

David C. Moore

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Education

Ph.D., Physics, California Institute of Technology, 2012

Dissertation title: *"A search for low-mass dark matter with the Cryogenic Dark Matter Search and the development of highly-multiplexed phonon-mediated particle detectors"*

Adviser: Prof. Sunil Golwala

B.S., Physics, Mathematics, Yale University, 2006
magna cum laude, with distinction in both majors

Academic appointments

2022-present: Associate Professor of Physics, Yale University

2016-2022: Assistant Professor of Physics, Yale University

2012-2016: Postdoctoral Scholar, Stanford University

Research positions

2019-present: Subsystem Scientist for nEXO Photon Detector

2017-present: Member of nEXO Executive Council

2016-present: EXO-200/nEXO Collaboration Board member

2015-2017: EXO-200 analysis coordinator

2006-2012: Graduate research assistant, California Institute of Technology

2005-2006: Undergraduate researcher, Yale University

2004: Summer research internship, Fermilab

2003: Summer researcher, Universidad de Chile and Yale University

Teaching

Phys 524: *Introduction to Nuclear Physics*, Yale, Fall 2022

Phys 678: *Computing for Scientific Research*, Yale, Spring 2022

Phys 524: *Introduction to Nuclear Physics*, Yale, Fall 2021

Phys 430: *Electromagnetic Fields & Optics*, Yale, Spring 2021

Phys 524: *Introduction to Nuclear Physics*, Yale, Fall 2020

Phys 430: *Electromagnetic Fields & Optics*, Yale, Spring 2020

Phys 165L: *General Physics Laboratory*, Yale, Fall 2019

Phys 430: *Electromagnetic Fields & Optics*, Yale, Spring 2019

Phys 469/Phys 471: *Independent Projects in Physics*, Yale, Fall 2018

Phys 472: *Independent Projects in Physics*, Yale, Spring 2017

Phys 205L/Phys 206L: *Modern Physical Measurement I&II*, Yale, Fall 2016

Honors and awards

Arthur Greer Memorial Prize, Yale, 2022
 Alfred P. Sloan Research Fellowship in Physics, 2018
 NSF Early Career Award, 2017
 Lee Grodzins Postdoctoral Award, MIT, 2015
 Mitsuyoshi Tanaka Dissertation Award in Experimental Particle Physics, APS, 2013
 John Stager Stemple Memorial Prize in Physics, Caltech, 2009
 NSF Graduate Research Fellowship Program, Honorable Mention, 2006
 Howard L. Schultz Prize in Physics, Yale, 2006
 Anthony D. Stanley Prize in Mathematics, Yale, 2006
 De Forest Senior Prize in Mathematics, Yale, 2006
 National Merit Scholarship, 2002

Selected publications

1. D. Carney, K. Leach, and D.C. Moore, "Searches for massive neutrinos with mechanical quantum sensors," arXiv:2207.05883 (2022).
2. S. Al Kharusi et al., "Search for MeV Electron Recoils from Dark Matter in EXO-200," arXiv:2207.00897 (2022).
3. G. Adhikari et al. (nEXO), "nEXO: Neutrinoless double beta decay search beyond 10^{28} year half-life sensitivity," J. Phys. G: Nucl. Part. Phys. 49 015104 (2022), arXiv:2106.16243.
4. A. Avasthi et al., "Kiloton-scale xenon detectors for neutrinoless double beta decay and other new physics searches," Phys. Rev. D 104, 112007 (2021), arXiv:2110.01537.
5. G. Afek, D. Carney, and D.C. Moore, "Coherent scattering of low mass dark matter from optically trapped sensors," Phys. Rev. Lett. 128, 101301 (2022) arXiv:2111.03597 (*PRL Editor's suggestion*).
6. S. Al Kharusi et al., "Search for Majoron-emitting modes of ^{136}Xe double beta decay with the complete EXO-200 dataset," Phys. Rev. D 104, 112002 (2021), arXiv:2109.01327.
7. G. Afek, F. Monteiro, B. Siegel, J. Wang, S. Dickson, J. Recoaro, M. Watts, and D.C. Moore, "Control and measurement of electric dipole moments in levitated optomechanics," Phys. Rev. A 104, 053512 (2021), arXiv:2108.04406.
8. D. Carney, H. Häffner, D.C. Moore, and J. Taylor, "Trapped electrons and ions as particle detectors," Phys. Rev. Lett. 127, 061804 (2021), arXiv:2104.05737 (*PRL Editor's suggestion*).
9. G. Afek et al., "Limits on the abundance of millicharged particles bound to matter," Phys. Rev. D 104, 012004 (2021) arXiv:2012.08169.
10. D. Carney et al., "Mechanical quantum sensing in the search for dark matter," Quantum Sci. Technol. 6 024002 (2021) arXiv:2008.06074.
11. D.C. Moore and A.A. Geraci, "Searching for new physics using optically levitated sensors," Quantum Sci. Technol. 6 014008 (2021) arXiv:2008.13197.
12. F. Monteiro et al., "Search for composite dark matter with optically levitated sensors," Phys. Rev. Lett. 125, 181102 (2020) arXiv:2007.12067.
13. F. Monteiro et al., "Force and acceleration sensing with optically levitated nanogram masses at microkelvin temperatures," Phys. Rev. A 101, 053835 (2020), arXiv:2001.10931 (*PRA Editor's suggestion*).
14. G. Anton et al., "Measurement of the scintillation and ionization response of liquid xenon at MeV energies in the EXO-200 experiment," Phys. Rev. C 101, 065501 (2020), arXiv:1908.04128.
15. Z. Li et al., "Simulation of charge readout with segmented tiles in nEXO," JINST 14 P09020 (2019), arXiv:1907.07512.

16. G. Anton et al., "Search for Neutrinoless Double-Beta Decay with the Complete EXO-200 Dataset," Phys. Rev. Lett. 123, 161802 (2019) arXiv:1906.02723. (*PRL Editor's suggestion*)
17. C. Chambers et al., "Imaging individual barium atoms in solid xenon for barium tagging in nEXO," Nature 569, 203 (2019), arXiv:1806.10694.
18. F. Monteiro, S. Ghosh, E.C. van Assendelft, and D.C. Moore, "Optical Rotation of Levitated Spheres in High Vacuum," Phys. Rev. A 97, 051802(R) (2018), arXiv:1803.04297 (*PRA Editor's suggestion*).
19. J.B Albert et al., "Sensitivity and Discovery Potential of nEXO to Neutrinoless Double Beta Decay," Phys. Rev. C 97, 065503 (2018), arXiv:1710.05075.
20. S. Al Kharusi et al., "nEXO Pre-Conceptual Design Report," arXiv:1805.11142 (2018).
21. J.B. Albert et al., "Search for Neutrinoless Double-Beta Decay with the Upgraded EXO-200 Detector," Phys. Rev. Lett. 120, 072701 (2018), arXiv:1707.08707 (*Featured in APS Physics "Viewpoint"*).
22. A. Jamil et al., "VUV-sensitive Silicon Photomultipliers for Xenon Scintillation Light Detection in nEXO," IEEE Trans. Nucl. Sci. 65, 2823 (2018), arXiv:1806.02220.
23. F. Monteiro, S. Ghosh, A.G. Fine, and D.C. Moore, "Optical levitation of 10 nanogram spheres with nano-g acceleration sensitivity," Phys. Rev. A, 96, 063841 (2017), arXiv:1711.04675.
24. D.C. Moore, A.D. Rider, and G. Gratta, "Search for Millicharged Particles Using Optically Levitated Microspheres," Phys. Rev. Lett., 113, 251801 (2014), arXiv:1408.4396 (*Featured in APS Physics "Synopsis"*).
25. J.B. Albert et al., "Search for Majorana neutrinos with the first two years of EXO-200 data," Nature 510, 229 (2014), arXiv:1402.6956.
26. Z. Ahmed et al., "Results from a Low-Energy Analysis of CDMS II Germanium Data," Phys. Rev. Lett. 106, 131302 (2011), arXiv:1011.2482 (*PRL Editor's suggestion*).
27. D.C. Moore et al., "Position and energy-resolved particle detection using phonon-mediated microwave kinetic inductance detectors," Appl. Phys. Lett. 100, 232601 (2012), arXiv:1203.4549.
28. Z. Ahmed et al., "Dark matter search results from the CDMS II experiment," Science 327, 1619 (2010), arXiv:0912.3592.

Colloquia, seminars, and invited conference presentations

1. Physics Colloquium, McGill University, Montreal, Canada, October 20, 2022
2. Particle and Astroparticle Seminar, McGill University, Montreal, Canada, October 19, 2022
3. School on Table-Top Experiments for Fundamental Physics, Perimeter Institute, Waterloo, Canada, September 22, 2022
4. Gordon Research Conference on Photonuclear Reactions, Holderness, NH, August, 11, 2022
5. Quantum Engineering of Levitated Systems 2022, Benasque, Spain, April 26, 2022
6. Nuclear Physics Seminar, University of Kentucky (online), Lexington, KY, April 7, 2022
7. New Methods and Ideas at the Frontiers of Particle Physics, Aspen Center for Physics, Aspen, CO, March 23, 2022
8. APS March Meeting Symposium on Probing New Physics with Optomechanical Systems, Chicago, IL, March 14, 2022
9. Colloquium, Princeton Plasma Physics Laboratory, Princeton, NJ (online), March 2, 2022
10. Optical and Quantum Sensing and Precision Metrology, SPIE Photonics West, San Francisco, CA, January 23, 2022
11. SURF Long-term Vision Workshop (online), Sanford Underground Research Facility (SURF), Lead, SD, September 15, 2021
12. Challenges for Witnessing Quantum Aspects of Gravity in a Lab (online), ICTP-SAIFR, São Paulo, Brazil, June 10, 2021

13. Physics Colloquium, Massachusetts Institute of Technology (online), Cambridge, MA, April 22, 2021
14. SCIPP Seminar, University of California, Santa Cruz (online), Santa Cruz, CA, April 20, 2021
15. British Optomechanical Research Network (BORN) UniKORN Seminar (online), United Kingdom, March 10, 2021
16. Yale Quantum Institute Seminar (online), Yale University, New Haven, CT, December 4, 2020
17. Snowmass Mini Workshop: $0\nu\beta\beta$ Experiment (online), August 5, 2020
18. Group on Precision Measurement & Fundamental Constants Workshop, APS DAMOP (online), June 1, 2020
19. Quantum Information Science for Fundamental Physics, Aspen Center for Physics, Aspen, CO, February 21, 2020
20. West-Lake Photonics Symposium, Photonics Asia, Hangzhou, China, October 20, 2019
21. CoQuS Colloquium, University of Vienna, Vienna, Austria, October 14, 2019
22. Physics Colloquium, University of Albany, Albany, NY, September 27, 2019
23. ITAMP Laboratory Cosmology Workshop, Harvard CfA, Cambridge, MA, September 17, 2019
24. Levitated Optomechanics (699th WE-Heraeus-Seminar), Bad Honnef, Germany, August 1, 2019
25. Indirect Searches for New Physics across the Scales, Mainz Institute for Theoretical Physics (MITP), Mainz, Germany, June 18, 2019
26. First Arizona Workshop on Precision Searches for Fundamental Physics (AZPP2019), Tempe, AZ, February 4, 2019
27. HEP Seminar, Penn State University, State College, PA, October 24, 2018
28. Quantum Engineering of Levitated Systems, Benasque, Spain, September 17, 2018
29. Optical Trapping and Optical Micromanipulation XV, San Diego, CA, August 20, 2018
30. High Energy Physics at the Sensitivity Frontier, Kavli Institute for Theoretical Physics, Santa Barbara, CA, April 3, 2018
31. Physics Colloquium, Amherst College, Amherst, MA, February 6, 2018
32. Physics Colloquium, Yale University, New Haven, CT, January 22, 2018
33. Beyond the Standard Model in Tabletop Experiments, Weizmann Institute, Rehovot, Israel, November 15, 2017
34. APS Division of Nuclear Physics, Pittsburgh, PA, October 28, 2017
35. Neutrino Seminar Series, Fermilab, Batavia, IL, October 19, 2017
36. International Workshop on Baryon & Lepton Number Violation, Case Western Reserve University, Cleveland, OH, May 15, 2017
37. AFCI Seminar, University of Massachusetts, Amherst, MA, April 18, 2017
38. 3IT Seminar, Sherbrooke University, Quebec, Canada, April 7, 2017
39. Particle and Astroparticle Seminar, McGill University, Montreal, Canada, April 6, 2017
40. Particle Physics Seminar, Stony Brook University, Stony Brook, NY, April 3, 2017
41. 52nd Rencontres de Moriond, Electroweak Interactions And Unified Theories, La Thuile, Italy, March 23, 2017
42. KICP Seminar, University of Chicago, Chicago, IL, March 10, 2017
43. Sub-eV Dark Matter Workshop, LBNL, Berkeley, CA, December 9, 2016
44. Workshop on Statistical Issues in Experimental Neutrino Physics, Fermilab, Batavia, IL, September 20, 2016
45. Dark Energy in the Laboratory, Royal Society at Chicheley Hall, Buckinghamshire, UK, April, 22, 2016
46. SLAC Experimental Particle Physics Seminar, Menlo Park, CA, March 17, 2016
47. Physics Colloquium, University of Colorado, Boulder, CO, March 14, 2016

48. Physics Colloquium, University of Alabama, Tuscaloosa, AL, March 2, 2016
49. Nuclear, Particle, and Astrophysics Seminar, Yale University, New Haven, CT, February 25, 2016
50. Nuclear and Particle Physics Colloquium, MIT, Cambridge, MA, February 22, 2016
51. HEP-Astro Seminar, University of Michigan, Ann Arbor, MI, February 1, 2016
52. HEAP Seminar, University of California, Los Angeles, CA, January 28, 2016
53. Physics Colloquium, Virginia Tech, Blacksburg, VA, January 25, 2016
54. High Energy Physics Seminar, Caltech, Pasadena, CA, January 12, 2016
55. Physics Colloquium, New Mexico State University, Las Cruces, NM, November 12, 2015
56. Lee Grodzins Postdoctoral Award Colloquium, MIT, Cambridge, MA, September 14, 2015
57. Workshop on Dark Matter Direct Detection, LBNL, Berkeley, CA, June 9, 2015
58. Physics Colloquium, University of Texas, Austin, TX, February 23, 2015
59. Nuclear, Particle, and Astrophysics Seminar, Yale University, New Haven, CT, February 19, 2015
60. Laboratory for Particle Physics and Cosmology Seminar, Harvard University, Cambridge, MA, February 18, 2015
61. Astronomy and Physics Seminar, University of California, Berkeley, CA, February 12, 2015
62. Center for Particles and Fields Seminar, University of Texas, Austin, TX, January 23, 2015
63. Kavli Institute for Particle Astrophysics and Cosmology Tea Talk, Menlo Park, CA, March 14, 2014
64. Tanaka Dissertation Prize Lecture, APS DPF 2013, Santa Cruz, CA, August 27, 2013
65. Particle Astrophysics Seminar, McGill University, Montreal, Canada, March 28, 2012
66. HEPL Seminar, Stanford University, Stanford, CA, March 21, 2012
67. Observational Cosmology Seminar, Caltech, Pasadena, CA, June 2, 2011
68. Aspen Winter Conference on Indirect and Direct Detection of Dark Matter, Aspen, CO, February 10, 2011
69. Fermilab Particle Astrophysics Seminar, Batavia, IL, February 21, 2011
70. Observational Cosmology Seminar, Caltech, Pasadena, CA, February 3, 2011
71. Physics of the Universe Summit 2011, Hawthorne, CA, January 8, 2011
72. High Energy Physics Seminar, Caltech, Pasadena, CA, February 8, 2010

Other conference presentations

1. New Technologies for Discovery IV: The CPAD Instrumentation Frontier Workshop, Providence, RI, December 12, 2018
2. 28th Texas Symposium on Relativistic Astrophysics, Geneva, Switzerland, December 14, 2015
3. 20th Particles and Nuclei International Conference, Hamburg, Germany, August 23, 2014
4. 24th Workshop on Weak Interactions and Neutrinos, Natal, Brazil, September 19, 2013
5. Low Temperature Detectors 14, Heidelberg, Germany, August 4, 2011
6. 4th Workshop on the Physics and Applications of Superconducting Microresonators, Grenoble, France, July 29, 2011
7. APS April Meeting, Anaheim, CA, May 2, 2011
8. APS April Meeting, Washington, DC, February 13, 2010
9. 3rd Workshop on the Physics and Applications of Superconducting Microresonators, Santa Barbara, CA, January 22, 2010
10. Low Temperature Detectors 13 (poster), Stanford, CA, July 23, 2009
11. 24th International Symposium on Lattice Field Theory (poster), Tucson, AZ, July 25, 2006

All publications

1. D. Carney, K. Leach, and D.C. Moore, "Searches for massive neutrinos with mechanical quantum sensors," arXiv:2207.05883 (2022).
2. G. Adhikari et al. (nEXO), "nEXO: Neutrinoless double beta decay search beyond 10^{28} year half-life sensitivity," J. Phys. G: Nucl. Part. Phys. 49 015104 (2022), arXiv:2106.16243.
3. G. Afek, D. Carney, and D.C. Moore, "Coherent scattering of low mass dark matter from optically trapped sensors," Phys. Rev. Lett. 128, 101301 (2022) arXiv:2111.03597 (*PRL Editor's suggestion*).
4. A. Avasthi et al., "Kiloton-scale xenon detectors for neutrinoless double beta decay and other new physics searches," Phys. Rev. D 104, 112007 (2021), arXiv:2110.01537.
5. S. Al Kharusi et al., "Search for Majoron-emitting modes of ^{136}Xe double beta decay with the complete EXO-200 dataset," Phys. Rev. D 104, 112002 (2021), arXiv:2109.01327.
6. G. Afek, F. Monteiro, B. Siegel, J. Wang, S. Dickson, J. Recoaro, M. Watts, and D.C. Moore, "Control and measurement of electric dipole moments in levitated optomechanics," Phys. Rev. A 104, 053512 (2021), arXiv:2108.04406.
7. N. Ackerman et al., "The EXO-200 detector, part II: Auxiliary systems," arXiv:2107.06007 (2021).
8. M. Wagenpfeil et al., "Reflectivity of VUV-sensitive Silicon Photomultipliers in Liquid Xenon," JINST 16 Po8002 (2021), arXiv:2104.07997.
9. D. Carney, H. Häffner, D.C. Moore, and J. Taylor, "Trapped electrons and ions as particle detectors," Phys. Rev. Lett. 127, 061804 (2021), arXiv:2104.05737 (*PRL Editor's suggestion*).
10. D. Carney et al., "Mechanical quantum sensing in the search for dark matter," Quantum Sci. Technol. 6 024002 (2021) arXiv:2008.06074.
11. D.C. Moore and A.A. Geraci, "Searching for new physics using optically levitated sensors," Quantum Sci. Technol. 6 014008 (2021) arXiv:2008.13197.
12. G. Afek et al., "Limits on the abundance of millicharged particles bound to matter," Phys. Rev. D 104, 012004 (2021) arXiv:2012.08169.
13. P. Lv et al., "Reflectance of Silicon Photomultipliers at Vacuum Ultraviolet Wavelengths," IEEE Trans. Nucl. Sci. 67, 2501 (2020), arXiv:1912.01841.
14. F. Monteiro et al., "Search for composite dark matter with optically levitated sensors," Phys. Rev. Lett. 125, 181102 (2020) arXiv:2007.12067.
15. T. Stiegler et al., "Event Reconstruction in a Liquid Xenon Time Projection Chamber with an Optically-Open Field Cage," Nucl. Instr. Meth. Phys. Res. A 1000, 165239 (2021), arXiv:2009.10231.
16. G. Anton et al., "Measurement of the scintillation and ionization response of liquid xenon at MeV energies in the EXO-200 experiment," Phys. Rev. C 101, 065501 (2020), arXiv:1908.04128.
17. F. Monteiro et al., "Force and acceleration sensing with optically levitated nanogram masses at microkelvin temperatures," Phys. Rev. A 101, 053835 (2020), arXiv:2001.10931 (*PRA Editor's suggestion*).
18. S. Al Kharusi et al., "Measurement of the Spectral Shape of the β -Decay of ^{137}Xe to the Ground State of ^{137}Cs in EXO-200 and Comparison with Theory," Phys. Rev. Lett. 124, 232502 (2020), arXiv:2002.00108.
19. O. Njoya et al., "Measurements of electron transport in liquid and gas xenon using a laser-driven photocathode," NIM A 972, 163965 (2020), arXiv:1911.11580.
20. P. Nakarmi et al., "Reflectivity and PDE of VUV4 Hamamatsu SiPMs in liquid xenon," JINST 15 Po1019 (2020), arXiv:1910.06438.
21. G. Gallina et al., "Characterization of the Hamamatsu VUV4 MPPCs for nEXO," Nucl. Instrum. Meth. Phys. Res. A, 940, 371 (2019), arXiv:1903.03663.
22. S. Ghosh et al., "Fabrication of large vaterite microspheres for optical trapping and rotation in high vacuum," SPIE Proc 11083, Optical Trapping and Optical Micromanipulation XVI; 1108317 (2019).

23. Z. Li et al., "Simulation of charge readout with segmented tiles in nEXO," JINST **14** P09020 (2019), arXiv:1907.07512.
24. G. Anton et al., "Search for Neutrinoless Double-Beta Decay with the Complete EXO-200 Dataset," Phys. Rev. Lett. **123**, 161802 (2019) arXiv:1906.02723. (*PRL Editor's suggestion*)
25. C. Chambers et al., "Imaging individual barium atoms in solid xenon for barium tagging in nEXO," Nature **569**, 203 (2019), arXiv:1806.10694.
26. X.L. Sun et al., "Study of silicon photomultiplier performance in external electric fields," JINST **13** T09006 (2018), arXiv:1807.03007.
27. A. Jamil et al., "VUV-sensitive Silicon Photomultipliers for Xenon Scintillation Light Detection in nEXO," IEEE Trans. Nucl. Sci. **65**, 2823 (2018), arXiv:1806.02220.
28. R. Agnese et al., "Nuclear-recoil energy scale in CDMS II silicon dark-matter detectors," Nucl. Instr. Meth. Phys. Res. A **905**, 71 (2018), arXiv:1803.02903.
29. S. Al Kharusi et al., "nEXO Pre-Conceptual Design Report," arXiv:1805.11142 (2018).
30. S. Delaquis et al., "Deep neural networks for energy and position reconstruction in EXO-200," JINST **13**, Po8023 (2018), arXiv:1804.09641.
31. F. Monteiro, S. Ghosh, E.C. van Assendelft, and D.C. Moore, "Optical Rotation of Levitated Spheres in High Vacuum," Phys. Rev. A **97**, 051802(R) (2018), arXiv:1803.04297.
32. A.D. Rider, C.P. Blakemore, G. Gratta, and D.C. Moore, "Single-beam Dielectric Microsphere Trapping with Optical Heterodyne Detection," Phys. Rev. A **97**, 013842 (2018), arXiv:1710.03558.
33. J.B. Albert et al., "Search for Neutrinoless Double-Beta Decay with the Upgraded EXO-200 Detector," Phys. Rev. Lett. **120**, 072701 (2018), arXiv:1707.08707.
34. M. Jewell et al., "Characterization of an Ionization Readout Tile for nEXO," JINST **13** Po1006 (2018), arXiv:1710.05109.
35. J.B. Albert et al., "Sensitivity and Discovery Potential of nEXO to Neutrinoless Double Beta Decay," Phys. Rev. C **97**, 065503 (2018), arXiv:1710.05075.
36. J.B. Albert et al., "Search for nucleon decays with EXO-200" Phys. Rev. D **97**, 072007 (2018), arXiv:1710.07670.
37. F. Monteiro, S. Ghosh, A.G. Fine, and D.C. Moore, "Optical levitation of 10 nanogram spheres with nano-g acceleration sensitivity," Phys. Rev. A, **96**, 063841 (2017), arXiv:1711.04675.
38. J.B. Albert et al., "Searches for Double Beta Decay of ^{134}Xe with EXO-200," Phys. Rev. D **96**, 092001 (2017), arXiv:1704.05042.
39. D.S. Leonard et al., "Trace radioactive impurities in final construction materials for EXO-200," Nucl. Instrum. Meth. A **871**, 169 (2017), arXiv:1703.10799.
40. J.B. Albert et al., "Measurement of the Drift Velocity and Transverse Diffusion of Electrons in Liquid Xenon with the EXO-200 Detector," Phys. Rev. C, **95**, 025502 (2016), arXiv:1609.04467.
41. A.D. Rider, D.C. Moore, C.P. Blakemore, M. Louis, M. Lu, G. Gratta, "Search for Screened Interactions Below the Dark Energy Length Scale Using Optically Levitated Microspheres," Phys. Rev. Lett., **117**, 101101 (2016), arXiv:1604.04908.
42. C.G. Davis et al., "An Optimal Energy Estimator to Reduce Correlated Noise for the EXO-200 Light Readout," JINST **11**, Po7015 (2016), arXiv:1605.06552.
43. J.B. Albert et al., "First search for Lorentz and CPT violation in double beta decay with EXO-200," Phys. Rev. D **93**, 072001 (2016), arXiv:1601.07266.
44. J.B. Albert et al., "Cosmogenic Backgrounds to $0\nu\beta\beta$ in EXO-200," JCAP **04**, 029 (2016), arXiv:1512.06835.
45. J.B. Albert et al., "Search for $2\nu\beta\beta$ decay of ^{136}Xe to the $0+1$ excited state of ^{136}Ba with EXO-200," submitted to Phys. Rev. C (2015), arXiv:1511.04770.
46. J.B. Albert et al., "Measurements of the ion fraction and mobility of alpha and beta decay products in liquid xenon using EXO-200," Phys. Rev. C **92**, 045504 (2015), arXiv:1506.00317.

47. J.B. Albert et al., "Investigation of radioactivity-induced backgrounds in EXO-200," *Phys. Rev. C* **92**, 015503 (2015), arXiv:1503.06241.
48. T. Brunner et al., "An RF-only ion-funnel for extraction from high-pressure gases," *Int. J. Mass Spec.* **379**, 110 (2015), arXiv:1412.1144.
49. B. Mong et al., "Spectroscopy of Ba and Ba+ deposits in solid xenon for barium tagging in nEXO," *Phys. Rev. A* **91**, 022505 (2014), arXiv:1410.2624.
50. R. Agnese et al., "Maximum Likelihood Analysis of Low Energy CDMS II Germanium Data," *Phys. Rev. D* **91**, 052021 (2014), arXiv:1410.1003.
51. J.B. Albert et al., "Search for Majoron-emitting modes of double-beta decay of ^{136}Xe with EXO-200," *Phys. Rev. D* **90**, 092004 (2014), arXiv:1409.6829.
52. R. Agnese et al., "First direct limits on Lightly Ionizing Particles with electric charge less than $e/6$," *Phys. Rev. Lett.* **114**, 111302 (2014), arXiv:1409.3270.
53. D.C. Moore, A.D. Rider, and G. Gratta, "Search for Millicharged Particles Using Optically Levitated Microspheres," *Phys. Rev. Lett.*, **113**, 251801 (2014), arXiv:1408.4396.
54. K. Twelker et al., "An apparatus to manipulate and identify individual Ba ions from bulk liquid Xe," *Rev. Sci. Instrum.* **85**, 095114 (2014), arXiv:1407.0618.
55. J.B. Albert et al., "Search for Majorana neutrinos with the first two years of EXO-200 data," *Nature* **510**, 229 (2014), arXiv:1402.6956.
56. R. Agnese et al., "Search for Low-Mass Weakly Interacting Massive Particles Using Voltage-Assisted Calorimetric Ionization Detection in the SuperCDMS Experiment," *Phys. Rev. Lett.* **112**, 041302 (2014), arXiv:1309.3259.
57. J.B. Albert et al., "An improved measurement of the $2\nu\beta\beta$ half-life of Xe-136 with EXO-200," *Phys. Rev. C* **89**, 015502 (2014), arXiv:1306.6106.
58. R. Agnese et al., "Demonstration of Surface Electron Rejection with Interleaved Germanium Detectors for Dark Matter Searches," *Appl. Phys. Lett.* **103**, 164105 (2013), arXiv:1305.2405.
59. R. Agnese et al., "Silicon Detector Dark Matter Results from the Final Exposure of CDMS II," *Phys. Rev. Lett.* **111**, 251301 (2013), arXiv:1304.4279.
60. R. Agnese et al., "Silicon detector results from the first five-tower run of CDMS II," *Phys. Rev. D* **88**, 031104 (2013), arXiv:1304.3706.
61. D.C. Moore, "A search for low-mass dark matter with the cryogenic dark matter search and the development of highly multiplexed phonon-mediated particle detectors," Ph.D. thesis, California Institute of Technology (2012).
62. D.C. Moore et al., "Position and energy-resolved particle detection using phonon-mediated microwave kinetic inductance detectors," *Appl. Phys. Lett.* **100**, 232601 (2012), arXiv:1203.4549.
63. Z. Ahmed et al., "Search for annual modulation in low-energy CDMS II data" (2012), arXiv:1203.1309.
64. D.C. Moore et al., "Phonon mediated microwave kinetic inductance detectors," *J. Low Temp. Phys.* **167**, 329 (2012).
65. Z. Ahmed et al., "Combined Limits on WIMPs from the CDMS and EDELWEISS Experiments," *Phys. Rev. D* **84**, 011102 (2011), arXiv:1105.3377.
66. Z. Ahmed et al., "Search for inelastic dark matter with the CDMS II experiment," *Phys. Rev. D* **83**, 112002 (2011), arXiv:1012.5078.
67. Z. Ahmed et al., "Results from a Low-Energy Analysis of CDMS II Germanium Data," *Phys. Rev. Lett.* **106**, 131302 (2011), arXiv:1011.2482.
68. D.S. Akerib et al., "A low-threshold analysis of CDMS shallow-site data," *Phys. Rev. D* **82**, 122004 (2010), arXiv:1010.4290.
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