# 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

Associate Professor of Physics, Yale University, 2022-present

Assistant Professor of Physics, Yale University, 2016-2022

Postdoctoral Scholar, Stanford University, 2012-2016

## Research positions

Subsystem Scientist for nEXO Photon Detector, 2019-present

Member of nEXO Executive Council, 2017-present

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

EXO-200 analysis coordinator, 2015-2017

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

Undergraduate researcher, Yale University, 2005-2006

Summer research internship, Fermilab, 2004

Summer researcher, Universidad de Chile and Yale University, 2003

## 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

## Teaching

Phys 678: *Computing for Scientific Research*, Yale, Spring 2023
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

## Presentations

Invited presentations (33 invited conference presentations, 20 colloquia, 35 seminars):

1. Gordon Research Conference on Mechanical Systems in the Quantum Regime, Ventura, CA, March 5, 2024
2. Particle and Astrophysics Seminar, Case Western Reserve University, Cleveland, OH, February 20, 2024
3. Physics Colloquium, University of Massachusetts, Amherst, MA, February 7, 2024
4. Physics Colloquium, University of California, Davis, CA, January 19, 2024
5. Physics Colloquium, Colorado School of Mines, Golden, CO, October 3, 2023
6. Quantum Engineering Seminar, Colorado School of Mines, Golden, CO, October 3, 2023
7. Exploiting Levitated Particles in the Quantum Regime, 794th WE-Heraeus Seminar, Bad Honnef, Germany, September 4, 2023
8. XVIII International Conference on Topics in Astoparticle and Underground Physics (TAUP2023), Vienna, Austria, August 29, 2023
9. Quantum Sensing and Fundamental Physics with Levitated Mechanical Systems, Trento, Italy, July 31, 2023
10. Yale Quantum Institute Colloquium, Yale University, New Haven, CT, May 5, 2023
11. Institute Quantique Colloquium, Universite de Sherbrooke, Sherbrooke, Canada, April 27, 2023
12. RPM Seminar, Lawrence Berkeley National Lab (LBNL), Berkeley, CA, April 13, 2023
13. HEP Seminar, New York University, New York, NY, March 22, 2023
14. Nuclear Science Seminar, Facility for Rare Isotope Beams (FRIB), East Lansing, MI, March 1, 2023
15. Physics Colloquium, University of Texas, Arlington, TX, February 15, 2023
16. LNS Seminar, Massachusetts Institute of Technology, Cambridge, MA, February 7, 2023
17. Physics Colloquium, McGill University, Montreal, Canada, October 20, 2022
18. Particle and Astroparticle Seminar, McGill University, Montreal, Canada, October 19, 2022
19. School on Table-Top Experiments for Fundamental Physics, Perimeter Institute, Waterloo, Canada, September 22, 2022
20. Gordon Research Conference on Photonuclear Reactions, Holderness, NH, August, 11, 2022
21. Quantum Engineering of Levitated Systems 2022, Benasque, Spain, April 26, 2022

22. Nuclear Physics Seminar, University of Kentucky (online), Lexington, KY, April 7, 2022
23. New Methods and Ideas at the Frontiers of Particle Physics, Aspen Center for Physics, Aspen, CO, March 23, 2022
24. APS March Meeting Symposium on Probing New Physics with Optomechanical Systems, Chicago, IL, March 14, 2022
25. Colloquium, Princeton Plasma Physics Laboratory, Princeton, NJ (online), March 2, 2022
26. Optical and Quantum Sensing and Precision Metrology, SPIE Photonics West, San Francisco, CA, January 23, 2022
27. SURF Long-term Vision Workshop (online), Sanford Underground Research Facility (SURF), Lead, SD, September 15, 2021
28. Challenges for Witnessing Quantum Aspects of Gravity in a Lab (online), ICTP-SAIFR, São Paulo, Brazil, June 10, 2021
29. Physics Colloquium, Massachusetts Institute of Technology (online), Cambridge, MA, April 22, 2021
30. SCIPP Seminar, University of California, Santa Cruz (online), Santa Cruz, CA, April 20, 2021
31. British Optomechanical Research Network (BORN) UniKORN Seminar (online), United Kingdom, March 10, 2021
32. Yale Quantum Institute Seminar (online), Yale University, New Haven, CT, December 4, 2020
33. Snowmass Mini Workshop: $0\nu\beta\beta$ Experiment (online), August 5, 2020
34. Group on Precision Measurement & Fundamental Constants Workshop, APS DAMOP (online), June 1, 2020
35. Quantum Information Science for Fundamental Physics, Aspen Center for Physics, Aspen, CO, February 21, 2020
36. West-Lake Photonics Symposium, Photonics Asia, Hangzhou, China, October 20, 2019
37. CoQuS Colloquium, Univesity of Vienna, Vienna, Austria, October 14, 2019
38. Physics Colloquium, University of Albany, Albany, NY, September 27, 2019
39. ITAMP Laboratory Cosmology Workshop, Harvard CfA, Cambridge, MA, September 17, 2019
40. Levitated Optomechanics (699th WE-Heraeus-Seminar), Bad Honnef, Germany, August 1, 2019
41. Indirect Searches for New Physics across the Scales, Mainz Institute for Theoretical Physics (MITP), Mainz, Germany, June 18, 2019
42. First Arizona Workshop on Precision Searches for Fundamental Physics (AZPP2019), Tempe, AZ, February 4, 2019
43. HEP Seminar, Penn State University, State College, PA, October 24, 2018
44. Quantum Engineering of Levitated Systems, Benasque, Spain, September 17, 2018
45. Optical Trapping and Optical Micromanipulation XV, San Diego, CA, August 20, 2018
46. High Energy Physics at the Sensitivity Frontier, Kavli Institute for Theoretical Physics, Santa Barbara, CA, April 3, 2018
47. Physics Colloquium, Amherst College, Amherst, MA, February 6, 2018
48. Physics Colloquium, Yale University, New Haven, CT, January 22, 2018
49. Beyond the Standard Model in Tabletop Experiments, Weizmann Institute, Rehovot, Israel, November 15, 2017
50. APS Division of Nuclear Physics, Pittsburgh, PA, October 28, 2017
51. Neutrino Seminar Series, Fermilab, Batavia, IL, October 19, 2017
52. International Workshop on Baryon & Lepton Number Violation, Case Western Reserve University, Cleveland, OH, May 15, 2017
53. AFCI Seminar, University of Massachusetts, Amherst, MA, April 18, 2017
54. 3IT Seminar, Sherbrooke University, Quebec, Canada, April 7, 2017

55. Particle and Astroparticle Seminar, McGill University, Montreal, Canada, April 6, 2017
56. Particle Physics Seminar, Stony Brook University, Stony Brook, NY, April 3, 2017
57. 52nd Rencontres de Moriond, Electroweak Interactions And Unified Theories, La Thuile, Italy, March 23, 2017
58. KICP Seminar, University of Chicago, Chicago, IL, March 10, 2017
59. Sub-eV Dark Matter Workshop, LBNL, Berkeley, CA, December 9, 2016
60. Workshop on Statistical Issues in Experimental Neutrino Physics, Fermilab, Batavia, IL, September 20, 2016
61. Dark Energy in the Laboratory, Royal Society at Chicheley Hall, Buckinghamshire, UK, April, 22, 2016
62. SLAC Experimental Particle Physics Seminar, Menlo Park, CA, March 17, 2016
63. Physics Colloquium, University of Colorado, Boulder, CO, March 14, 2016
64. Physics Colloquium, University of Alabama, Tuscaloosa, AL, March 2, 2016
65. Nuclear, Particle, and Astrophysics Seminar, Yale University, New Haven, CT, February 25, 2016
66. Nuclear and Particle Physics Colloquium, MIT, Cambridge, MA, February 22, 2016
67. HEP-Astro Seminar, University of Michigan, Ann Arbor, MI, February 1, 2016
68. HEAP Seminar, University of California, Los Angeles, CA, January 28, 2016
69. Physics Colloquium, Virginia Tech, Blacksburg, VA, January 25, 2016
70. High Energy Physics Seminar, Caltech, Pasadena, CA, January 12, 2016
71. Physics Colloquium, New Mexico State University, Las Cruces, NM, November 12, 2015
72. Lee Grodzins Postdoctoral Award Colloquium, MIT, Cambridge, MA, September 14, 2015
73. Workshop on Dark Matter Direct Detection, LBNL, Berkeley, CA, June 9, 2015
74. Physics Colloquium, University of Texas, Austin, TX, February 23, 2015
75. Nuclear, Particle, and Astrophysics Seminar, Yale University, New Haven, CT, February 19, 2015
76. Laboratory for Particle Physics and Cosmology Seminar, Harvard University, Cambridge, MA, February 18, 2015
77. Astronomy and Physics Seminar, University of California, Berkeley, CA, February 12, 2015
78. Center for Particles and Fields Seminar, University of Texas, Austin, TX, January 23, 2015
79. Kavli Institute for Particle Astrophysics and Cosmology Tea Talk, Menlo Park, CA, March 14, 2014
80. Tanaka Dissertation Prize Lecture, APS DPF 2013, Santa Cruz, CA, August 27, 2013
81. Particle Astrophysics Seminar, McGill University, Montreal, Canada, March 28, 2012
82. HEPL Seminar, Stanford University, Stanford, CA, March 21, 2012
83. Observational Cosmology Seminar, Caltech, Pasadena, CA, June 2, 2011
84. Aspen Winter Conference on Indirect and Direct Detection of Dark Matter, Aspen, CO, February 10, 2011
85. Fermilab Particle Astrophysics Seminar, Batavia, IL, February 21, 2011
86. Observational Cosmology Seminar, Caltech, Pasadena, CA, February 3, 2011
87. Physics of the Universe Summit 2011, Hawthorne, CA, January 8, 2011
88. High Energy Physics Seminar, Caltech, Pasadena, CA, February 8, 2010

Other conference presentations:

1. CPAD Workshop, Stony Brook University, Stony Brook, NY, November 29, 2022
2. New Technologies for Discovery IV: The CPAD Instrumentation Frontier Workshop, Providence, RI, December 12, 2018
3. 28th Texas Symposium on Relativistic Astrophysics, Geneva, Switzerland, December 14, 2015

4. 20th Particles and Nuclei International Conference, Hamburg, Germany, August 23, 2014
5. 24th Workshop on Weak Interactions and Neutrinos, Natal, Brazil, September 19, 2013
6. Low Temperature Detectors 14, Heidelberg, Germany, August 4, 2011
7. 4th Workshop on the Physics and Applications of Superconducting Microresonators, Grenoble, France, July 29, 2011
8. APS April Meeting, Anaheim, CA, May 2, 2011
9. APS April Meeting, Washington, DC, February 13, 2010
10. 3rd Workshop on the Physics and Applications of Superconducting Microresonators, Santa Barbara, CA, January 22, 2010
11. Low Temperature Detectors 13 (poster), Stanford, CA, July 23, 2009
12. 24th International Symposium on Lattice Field Theory (poster), Tucson, AZ, July 25, 2006

# Publications

**Selected publications**:

1. Jiaxiang Wang, T. W. Penny, Juan Recoaro, Benjamin Siegel, Yu-Han Tseng, David C. Moore, "Mechanical detection of nuclear decays," Phys. Rev. Lett. *in press* (2024), arXiv:2402.13257 (*PRL Editor's suggestion*).
2. D. Carney, K. Leach, and D.C. Moore, "Searches for massive neutrinos with mechanical quantum sensors," PRX Quantum 4, 010315 (2023), arXiv:2207.05883 (*PRX Q Editor's suggestion*).
3. S. Al Kharusi et al., "Search for MeV Electron Recoils from Dark Matter in EXO-200," Phys. Rev. D, 107, 012007 (2023), arXiv:2207.00897.
4. D.S. Barker et al., "Collision-resolved pressure sensing," arXiv:2303.09922 (2023).
5. G. Gallina et al., "Performance of novel VUV-sensitive Silicon Photo-Multipliers for nEXO," Eur. Phys. J. C 82, 1125 (2022), arXiv:2209.07765.
6. 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.
7. 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*).
8. 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.
9. 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.
10. 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.
11. 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*).
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. D. Carney et al., "Mechanical quantum sensing in the search for dark matter," Quantum Sci. Technol. 6 024002 (2021) arXiv:2008.06074.
14. D.C. Moore and A.A. Geraci, "Searching for new physics using optically levitated sensors," Quantum Sci. Technol. 6 014008 (2021) arXiv:2008.13197.
15. F. Monteiro et al., "Search for composite dark matter with optically levitated sensors," Phys. Rev. Lett. 125, 181102 (2020) arXiv:2007.12067.

16. 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*).
17. 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.
18. Z. Li et al., "Simulation of charge readout with segmented tiles in nEXO," JINST 14 P09020 (2019), arXiv:1907.07512.
19. 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*)
20. C. Chambers et al., "Imaging individual barium atoms in solid xenon for barium tagging in nEXO," Nature 569, 203 (2019), arXiv:1806.10694.
21. 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*).
22. 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.
23. S. Al Kharusi et al., "nEXO Pre-Conceptual Design Report," arXiv:1805.11142 (2018).
24. 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"*).
25. 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.
26. 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.
27. 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"*).
28. J.B. Albert et al., "Search for Majorana neutrinos with the first two years of EXO-200 data," Nature 510, 229 (2014), arXiv:14
29. 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.
30. 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*).
31. 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.
32. Z. Ahmed et al., "Dark matter search results from the CDMS II experiment," Science 327, 1619 (2010), arXiv:0912.3592.

**All publications**:

1. Jiaxiang Wang, T. W. Penny, Juan Recoaro, Benjamin Siegel, Yu-Han Tseng, David C. Moore, "Mechanical detection of nuclear decays," Phys. Rev. Lett. *in press* (2024), arXiv:2402.13257 (*PRL Editor's suggestion*).
2. A. Chou et al., "Quantum Sensors for High Energy Physics," arXiv:2311.01930 (2023).
3. R.H.M. Tsang et al. (nEXO), "An integrated online radioassay data storage and analytics tool for nEXO," Nucl. Instrum. Meth. Phys. Res. A 1055, 168477 (2023), arXiv:2304.06180.
4. S. Li et al. (EXO-200), "Generative adversarial networks for scintillation signal simulation in EXO-200," JINST 18 P06005 (2023), arXiv:2303.06311.
5. B. Acharya et al., "Fundamental Symmetries, Neutrons, and Neutrinos (FSNN): Whitepaper for the 2023 NSAC Long Range Plan," arXiv:2304.03451 (2023).
6. D.S. Barker et al., "Collision-resolved pressure sensing," arXiv:2303.09922 (2023).

7. S. Al Kharusi et al. (EXO-200), "Search for Two-neutrino Double-Beta Decay of $^{136}$Xe to the $0^+$ excited state of $^{136}$Ba with the Complete EXO-200 Dataset," Chinese Phys. C 47 103001 (2023), arXiv:2303.01103.
8. M. Brodeur et al., "Nuclear $\beta$ decay as a probe for physics beyond the Standard Model," arXiv:2301.03975 (2023).
9. R. Kaltenbaek et al., "Research campaign: Macroscopic quantum resonators (MAQRO)," Quantum Sci. Technol. 8 014006 (2023), arXiv:2202.01535.
10. C. Adams et al., "Neutrinoless Double Beta Decay," arXiv:2212.11099 (2022).
11. B.G. Lenardo et al. (nEXO), "Development of a 127Xe calibration source for nEXO," JINST 17 P07028 (2022), arXiv:2201.04681.
12. D. Carney, K. Leach, and D.C. Moore, "Searches for massive neutrinos with mechanical quantum sensors," PRX Quantum 4, 010315 (2023), arXiv:2207.05883 (*PRX Q Editor's suggestion*).
13. S. Al Kharusi et al., "Search for MeV Electron Recoils from Dark Matter in EXO-200," Phys. Rev. D, 107, 012007 (2023), arXiv:2207.00897.
14. G. Gallina et al., "Performance of novel VUV-sensitive Silicon Photo-Multipliers for nEXO," Eur. Phys. J. C 82, 1125 (2022), arXiv:2209.07765.
15. 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.
16. 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*).
17. N. Ackerman et al., "The EXO-200 detector, part II: Auxiliary systems," JINST 17 P02015 (2022), arXiv:2107.06007.
18. 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.
19. 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.
20. 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.
21. M. Wagenpfeil et al., "Reflectivity of VUV-sensitive Silicon Photomultipliers in Liquid Xenon," JINST 16 P08002 (2021), arXiv:2104.07997.
22. 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*).
23. D. Carney et al., "Mechanical quantum sensing in the search for dark matter," Quantum Sci. Technol. 6 024002 (2021) arXiv:2008.06074.
24. D.C. Moore and A.A. Geraci, "Searching for new physics using optically levitated sensors," Quantum Sci. Technol. 6 014008 (2021) arXiv:2008.13197.
25. G. Afek et al., "Limits on the abundance of millicharged particles bound to matter," Phys. Rev. D 104, 012004 (2021) arXiv:2012.08169.
26. P. Lv et al., "Reflectance of Silicon Photomultipliers at Vacuum Ultraviolet Wavelengths," IEEE Trans. Nucl. Sci. 67, 2501 (2020), arXiv:1912.01841.
27. F. Monteiro et al., "Search for composite dark matter with optically levitated sensors," Phys. Rev. Lett. 125, 181102 (2020) arXiv:2007.12067.
28. 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.
29. 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.

30. 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*).
31. S. Al Kharusi et al., "Measurement of the Spectral Shape of the $\beta$-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.
32. 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.
33. P. Nakarmi et al., "Reflectivity and PDE of VUV4 Hamamatsu SiPMs in liquid xenon," JINST 15 P01019 (2020), arXiv:1910.06438.
34. G. Gallina et al., "Characterization of the Hamamatsu VUV4 MPPCs for nEXO," Nucl. Instrum. Meth. Phys. Res. A, 940, 371 (2019), arXiv:1903.03663.
35. 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).
36. Z. Li et al., "Simulation of charge readout with segmented tiles in nEXO," JINST 14 P09020 (2019), arXiv:1907.07512.
37. 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*)
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39. X.L. Sun et al., "Study of silicon photomultiplier performance in external electric fields," JINST 13 T09006 (2018), arXiv:1807.03007.
40. 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.
41. 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.
42. S. Al Kharusi et al., "nEXO Pre-Conceptual Design Report," arXiv:1805.11142 (2018).
43. S. Delaquis et al., "Deep neural networks for energy and position reconstruction in EXO-200," JINST 13, P08023 (2018), arXiv:1804.09641.
44. 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.
45. 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.
46. 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.
47. M. Jewell et al., "Characterization of an Ionization Readout Tile for nEXO," JINST 13 P01006 (2018), arXiv:1710.05109.
48. 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.
49. J.B Albert et al., "Search for nucleon decays with EXO-200" Phys. Rev. D 97, 072007 (2018), arXiv:1710.07670.
50. 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.
51. 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.
52. 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.
53. 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.

54. 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.
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