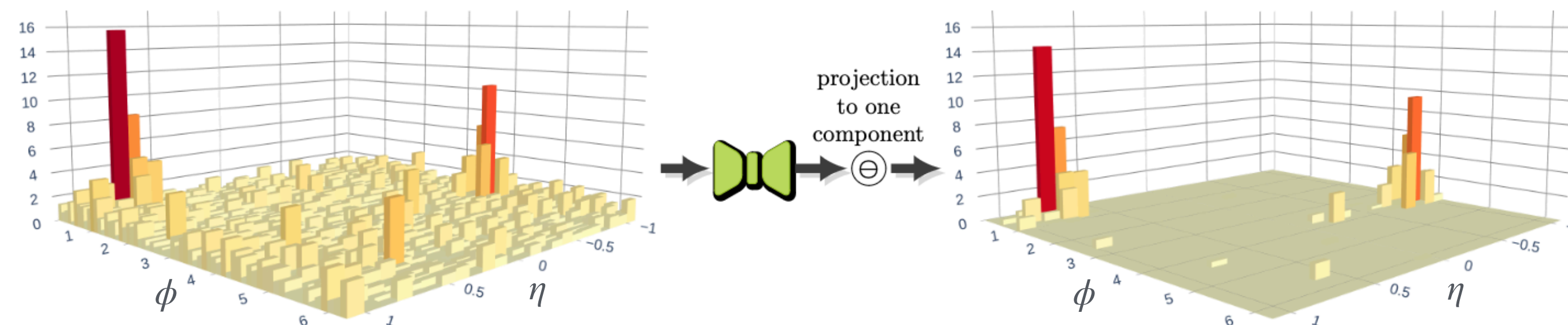
arXiv:2508.14087



PRC 110 (2024) 034912



Patterns, 2026, 101452
arXiv:2411.11942



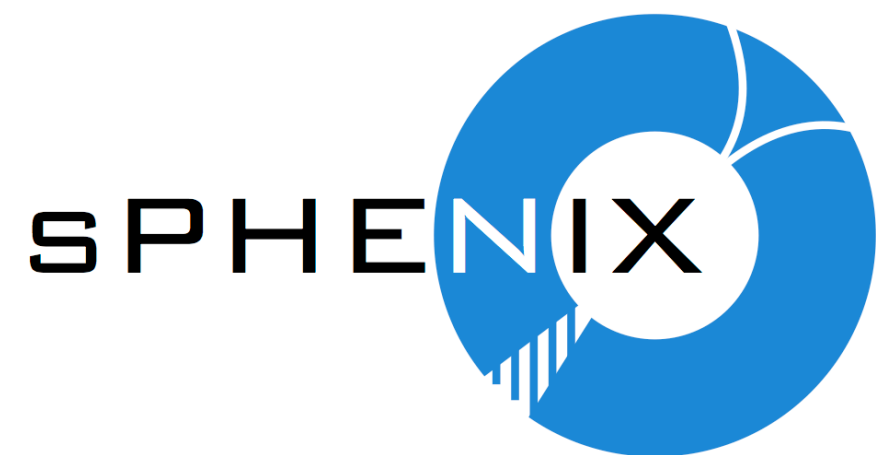
arXiv:2510.23717

- Joining **Stony Brook University** as *Assistant Professor* (2026 Sep.)



Electron-Ion Collider

- *Nucleon/Nuclear Structure*
- *Detector instrumentation*



AI/ML in Physics

- *Foundation model*
- *Streaming data distillation*
- *End-to-end physics inference*

Hot QCD Physics

- *Study of QGP w/ sPHENIX and ATLAS*



**Stony Brook
University**