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## Appointments

Since 2020	<b>Associate Professor</b> Illinois Institute of Technology
2014-2020	<b>Assistant Professor</b> Illinois Institute of Technology
2012-2014	<b>Postdoctoral Fellow</b> University of Cincinnati
2006-2012	<b>Research Assistant</b> University of Wisconsin - Madison

## Education

May 2012	<b>Ph.D. in Physics</b> <i>"Observation of Antineutrino Disappearance at Daya Bay"</i> University of Wisconsin, Madison Advisor: Karsten M. Heeger
June 2006	<b>Bachelor of Science (B.S.) in Physics</b> Principia College, Elsah, Illinois, USA

## Research and Scientific Collaborations

Since 2007	<b>Daya Bay</b> (Reactor Antineutrino $\theta_{13}$ Experiment) <ul style="list-style-type: none"><li>- Co-Leader, absolute reactor antineutrino flux measurement</li><li>- Leader and Editor, antineutrino flux evolution analysis and paper</li></ul>
Since 2012	<b>MicroBooNE</b> (Detect Fermilab neutrino beam with liquid argon TPC) <ul style="list-style-type: none"><li>- 2013-2016: Convener, Oscillations Working Group</li><li>- 2013-2015: Level 3 Project Manager, Electronics Infrastructure</li></ul>
Since 2012	<b>PROSPECT</b> (ORNL-based reactor antineutrino experiment at HFIR) <ul style="list-style-type: none"><li>- 2016-Present: IIT Group convenes Oscillation Physics Group</li><li>- 2016-Present: Speaker and Talks Coordinator</li></ul>
Since 2015	<b>SBND</b> (Detect Fermilab neutrino beam with liquid argon TPC) <ul style="list-style-type: none"><li>- Leading production and installation of cosmic ray tagging sub-system and optical reflector sub-system</li></ul>
Since 2016	<b>DUNE</b> (Long-baseline neutrino measurement with liquid argon TPC) <ul style="list-style-type: none"><li>- Collaborator, Photon Detection Consortium</li></ul>

## Awards, Honors, and Fellowships

2019	<b>IIT Excellence in Teaching Award, College of Science</b> <a href="https://today.iit.edu/?p=93170">https://today.iit.edu/?p=93170</a>
2018	<b>IIT College of Science Dean's Award for Junior Research</b> <a href="https://science.iit.edu/people/college-science-deans-award-winners">https://science.iit.edu/people/college-science-deans-award-winners</a>
2015	<b>Laureate, Breakthrough Prize in Fundamental Physics</b> For contributions to Daya Bay's first measurement of $\theta_{13}$ <a href="https://breakthroughprize.org/Laureates/1/L153">https://breakthroughprize.org/Laureates/1/L153</a>
2008	<b>NSF East Asia and Pacific Summer Institute (EAPSI) Fellowship</b> Institute of High Energy Physics, Beijing, China <a href="http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5284">http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5284</a>
2005	<b>Summer Undergraduate Laboratory Internship (SULI) Selectee</b> Stanford Linear Accelerator Center, Menlo Park, CA, USA <a href="https://inspirehep.net/literature/701712">https://inspirehep.net/literature/701712</a>

## Synergistic Activities

2020-2023	<b>Topical Group Convener</b> , Snowmass 2021 Community Planning Exercise
2019, 2023	<b>Instructor</b> , 2019 International Neutrino Summer School, Batavia IL USA
2016-present	<b>Review Panels</b> DOE-HEP Comparative Review (2023) NSF Particle Astrophysics – Underground Physics (2022) DOE-HEP Instrumentation Traineeship (2021) DOE-HEP Early Career Research Program (2019, 2020, 2022) DOE-SC Graduate Student Research Program (SCGSR) (2018) Established Program to Stimulated Competitive Research (EPSCoR) (2016)
2012-present	<b>Conference/Workshop Organizing Committees</b>
2021	Nuclear Data for Reactor Antineutrino Measurements (WoNDRAM)
2020	Workshop on Low-Energy Physics in Liquid Argon (LEPLAr 2020, virtual)
2020	Snowmass 2020 NF02 Sterile Neutrino Oscillation Workshop (virtual)
2020	PROSPECT Oscillation Workshop (virtual)
2018	PROSPECT Collaboration Meeting, IIT Campus
2014-2016	ICHEP 2016 (International Conference on High Energy Physics)
2014-2015	MicroBooNE Collaboration Workshop, IIT Campus
2012	NNN 2012 (Next-Generation Nucleon Decay and Neutrino Detectors)
2015-present	<b>Peer Reviewer</b> Physical Review Letters; Physical Review D; Journal of Physics G; European Physical Journal C
2015-present	<b>Quoted</b> in articles for newspapers and periodicals, including Science, Newsweek, Gizmodo, Inverse, Physics, Wired, Symmetry, WTTW, and others.
2014-2015	<b>Sterile Working Group Co-Convener</b> , INP 2015 Community Organizing Exercise (Intermediate Neutrino Program)

## IIT University Service Activities

### Physics Department Committees

2016-present	Chair, Colloquium Committee
2015-present	Graduate Admissions Committee (Chair since 2022)
2015-present	Member, Social Media Committee

### Physics Hiring Committees

2022-2023	Tenure Track Physics Faculty, Member
2021-2022	Health Physics Masters Program Director, Member
2020-2021	Senior Lecturer, Member
2019-2020	Tenure Track Physics Faculty, Member

### IIT Campus Committees

2017-present	Radiation Safety Committee
2019-2019	University Research Council
2016	Alumni Event Participant - Hosted alumni event at Fermilab for tour and discussion
2015-present	Camras Scholar Candidate Interviewer

## Colloquia and Seminars

(\* indicates colloquia)

\* 32. *Search for an Excess of Electron Neutrino Interactions In MicroBooNE*  
Colloquium, UW-Madison, February 1, 2022

31. *Search for an Excess of Electron Neutrino Interactions In MicroBooNE*  
PAN Seminar, Wayne State University, January 21, 2022

\* 30. *Search for an Excess of Electron Neutrino Interactions In MicroBooNE*  
Colloquium, Cincinnati University, Virtual Format, December 9, 2021

\* 29. *Applied and Fundamental Physics with Reactor Neutrinos*  
Colloquium, Indiana University, December 1, 2021

\* 28. *Applied and Fundamental Physics with Reactor Neutrinos*  
Colloquium, University of Rochester, Virtual Format, September 1, 2021

\* 27. *Applied and Fundamental Physics with Reactor Neutrinos*  
Colloquium, Boston University, Virtual Format, March 11, 2021

\* 26. *Applied and Fundamental Physics with Reactor Neutrinos*  
Colloquium, Rutgers University, Virtual Format, January 11, 2021

\* 25. *Applied and Fundamental Physics with Reactor Neutrinos*  
Colloquium, South Dakota School of Mines and Technology, Rapid City, SD, USA, October 7, 2020

\* 24. *Applied and Fundamental Physics with Reactor Neutrinos*  
Colloquium, Lewis University, Romeoville, IL, USA, February 7, 2020

\* 23. *Applied and Fundamental Physics with Reactor Neutrinos*  
Colloquium, Illinois Institute of Technology, Chicago, IL, USA, September 12, 2019

22. *Recent Reactor Antineutrino Results from the PROSPECT Experiment*  
Neutrino Division Seminar, Fermilab, Batavia IL USA, April 11, 2019

21. *Recent Reactor Antineutrino Flux and Spectrum Measurements*  
Physics Division Seminar, Oak Ridge National Laboratory, Oak Ridge, TN USA, September 28, 2017

20. *Evolution of the Reactor Antineutrino Flux and Spectrum at Daya Bay*  
P-25 Physics Seminar, Los Alamos National Laboratory, Los Alamos, NM USA, May 31, 2017

19. *Recent Reactor Antineutrino Flux and Spectrum Measurements*  
Particle Physics Seminar, University of Texas, Arlington, TX USA, April 12, 2017

18. *Precision Reactor Neutrino Spectrum Measurements: Recent Results and PROSPECTs*  
Particle Physics Seminar, Michigan State University, East Lansing, MI, USA, April 18, 2016

17. *Precision Reactor Neutrino Spectrum Measurements: Recent Results and PROSPECTs*  
HEP Lunch Seminar, Argonne National Laboratory, Lemont, IL, USA, March 8, 2016

\* 16. *From MeV to GeV: Capturing New Physics With Liquid Argon TPCs*  
Colloquium, Illinois Institute of Technology, Chicago, IL, USA, February 18, 2016

15. *Precision Reactor Neutrino Spectrum Measurements: Recent Results and PROSPECTs*  
Seminar, Notre Dame University, South Bend, IN, USA, November 3, 2015

\* 14. *Probing Mysteries in Particle Physics with Neutrino Oscillations*  
Physics Division Colloquium, Argonne National Laboratory, Lemont, IL, USA, September 25, 2015

13. *Anomalous Reactor Antineutrino Flux and Spectrum Measurements*  
NPAC Seminar, University of Wisconsin-Madison, Madison WI, USA, May 14, 2015

12. *Precision Reactor Nuebar Spectrum Measurements: Recent Results and PROSPECT's*  
Intensity Frontier Seminar, Fermilab, Chicago IL, USA, April 16, 2015

\* 11. *Precision Reactor Nuebar Spectrum Measurements: Recent Results and PROSPECT's*  
HEP Seminar, University of Chicago, Chicago IL, USA, November 25, 2014

10. *Probing Mysteries in Particle Physics with Neutrino Oscillations*  
Colloquium, Illinois Institute of Technology, Chicago IL, USA, February 20, 2014

9. *A Relative Spectral Measurement of Neutrino Oscillation at Daya Bay*  
LPPC Seminar, Harvard University, Cambridge, MA, USA, September 25, 2013

8. *A Relative Spectral Measurement of Neutrino Oscillation at Daya Bay*  
Special Seminar, Massachusetts Institute of Technology, Cambridge, MA, USA, September 24, 2013

7. *A Relative Spectral Measurement of Neutrino Oscillation at Daya Bay*  
Particle Physics Seminar, Northwestern University, Chicago, IL, USA, September 9, 2013

6. *A Relative Spectral Measurement of Neutrino Oscillation at Daya Bay*  
Joint Theory/Experimental Seminar (Wine and Cheese Seminar)  
Fermilab, Batavia, IL, USA, September 6, 2013

\* 5. *Exploring the Standard Model and Beyond with Neutrino Oscillations*  
Colloquium, Marquette University, Milwaukee WI, USA, April 18, 2013

4. *Observation of Electron Antineutrino Disappearance at Daya Bay*  
Special Seminar, Illinois Institute of Technology, Chicago, IL, USA, March 15, 2012

3. *Observation of Electron Antineutrino Disappearance at Daya Bay*  
High Energy Physics Seminar, University of Cincinnati, Cincinnati, OH, USA, March 12, 2012

2. *Toward a Precision Measurement of  $\theta_{13}$  at Daya Bay*  
HEP Lunch Seminar, Argonne National Laboratory, Lamont, IL, USA, January 3, 2012

\* 1. *Neutrinos and Neutrino Oscillations: From Fermi to Daya Bay and Beyond*  
Colloquium, Marquette University, Milwaukee, Wisconsin, USA, April 17, 2009

## Conference and Workshop Presentations

51. *Overview: Neutrino Experimental Anomalies*  
Snowmass Community Summer Study 2022.  
Seattle, Washington, USA; July 21, 2022.

50. *Current State of Low-Energy Neutrino Physics in US-HEP*  
Snowmass Community Summer Study 2022.  
Seattle, Washington, USA; July 18, 2022.

49. *Update on Short-Baseline Neutrino Anomalies*  
International Conference on Neutrinos and Dark Matter 2022 (NDM 2022)  
Asheville, NC, USA; May 16, 2022.

48. *Introduction to Reactor Antineutrino Spectra Per Fission*  
Workshop for Nuclear Data and Reactor Antineutrino Measurements (WoNDRAm) Workshop  
June 26, 2021 (virtual)

47. *Current Status and Future Plans for Better Understanding Reactor Neutrino Emissions*  
Snowmass NF09 Workshop on Artificial Neutrino Sources  
December 4, 2020 (virtual)

46. *How Can Reactor IBD Help With Reactor CEvNS Physics?*  
2020 Magnificent CEvNS Workshop  
November 16, 2020 (virtual)

45. *An Update on Anomalies in Reactor Neutrino Physics*  
APS Prairie Section Annual Meeting (PSAPS 2020)  
November 13, 2020 (virtual)

44. *An Update on Anomalies in Reactor Antineutrino Physics*  
Fall Meeting of the APS Division of Nuclear Physics (DNP 2020)  
October 31, 2020 (virtual)

43. *Future Outlook for Short-Baseline Reactor Oscillation Measurements*  
2020 PROSPECT Workshop on Oscillation Physics  
August 19, 2020 (virtual)

42. *Interaction of CMB Measurements and Terrestrial Neutrino Experiments*  
11<sup>th</sup> CMB-S4 Workshop: Cosmology and Astrophysics in the Next Decade  
August 13, 2020 (virtual)

41. *Recent Reactor Antineutrino Results from the PROSPECT Experiment*  
International Conference on Neutrino Physics and Astrophysics (Neutrino 2020)  
June 20-30, 2020 (virtual)

40. *Nuclear Data Needs for Interpreting Reactor Antineutrino Signals*  
WANDA Nuclear Data Workshop  
Washington DC, USA, March 3-5, 2020

39. *The Physics Potential of Future Short-Baseline Reactor Antineutrino Detectors*  
CPAD Instrumentation Frontier Workshop  
Madison, WI, USA, December 11, 2019

38. *Lithium-Doped PSD-Capable Liquid Scintillator for the PROSPECT Experiment*  
CPAD Instrumentation Frontier Workshop  
Madison, WI, USA, December 9, 2019

37. *Progress on the PROSPECT Experiment*  
Applied Antineutrino Physics Workshop  
Guangzhou, China, December 5, 2019

36. *Overview of Reactor Neutrinos*  
20<sup>th</sup> International Workshop on Next-Generation Nucleon Decay and Neutrino Detectors (NNN 2019)  
Medellin, Colombia, November 8, 2019

35. *Experimental Sterile Neutrino Overview*  
Topics in Cosmic Neutrino Physics Workshop  
Batavia, IL, USA, October 10, 2019

34. *Status Update on Short-Baseline Neutrino Oscillation Experiments*  
International Symposium on Lepton Photon Interactions at High Energies (Lepton-Photon 2019)  
Toronto, Canada, August 10, 2019

33. *Recent Reactor Antineutrino Flux and Spectrum Measurements at Short-Baseline Experiments*  
27th International Conference on Supersymmetry (SUSY 2019)  
Corpus Christi, TX, USA, May 22, 2019

32. *Reactor Antineutrino Flux Measurements at Daya Bay*  
IAEA Technical Meeting on Nuclear Data for Antineutrino Spectra and their Applications  
Vienna, Austria, April 23, 2019

31. *Recent Reactor Antineutrino Flux and Spectrum Measurements: Developments and Issues*  
Michigan Neutrino Symposium  
Ann Arbor, MI, USA, April 2, 2019

30. *Recent Reactor Antineutrino Flux and Spectrum Measurements: Developments and Issues*  
NuPhys 2019  
London, UK, December 20, 2018

29. *Searching for Sterile Neutrinos with PROSPECT* (poster)  
Neutrino 2018  
Heidelberg, Germany, June 4, 2017

28. *The PROSPECT Reactor Antineutrino Experiment*  
ESCAPE Reactor Antineutrino Energy Calibration Workshop  
Heidelberg, Germany, June 1, 2018

27. *PROSPECT: A Precision Reactor Oscillation and Spectrum Experiment*  
Recontres du Vietnam  
Quy Nhon, Vietnam, July 21, 2017

26. *Evolution of the Reactor Antineutrino Flux and Spectrum at Daya Bay*  
IceCube Particle Astrophysics Workshop  
Madison, WI, USA, May 8, 2017

25. *Background Mitigation in the PROSPECT Experiment* (poster)  
International Conference on High Energy Physics (ICHEP)  
Chicago, IL, USA, August 6, 2016

24. *Recent Reactor Antineutrino Spectrum Measurements*  
Neutrinos in Nuclear Physics Workshop  
Knoxville, TN, USA, July 30, 2016

23. *Searching For Sterile Neutrinos With PROSPECT* (poster)  
Neutrino 2016  
London, UK, July 6, 2016

22. *MicroBooNE: Experience Gained and Future Scenarios*  
PITT PACC Short Baseline Workshop  
Pittsburgh, PA, USA, January 27, 2016

21. *Precision Reactor Antineutrino Spectrum Measurements: An Update*  
PITT PACC Short Baseline Workshop  
Pittsburgh, PA, USA, January 26, 2016

20. *Sterile Neutrino Searches*  
Neutrino Factories 2015 Conference (NuFact15)  
Rio de Janeiro, Brazil, August 13, 2015

19. *PROSPECTs for Short-Baseline Oscillation Searches at Reactors*  
Conference on the Intersections of Particle And Nuclear Physics (CIPANP 2015)  
Vail, CO, USA, May 18, 2015
18. *Sterile Neutrino Working Group Summary*  
Workshop for the Intermediate Neutrino Program  
Brookhaven, NY, USA, February 6, 2015
17. *Precision Reactor Antineutrino Spectrum Predictions and Measurements*  
Applied Antineutrino Physics Workshop 2014  
APC, Paris, France, December 15-16, 2014
16. *Shedding Light on the Dark Sector With Neutrino Oscillations*  
Dark Interactions Workshop 2014  
Brookhaven, NY, USA, June 12-13, 2014
15. *Measurement of the Absolute Reactor Antineutrino Flux at Daya Bay* (poster)  
Neutrino 2014  
Boston, MA, USA, June 2-7, 2014
14. *Absolute Antineutrino Detection Efficiency at Daya Bay* (poster)  
APS April Meeting 2014  
Savannah, GA, USA, April 5-8, 2014
13. *PROSPECT: A Precision Reactor Oscillation and Spectrum Experiment*  
APS April Meeting 2014  
Savannah, GA, USA, April 5-8, 2014
12. *Status of US Short Baseline Reactor Efforts*  
IPA 2013: IceCube Particle Astrophysics Forum  
Madison, WI, USA, May 13-15, 2013
11. *Characterizing Energy Response in the Daya Bay Detectors*  
APS April Meeting  
Denver, CO, USA, April 13-16, 2013
10. *Worldwide Initiatives Toward Very Short Baseline Oscillation Searches*  
NNN 2012: Next-Generation Neutrino and Nucleon Decay Detectors  
Fermilab, Batavia IL, USA, October 4-6, 2012
9. *Opportunities for a Very Short Baseline Reactor Neutrino Experiment in the US* (poster)  
NNN 2012 Conference: Next-Generation Neutrino and Nucleon Decay Detectors  
Fermilab, Batavia IL, USA, October 4-6, 2012
8. *An Improved Measurement of Electron Antineutrino Disappearance at Daya Bay*  
2012 New Perspectives Meeting  
Fermilab, Batavia IL, USA, June 14, 2012
7. *Source and Reactor Experiments*  
2012 Future Short-Baseline Neutrino Experiments Workshop  
Fermilab, Batavia IL, USA, March 21, 2012
6. *Searching for Sterile Neutrinos at Daya Bay* (poster)  
2011 Intensity Frontier Workshop  
Rockville, Maryland, USA, November 30 – December 2, 2011

5. *Searching for Sterile Neutrinos at Daya Bay* (poster)

SNAC 2011, Sterile Neutrinos at the Crossroads  
Blacksburg, Virginia, USA, September 25-28, 2011

4. *Development and Characterization of the Acrylic Target Vessels for the Daya Bay Experiment* (poster)

TIPP 2011, Technology and Instrumentation in Particle Physics  
Chicago, Illinois, USA, June 9-14, 2011

3. *The First Pair of Antineutrino Detectors for the Daya Bay Experiment*

APS April Meeting 2011  
Anaheim, California, USA, April 30 – May 3, 2011

2. *Acrylic R&D for Neutrino and Dark Matter Experiments*

ANT 2010, Advances in Neutrino Technology  
Santa Fe, New Mexico, USA, September 16-18, 2010

1. *Design and Operation of the Daya Bay Antineutrino Detectors*

Pheno 2010 Symposium  
Madison, Wisconsin USA, May 10-12, 2010

### Selected Refereed Journal Articles

(\* indicates Bryce Littlejohn as co-editor or corresponding author)

(† indicates selection as Physical Review 'Editor's Suggestion' or 'Physics Viewpoint')

A full publication list can be found at <https://inspirehep.net/authors/1191643>

\* *Exploring Current Constraints on Antineutrino Production by Pu-241 and Paths Towards the Precision Reactor Flux Era.*

O. Benevides Rodrigues, Y. Fujikake, B. R. Littlejohn, and P. T. Surukuchi  
[arXiv\[hep-ex\]2301.13123 \(2023\).](#)  
Submitted to Phys. Rev. D.

\* *White Paper on Light Sterile Neutrino Searches and Related Phenomenology*

M. A. Acero, *et. al.*  
[arXiv\[hep-ex\]2203.07323 \(2022\).](#)  
Submitted to J. Phys. G.

\* *High Energy Physics Opportunities Using Reactor Antineutrinos*

C Awe, *et. al.*  
[arXiv\[hep-ex\]2203.07214 \(2022\).](#)  
Submitted to J. Phys. G.

\* *Low-Energy Physics in Neutrino LArTPCs*

S. Andriga, *et. al.*  
[J Phys. G 50 03-033001 \(2023\).](#)  
[arXiv\[hep-ex\]2203.00740 \(2022\).](#)

*Final Measurement of the U-235 Antineutrino Energy Spectrum with the PROSPECT-I Detector at HFIR.*

The PROSPECT Collaboration  
[arXiv\[hep-ex\]2212.10669 \(2022\).](#)  
Submitted to Phys. Rev. Lett.

*First Measurement of High-Energy Reactor Antineutrinos at Daya Bay*

The Daya Bay Collaboration.  
[Phys. Rev. Lett 129 041801 \(2022\).](#)



*Observation of Radon Mitigation in MicroBooNE by a Liquid Argon Filtration System*

MicroBooNE Collaboration

[P1INST 17 P11002 \(2022\).](#)

*Joint Measurement of the U-235 Antineutrino Spectrum by PROSPECT and STEREO.*

PROSPECT and STEREO Collaborations

[Phys. Rev. Lett 128 081802 \(2022\).](#)

*Joint Determination of Reactor Antineutrino Spectra from U-235 and Pu-239 by Daya Bay and PROSPECT.*

Daya Bay and PROSPECT Collaborations

[Phys. Rev. Lett 128 081801 \(2022\).](#)

*\*† Search for an Excess of Electron Neutrino Interactions in MicroBooNE Using Multiple Final State Topologies*

MicroBooNE Collaboration

[Phys. Rev. Lett 128 241801 \(2022\).](#)

*Search for an Anomalous Excess of Charged-Current Quasi-Elastic Electron Neutrino Interactions in the MicroBooNE Using Deep Learning-based Reconstruction*

MicroBooNE Collaboration

[Phys. Rev. D 105 112003 \(2022\).](#)

*PROSPECT-II Physics Opportunities*

PROSPECT Collaboration

[\[Phys G 49 070501 \(2022\)\]](#)

*\* Limits on sub-GeV Dark Matter from the PROSPECT Reactor Antineutrino Experiment*

PROSPECT Collaboration and C. Cappiello.

[Phys. Rev. D 104 012009 \(2021\).](#)

*\* Wavelength-Shifting Performance of Polyethylene Naphthalate Films in a Liquid Argon Environment*  
Y. Abraham, et. al.

[JINST 16 P07017 \(2021\).](#)

*Antineutrino Energy Spectrum Unfolding Based on the Daya Bay Measurement and its Applications*

The Daya Bay Collaboration.

[Chin. Phys. C 45 073001 \(2021\).](#)

*A Convolutional Neural Network for Multiple Particle Identification in the MicroBooNE Liquid Argon Time Projection Chamber*

The MicroBooNE Collaboration.

[Phys. Rev. D 103 092003 \(2021\).](#)

*Supernova Neutrino Burst Detection with the Deep Underground Neutrino Experiment*

The DUNE Collaboration.

[Eur. J. Phys. C 81 423 \(2021\).](#)

*†\* Improved Short-Baseline Neutrino Oscillation Search and Energy Spectrum Measurement with the PROSPECT Experiment at HFIR*

The PROSPECT Collaboration.

[Phys. Rev. D 103 032001 \(2021\).](#)

*\* Benefits of MeV-scale Reconstruction Capabilities in Large Liquid Argon Time Projection Chambers*

W. Castiglioni, W. Foreman, B. R. Littlejohn, I. Lepetic, M. Malaker, A. Mastbaum.

[Phys. Rev. D 102 092010 \(2020\).](#)

*Non-Fuel Antineutrino Contributions in the ORNL High Flux Isotope Reactor*  
The PROSPECT Collaboration.  
Phys. Rev. C 101 054605 (2020).

*Improved Limits on Millicharged Particles Using the ArgoNeuT Experiment at Fermilab*  
The ArgoNeuT Collaboration  
Phys. Rev. Lett 124 131801 (2020).

*Reconstruction and Measurement of  $O(100)$  MeV Energy Electromagnetic Activity from  $\pi^0 \rightarrow \gamma\gamma$  Decays in the MicroBooNE LArTPC*  
R. Acciarri, et. al., MicroBooNE Collaboration.  
JINST 15 P02007 (2020).

*Extraction of the  $U^{235}$  and  $Pu^{239}$  Antineutrino Spectra at Daya Bay*  
F. An, et. al., Daya Bay Collaboration.  
Phys. Rev. Lett 123 111801 (2019).

*A High-Precision Calibration of the Nonlinear Energy Response at Daya Bay*  
F. An, et. al., Daya Bay Collaboration.  
NIM A940 230 (2019).

*A Low Mass Optical Grid for the PROSPECT Reactor Antineutrino Detector*  
The PROSPECT Collaboration  
JINST 14 P04014 (2019).

*Design and Construction of the MicroBooNE Cosmic Ray Tagger System*  
R. Acciarri, et. al., MicroBooNE Collaboration.  
JINST 14 P04004 (2019).

*Measurement of the Antineutrino Spectrum from U-235 Fission at HFIR with PROSPECT*  
The PROSPECT Collaboration  
Phys. Rev. Lett. 122 251801 (2019).

*\*Diagnosing the Reactor Antineutrino Anomaly With Global Antineutrino Flux Data*  
C. Giunti, Y. F. Li, B. R. Littlejohn, and P. T. Surukuchi  
Phys. Rev. D 99 073005 (2019).

*\*Demonstration of MeV-scale Physics in Liquid Argon Time Projection Chambers using ArgoNeuT.*  
The ArgoNeuT Collaboration  
Phys. Rev. D 99 012002 (2019).

*\*First Search for Short-Baseline Neutrino Oscillations at HFIR with PROSPECT.*  
The PROSPECT Collaboration  
Phys. Rev. Lett. 121 251802 (2018).

*Performance of a Segmented  $^6\text{Li}$ -loaded liquid scintillator detector for the PROSPECT Experiment*  
The PROSPECT Collaboration  
JINST 13 P06023 (2018).

*†\* Impact of Fission Neutron Energies on Reactor Antineutrino Spectra.*  
B. R. Littlejohn, A. Conant, D. A. Dwyer, A. Erickson, I. Gustafson, K Hermanek  
Phys. Rev. D 97 073007 (2018).

*\* Prospects for Improved Understanding of Isotopic Reactor Antineutrino Fluxes.*

Y. Gebre, B. Littlejohn, P. T. Surukuchi.  
Phys. Rev. D **97** 013003 (2018).

†\* *Evolution of the Reactor Antineutrino Flux and Spectrum at Daya Bay*  
F. An, *et. al.*, Daya Bay Collaboration.  
Phys. Rev. Lett **118** 251801 (2017).

*Reactor Fuel Information on The Antineutrino Anomaly*  
C. Giunti, X. P. Ji, M. Laveder, Y. F. Li, and B. R. Littlejohn.  
JHEP 10:143 (2017).

*Improved Measurement of the Reactor Antineutrino Flux and Spectrum at Daya Bay*  
F. An, *et. al.*, Daya Bay Collaboration.  
Chin. Phys. C **41** 013002 (2017).

*Design and Construction of the MicroBooNE Detector*  
R. Acciarri, *et. al.*, MicroBooNE Collaboration.  
JINST **12** P02017 (2017).

*Convolutional Neural Networks Applied to Neutrino Events in a Liquid Argon Time Projection Chamber*  
R. Acciarri, *et. al.*, MicroBooNE Collaboration.  
JINST **12** P03011 (2017).

† *Measurement of Electron Antineutrino Oscillation Based on 1230 Days of Operation of the Daya Bay Experiment.*  
F. An, *et. al.*, Daya Bay Collaboration. arXiv[hep-ex:1610.04802] (2016).  
Phys. Rev. D **95** 072006 (2017).

*Improved Measurement of the Reactor Antineutrino Flux and Spectrum at Daya Bay*  
F. An, *et. al.*, Daya Bay Collaboration.  
Chin. Phys. C **41** 013002 (2017).

*The PROSPECT Physics Program*  
J. Ashenfelter, *et. al.*, PROSPECT Collaboration.  
J. Phys. G. **43** 113001 (2016).

† *Measurement of the Reactor Antineutrino Flux and Spectrum at Daya Bay*  
F. An, *et. al.*, Daya Bay Collaboration.  
Phys. Rev. Lett. **116** 061801 (2016).

† *Limits on Active to Sterile Neutrino Oscillations From Disappearance Searches from Disappearance Searches in the MINOS, Daya Bay, and Bugey-3 Experiments.*  
P. Adamson, *et. al.*, Daya Bay and MINOS Collaborations.  
Phys. Rev. Lett. **117** 151801 (2016)

*Improved Search for a Light Sterile Neutrino with the Full Configuration of the Daya Bay Experiment*  
F. An, *et. al.*, Daya Bay Collaboration.  
Phys. Rev. Lett. **117** 151802 (2016)

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## Proposals, Reports, and White Papers

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## Supervised Students and Postdoctoral Fellows

<u>Postdoctoral Fellows</u>	<u>School</u>	<u>Dates</u>	<u>Current Position</u>
- Ohana Benevides Rodrigues	IIT	2022-	NA
- Ryan Dorrill	IIT	2019-	NA
- Will Foreman	IIT	2019-	NA
- Jose Palomino Gallo	IIT	2018-2022	Data Analyst, Amazon
- David Martinez	IIT	2014-2018	Assistant Professor, South Dakota School of Mines and Technology
- Karin Gilje	IIT	2014-2017	Bollinger Fellow, Penn University
<u>Graduate PhD Students</u>	<u>School</u>	<u>Dates</u>	<u>Subsequent Position</u>
- Anosh Irani	IIT	2021-	NA
- Diego Andrade Aldana	IIT	2021-	NA
- Miguel Hernandez	IIT	2020-	NA
<i>Awardee, 2021 Starr-Fieldhouse Research Fellowship</i>			
- Manoa Andriamirado	IIT	2019-	NA
- Ivan Lepetic	IIT	2016-2019	Postdoctoral Fellow, Rutgers Univ.
<i>Awardee, Fall 2016 DOE SCGSR Fellowship; ARCS Illinois Scholar, 2016-2018; Winner, 2018 Fermilab Users Meeting Poster Competition; Winner, 2019 IIT College of Science Dissertation Research Award</i>			
- Rui An	IIT	2015-2020	Machine Learning Engineer, Hiretual
- Pranava Surukuchi	IIT	2014-2019	Postdoctoral Fellow, Yale University
<i>Winner, Best Physics Poster, 2015 and 2016 IIT Poster Day</i>			
- Xianyi Zhang	IIT	2014-2019	Staff Scientist, LLNL
<u>Graduate Masters Students</u>	<u>School</u>	<u>Dates</u>	<u>Subsequent Position</u>
- Leia Asimacopoulos	IIT	2017-2019	Analyst, Fusion Risk Management
- Johnny Echevers	IIT	2016-2017	PhD Student, UIUC
<u>Undergraduate Students</u>	<u>School</u>	<u>Dates</u>	<u>Subsequent Position</u>
- Alyssa Bowes	IIT	2014-2016	Project Manager, Xero Solar
<i>CEU Selectee, Travel Grant Award, DPF 2016 Conference</i>			
- Jeremy Becker	IIT	2015-2015	Engineer, Weber Metals
- Yonas Gebre	IIT	2017-2018	Grad Student, UC-Boulder
<i>Awardee, 2017 IIT Undergraduate Research Program</i>			
<i>CEU Selectee, Travel Grant Award, DPF 2017 Conference</i>			
<i>2017 IIT Poster Day: Winner, Best Undergraduate Physics Poster</i>			
- Keith Hermanek	IIT	2016-2019	Grad Student, Indiana University
<i>CEU Selectee, Travel Grant Award, DPF 2017 Conference</i>			
- Ian Gustafson	IIT	2016-2019	Grad Student, Auburn University
<i>CEU Selectee, Travel Grant Award, DPF 2017 Conference</i>			

- Lexi Detweiler	IIT	2017-2018	Health Physicist, ORNL Y-12 Plant
- Yanitzia Shindraev	IIT	2018-2018	NA
- Quinn Castaneda	IIT	2018-2018	Research Assistant, Influx Energy
- Whit Castiglioni	IIT	2018-2021	Grad Student, Chicago University
2019 IIT Poster Day: Winner, Best Undergraduate Physics Poster			
2020 SULI Selectee, Fermi National Laboratory			
- Katia Flores	IIT	2019-2019	NA
- Matthew Malaker	IIT	2019-2020	Grad Student, Arizona University
2021 SULI Selectee, Fermi National Laboratory			
- Grace Whitmore	IIT	2020-2020	NA
- Joel Kelsey	IIT	2020-2023	NA
- Yoshinobu Fujikake	IIT	2020-2023	NA
- Melody Drevline	IIT	2020-2020	NA
- Daksh Patel	IIT	2021-2022	Health Physicist, Constellation Energy
- Nehemyah Green	IIT	2022-	NA
- Jonte' Williams	IIT	2022-	NA
- Claire Zwicker	IIT	2022-	NA
- Liani Silva	IIT	2022-	NA
- Erik Olynik	IIT	2023-	NA

**References available upon request**