



FLORIDA STATE  
UNIVERSITY



# Broader Impacts 1

Paul Cottle

NSF Site Visit, John D. Fox Laboratory, Florida State University

# Fox Laboratory Code of Conduct



## John D. Fox Laboratory Code of Conduct

Users, visitors, students, and employees at the Fox Laboratory share a common interest—to contribute to society through education and scientific discovery. This venture is best conducted when everyone behaves in a welcoming and respectful manner. Creating a collegial, inclusive, safe, and supportive environment is everyone's responsibility. Harassment and discrimination are prohibited and the Fox Laboratory is committed to providing an environment that is welcoming for everyone. Anyone who witnesses a breach of this code of conduct is strongly encouraged to notify one of the following individuals.

**Fox Laboratory Director:** Professor Ingo Wiedenhoever

**Fox Laboratory Points of Contact for Student Concerns:** Professor Vandana Tripathi and Professor Sergio Almaraz-Calderon

**Physics Department Point of Contact Advocate for Student Concerns:** Professor Susan Blessing

The consequences for breaching this code of conduct will be decided by either the laboratory faculty or the department administration on a case-by-case basis.



# Ten New Ph.D. Graduates Since 2020

**Benjamin Asher (2021, Almaraz-Calderon, Pacific Northwest National Lab)**

**Caleb Benetti (2023, Tabor, FRIB postdoc)**

**Nathan Gerken (2021, Almaraz-Calderon, PlatinumEdge Solutions)**

**Kenneth Hanselman (2022, Wiedenhöver, LANL postdoc)**

**Eilens Lopez-Saavedra (2023, Almaraz-Calderon, ANL postdoc)**

**Gordon McCann (2023, Wiedenhöver, FRIB postdoc)**

**Ashton Morelock (2023, Almaraz-Calderon, UTK postdoc)**

**Jesus Perello (2021, Almaraz-Calderon, Bridge Program, LANL postdoc)**

**Elizabeth Rubino (2020, Tabor, LLNL staff scientist)**

**Eli Temanson (2023, Wiedenhöver, CEA-Saclay postdoc)**





# Fox Laboratory Ph.D. Graduate Jesus Perello

## APSNews

March 2023 (Volume 32, Number 3)

### Now a Nuclear Physicist at Los Alamos, APS Bridge Program Grad Says Nuclear Security is His Calling

"[My mom] was my savior," says Jesus Perello. "She said, 'Listen, you did not go this far just to quit.'"

By Liz Boatman | February 16, 2023



Credit: Jesus Perello

Jesus Perello, who earned his doctorate in physics from Florida State University in 2021, is now a physicist at Los Alamos National Lab.

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[How Do You Study Quantum Materials That Don't Yet Exist? Ask AI.](#)

[Wikipedia Has a Problem That Physicists Can Help Solve](#)

[Now a Nuclear Physicist at Los Alamos, APS](#)

# Fox Laboratory Ph.D. Graduates → FRIB postdocs



From left: Rebecca Lubna, Samuel Ajayi (still at FSU), Caleb Benetti and Gordon McCann

- 18 FSU undergraduates during present grant period (four now in Ph.D. programs in physics)
- REU program with Ursinus and Davidson Colleges during present grant period (we are not requesting continuation of this program)
- Efforts to recruit students from FSU's Women in Math, Science and Engineering (WIMSE) living-learning center
- Four papers published in Physical Review C from these undergraduate research efforts, with one more submitted

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PHYSICAL REVIEW C **109**, 024302 (2024)

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**Measurement of  $g_{9/2}$  strength in the stretched  $8^-$  state and other negative parity states via the  $^{51}\text{V}(d, p)^{52}\text{V}$  reaction**

I. C. S. Hay<sup>1</sup>, P. D. Cottle<sup>1</sup>, L. A. Riley<sup>2</sup>, L. T. Baby<sup>1</sup>, S. Baker<sup>1</sup>, A. L. Conley<sup>1</sup>, J. Esparza<sup>1</sup>, K. Hanselman<sup>1</sup>, M. Heinze<sup>2</sup>, D. Houlihan<sup>1</sup>, B. Kelly<sup>1</sup>, K. W. Kemper<sup>1</sup>, G. W. McCann<sup>1</sup>, R. Renom<sup>1</sup>, A. Sandrik<sup>1</sup>, D. Simms<sup>2</sup>, M. Spieker<sup>1</sup> and I. Wiedenhöver<sup>1</sup>

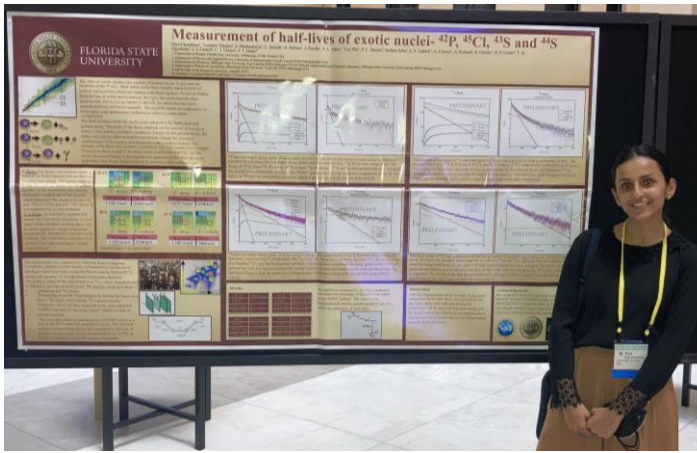
<sup>1</sup>Department of Physics, Florida State University, Tallahassee, Florida 32306, USA

<sup>2</sup>Department of Physics and Astronomy, Ursinus College, Collegeville, Pennsylvania 19426, USA

 (Received 26 September 2023; accepted 5 January 2024; published 5 February 2024)





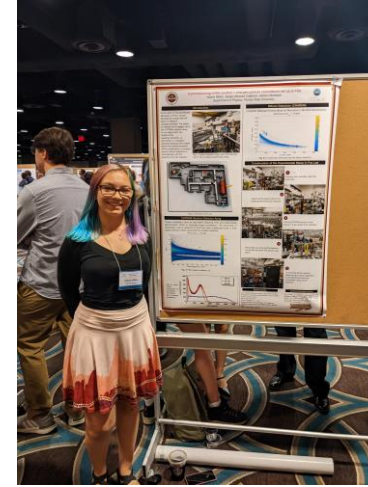


Diya Choudhary, FSU Physics 2024



REU 2022:  
Davidson Prof  
Anthony  
Kuchera  
and students  
Olivia  
Guarinello  
and Garrett  
Ryan

## Undergraduate Research



Valarie Milton  
(FSU Physics  
2023). Now a  
physics grad  
student at LSU.



Ian Hay (FSU  
Physics 2023).  
Now an FSU  
Physics grad  
Student.

# Pre-College Activities: Future Physicists of Florida



Broader Impacts

Program to recognize middle school students in the Florida Panhandle's Bay County with interest in STEM and to expose them to career opportunities







# Pre-College Activities: Orange County Public Schools Calculus Project

The Calculus Project aims to broaden the population of students taking accelerated math in the nation's 8<sup>th</sup> largest school district

- Online presentations to Calculus Project parents about high school courses needed to best prepare for college STEM majors in 2021, 2022 and 2023 (about 400 parents per year)
- Presentation to 1,100 Calculus Project students in the summer of 2023 in collaboration with FAMU-FSU College of Engineering staff and students

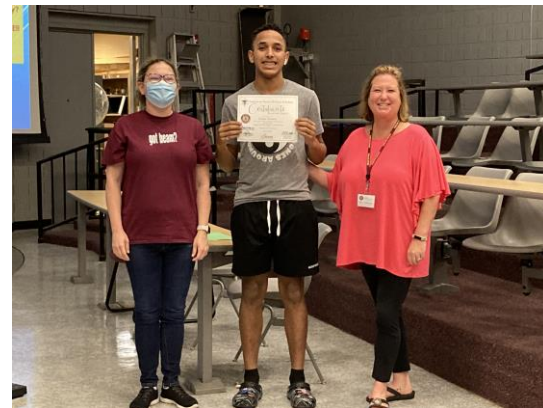


# Pre-College Activities: Nuclear Medicine and Science Camp (Funded by CENTAUR)



Collaboration with K-12 teachers and public schools to give 20 middle school students an intense week of exposure to nuclear science.

First held in 2018, the one-week nuclear camp will be held this summer at Bay County's rural PreK-12 Deane Bozeman School.





# Public Outreach: FSU's Flying Circus of Physics!



A public event held once every two years (except when interrupted by the pandemic).

The 2023 Circus attracted more than 1,000 people.

Sergio co-chaired the event.



# Public Outreach: Tampa Bay's Fox TV Affiliate Visits



The host and producer of a science series on Fox 13 Tampa Bay visited on February 6 to prepare a segment on the Fox Laboratory and its collaboration with the Mayo Clinic in Jacksonville. The show's host, Craig Patrick, has won 20 Emmys.





# Service to the Nuclear Science Community



## Spieker

- NSF Experimental Nuclear Physics panel
- Invited talk for LRP town hall on Nuclear Structure, Reactions and Astrophysics
- Working group convener for 2023 LECM, invited speaker for 2021 LECM
- GRETA/GRETINA Users Executive Committee
- External reviewer for GRETA's Director's Status Review (LBNL) x 2
- Nuclear Physics Midterm Plan Committee Working Group, Legnaro
- Lead Organizer, COMEX 8 (in December 2025 at FSU)

## Tripathi

- DEIB Working Group, LRP town hall on Nuclear Structure, Reactions and Astrophysics
- FRIB Users Executive Committee



# Service to the Nuclear Science Community



## Almaraz-Calderon

- NSF Experimental Nuclear Physics panel
- ATLAS Users Executive Committee
- Co-chair, 2021 Meeting of the Southeastern Section of the APS (held at FSU)

## Wiedenhöver

- 2023 Committee of Visitors at the National Science Foundation
- Member of the TRIUMF Experimental Evaluation Committee (2015-2022)
- Co-Chair of the Sub-Atomic Physics Evaluation Section for the Natural Sciences and Engineering Research Council of Canada (NSERC) in 2022 and 2023
- Chair of the Board for the FRIB Experimental Faculty Bridge Program
- Member, Physical Review C Editorial Board
- Editor, ARUNA White Paper submitted to the LRP Town Hall Meeting on Nuclear Structure, Reactions and Astrophysics

## Cottle

- Education Working Group for the November 2022 Town Hall Meeting on Nuclear Structure, Reactions and Astrophysics.
- DNP Education Committee, 2021-2023

