



# Results from the BNL-MSI PREP-NPT\*

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\*A DOE Nuclear Physics Traineeship Program



# BNL PREP-NPT

**Nuclear & Particle Physics Division**

Proposed Detector Locations  
EIC  
BLP  
AGS  
RRPL

**Brookhaven National Laboratory**

**Workforce Development & Science Education**

Preparing the next generation of scientists, engineers, technicians, and teachers utilizing the unique scientific tools and intellectual resources of Brookhaven National Laboratory

**United States**

San Francisco  
Chicago  
Montreal  
Morgan State University  
Howard University  
Texas Southern University  
Florida A&M University

**Computational Science Center**

NSR XUNDL ENSDF  
NuDat Databases MIRD  
Sigma EXFOR ENDF

Chart of Nuclides  
Atlas of n Resonances  
Nuclear Wallet Cards  
Tools and Publications  
Nuclear Data Sheets  
Networks  
CSEWG USNDP

**National Nuclear Data Center**

**Mexico**

Guadalajara  
Mexico City

**Cuba**

**Dominican Republic**

**University of Puerto Rico, Río...**

**Brookhaven National Laboratory**

**Willie Rockward**

**Marcus Alfred**

**Carol Scarlett**

**Mark Harvery**

**Palai Ratnakar**



# Program Results for the Fellows from Year 1



**Ambar Rodriguez Alicea** · 1st  
Undergraduate Researcher en Brookhaven National Labor...  
2w · 🌐

This was my last summer as an intern from [Brookhaven National Laboratory](#) in the Nuclear Physics Traineeship, and now I start a new chapter in my career.

It has been an exciting year of exponential professional growth. I cannot begin to express the amount of gratitude I feel for having the opportunity I did. I met incredible people, lived most unique experiences, learned and grew confidence in myself.

Thank you for being part of this, [Luca Cultrera](#), [Noel Blackburn](#), [Abhay Deshpande](#), [Mickey Chiu](#), [Kurt Kennedy](#), [Allen Pierre-Louis](#), [Manuel A. Lozano-Arroyo](#), [Rosemary Cortes](#), and everyone else!



- Inaugurated in Summer '21 as a 2 year pilot
- 5 fellows have graduated from program

Going to Graduate School	Graduate Program	BNL Mentor
Bryinna Moran	Stony Brook MS Physics	Abhay Deshpande
Allen Pierre-Louis	Stony Brook MS Physics	Abhay Deshpande
Ambar Rodriguez	Michigan St PhD Physics	Luca Cultrera
Rosemary Cortes	Univ of Puerto Rico MS Physics	Luis Betancourt
Marcus McLaurin	Morgan St MS Math	Matteo Vorabbi

- 7 fellows currently in program for 2<sup>nd</sup> and final(?) year
- 5 talks/posters presented at conferences last year, 4 more to be presented at APS DNP CEU and NSBP
- 2 papers submitted for publication, at least 2 more expected in the coming year

# Conclusion

- **There's a lot of excitement and support for this program from BNL and our partner universities**
  - It fills a crucial missing link in the pipeline
  - We believe ability to keep students intellectually involved in the research through the semester is key to maintaining their interest
  - Provides opportunities for exposure to NP research to MSI's, and a partnership, where it was completely missing
  - Strong relationship with SBU, CFNS and the Edward Bouchet Initiative
  - Program started as a *2-year Pilot* in the DOE ONP, transitioning to RENEW-NP program
- **Our primary evaluation metric is how many of these Student Fellows go on to graduate school in physics, particularly NP, or to other STEM positions**
  - So far this has been wildly successful – 5 out of 5 have gone on to grad school
  - Another 7 students in the pipeline
  - We will continue to evaluate how well they do and how we can improve the program
- ***Important to express community support for these initiatives***
  - A recommendation to “Invest in NP educational programs AND NP infrastructure at undergraduate+ graduate levels at MSIs” would greatly strengthen the future workforce in NP research
  - Expression of community support will bolster current initiatives in ONP to solve long-standing problems in reaching the largest possible population to draw scientific talent from