

A mini introduction

Ejiro Umaka
NPPS Group Meeting
06/11/25

Born in Nigeria
Favorite course was English composition pre-HS
Relocated to Sugar Land, TX in teenage years
Likes: music, walks, movies, sightseeing, reading, writing, scientific engagement

Where it started

University of Houston — Houston, TX

B.S in Biology, minor in Psychology and ~ Math

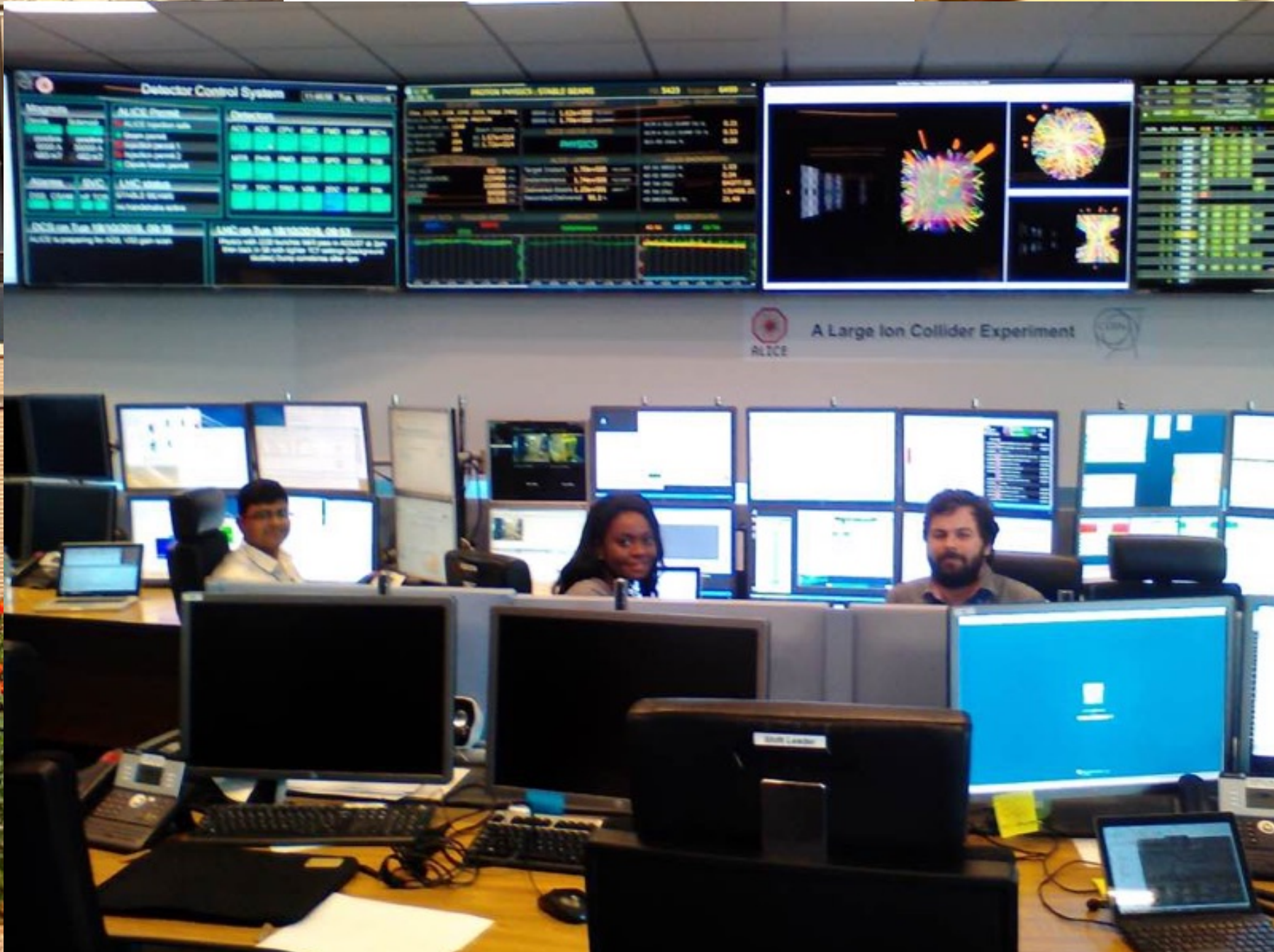
B.S. and M.S. in Physics

Ph.D. in Physics— thesis topic: *QCD crossover temperature with the ALICE detector* (May 2020)

Event-by-Event Net- Δ Fluctuation
in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$
TeV in ALICE at the LHC

Ejiro Umaka
PhD Dissertation Defense

University of Houston
PhD Advisor: Dr Rene Bellwied
April 29, 2020



ALICE Detector — near Geneva, Switzerland (2018)

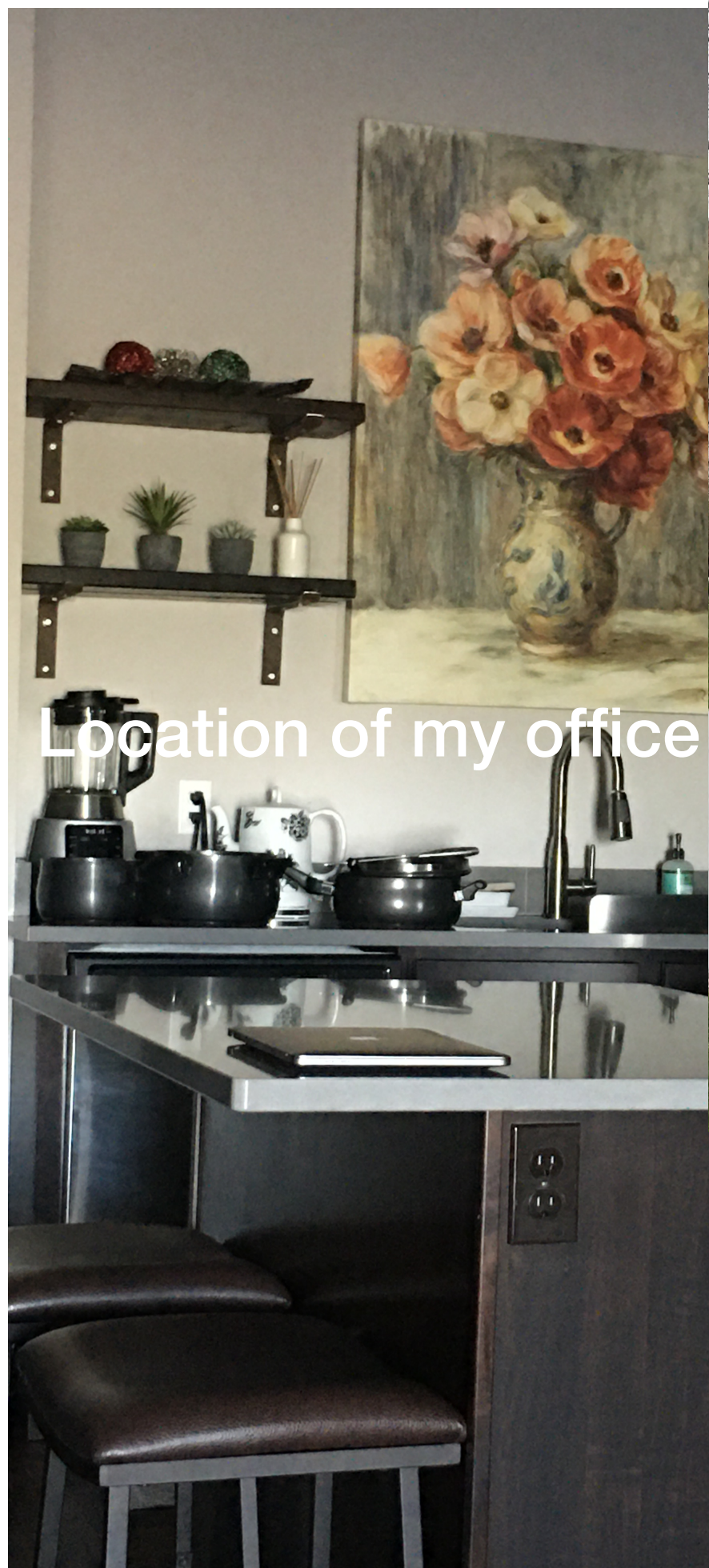
Just finished working on the ALICE TPC (for the day)



First exploration outside Houston

PostDoc at ISU (Ames, IA), in John Lajoie's group June 2020 - June 2021

- I went into campus only twice in the entirety of my stay in Ames. This was during the pandemic lockdown period
- Worked on jet physics in ATLAS
- Completed many software and simulation projects in sPHENIX for the hadronic calorimeters and event plane detector
- Moved to BNL with the same employer in 2021



JER for 2018 low μ 13 TeV pp data

Ejiro Umaka

Iowa State University

ID	Jobset	Task name	Task status	Input files	Started
Parent		TaskType/ProcessingType Campaign Group User	Nfiles	finish% fail% Nfinish Nfail	
27153553	285	user.eumaka.DijetTree_data17_00341649_20211027_0358/ anal/panda-client-1.4.88-jedi-run Ejiro Naomi Umaka	done 87	100.0% 87	2021-10-27 03:18:01
27153549	281	user.eumaka.DijetTree_data17_00341615_20211027_0358/ anal/panda-client-1.4.88-jedi-run Ejiro Naomi Umaka	running 997	35.31% 352	2021-10-27 03:06:11
27153546	279	user.eumaka.DijetTree_data17_00341534_20211027_0358/ anal/panda-client-1.4.88-jedi-run Ejiro Naomi Umaka	running 777	85.2% 662	2021-10-27 02:53:38
27153545	277	user.eumaka.DijetTree_data17_00341419_20211027_0358/ anal/panda-client-1.4.88-jedi-run Ejiro Naomi Umaka	running 301	27.24% 82	2021-10-27 02:40:18
27153543	275	user.eumaka.DijetTree_data17_00341312_20211027_0358/ anal/panda-client-1.4.88-jedi-run Ejiro Naomi Umaka	done 154	100.0% 154	2021-10-27 02:25:12
27153524	273	user.eumaka.DijetTree_data17_00341294_20211027_0358/ anal/panda-client-1.4.88-jedi-run Ejiro Naomi Umaka	done 17	100.0% 17	2021-10-27 02:11:11

The move to BNL

PostDoc at ISU (Ames, IA), in John Lajoie's group
June 2021 - May 2022

sPHENIX Status Report

Ejiro Umaka
on behalf of sPHENIX Collaboration

RHIC & AGS Annual Users' Meeting 2021

Virtual, June 8-11, 2021

John Guy Lajoie 13:03
NICE TALK EJIRO!



... and apparently Slack doesn't do
animated GIFs....



Simulation of sPHENIX EPD performance:
Event Plane & Centrality Performance
Ejiro Umaka (ISU) | sEPD Meeting | August 16, 2021



- Stationed at BNL as of June 2021
- Worked on sPHENIX HCAL tile assembly
- Jet studies in simulation incorporating event plane with forward detectors (FEMC, then sEPD). MRI submitted for sEPD, then funded.
- Employed by BNL in May 2022 to work full-time on sPHENIX

The last three years at BNL

Research Associate at BNL

June 2022 - present (in sPHENIX group)

June 2025 - present (in NPPS group)

Activities in sPHENIX (June 2022 - May 2025)

Reconstruction and calibration software development

Offline software lead for the ZDC & sEPD

sPHENIX detector commissioning

Zero Degree Calorimeter expert

Event Displays development for sPHENIX (with Dmitry A.)

Run webpage development

Guided tours at sPHENIX

sPHENIX Juniors' Representative (2022-2024)

Publication board and By-laws committee member

Several data-taking owl shifts as shift leader

Science outreach— research SLAMs etc.

June 2025 to present

ePIC streaming workflow testbed

Measurement of jet UE fluctuations in sPHENIX

Jet v2 feasibility studies with run 2024 data

Event plane reconstruction in sPHENIX

