

教 員 選 考 調 書

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学術論文（査読有）（氏名記載方法は論文記載の通り）

- [1] XENON Collaboration: E. Aprile ... K. Miuchi (176 人中 106 番目), *XENONnT WIMP search: Signal and background modeling and statistical inference*, Phys. Rev. D, 111 (2025), 103040
- [2] XENON Collaboration: E. Aprile ... K. Miuchi (170 人中 103 番目), *The neutron veto of the XENONnT experiment: Results with demineralized water*, The Eur. Phys. J. C, 85 (2025), 695
- [3] XENON Collaboration: E. Aprile ... K. Miuchi (176 人中 106 番目), *XENONnT analysis: Signal reconstruction, calibration, and event selection*, Phys. Rev. D, 111 (2025), 062006
- [4] XENON Collaboration: E. Aprile ... K. Miuchi (176 人中 106 番目), *First Search for Light Dark Matter in the Neutrino Fog with XENONnT*, Phys. Rev. Lett., 134 (2025), 111802
- [5] Ryota Namai, Satoshi Higashino, Hirohisa Ishiura, Tomonori Ikeda, Mizuno Ofuji, Ayaka Nakayama, Ryo Kubota, Kiseki D. Nakamura, Hiroshi Ito, Koichi Ichimura, Ko Abe, Kazuyoshi Kobayashi, Atsushi Takada, Kentaro Miuchi, *Development of a low-background micro-pixel chamber for directional dark matter searches*, Nucl. Instrum. Methods Phys. Res. A, 1072 (2025), 170145
- [6] XENON Collaboration: E. Aprile ... K. Miuchi (172 人中 105 番目), *First Indication of Solar B-8 Neutrinos via Coherent Elastic Neutrino-Nucleus Scattering with XENONnT*, Phys. Rev. Lett., 133 (2024), 191002
- [7] XENON Collaboration: E. Aprile ... K. Miuchi (194 人中 118 番目), *The XENONnT dark matter experiment*, The Eur. Phys. J. C, 84 (2024), 784
- [8] XENON Collaboration: E. Aprile ... K. Miuchi (163 人中 97 番目), *Design and performance of the field cage for the XENONnT experiment*, The Eur. Phys. J. C, 84 (2024), 138
- [9] XENON Collaboration: E. Aprile ... K. Miuchi (179 人中 109 番目), *Detector signal characterization with a Bayesian network in XENONnT*, Phys. Rev. D, 108 (2023), 012016
- [10] Tomohiko Oka, Shingo Ogio, Mitsuru Abe, Kenji Hamaguchi, Tomonori Ikeda, Hidetoshi Kubo, Shunsuke Kurosawa, Kentaro Miuchi, Yoshitaka Mizumura, Yuta Nakamura, *High-energy extension of the gamma-ray band observable with an electron-tracking Compton camera*, Nucl. Instrum. Methods Phys. Res. A, 1063 (2024), 169242
- [11] DARWIN Collaboration: M. Adrover ... K. Miuchi (181 人中 104 番目), *Cosmogenic background simulations for neutrinoless double beta decay with the DARWIN observatory at various underground sites*, The Eur. Phys. J. C, 84 (2024), 88
- [12] Kentaro Miuchi, *Challenges for the directional dark matter direct detection*, Journal of Advanced Instrumentation in Science (JAIS), 2024 (2024), 473
- [13] XMASS Collaboration: K. Abe ... K. Miuchi (32 人中 20 番目), *Direct dark matter searches with the full data set of XMASS-I*, Phys. Rev. D, 108 (2023), 083022
- [14] XENON collaboration: E. Aprile ... K. Miuchi (164 人中 101 番目), *The triggerless data acquisition system of the XENONnT experiment*, J. Instrum., 18 (2023), P07054
- [15] Hiroshi Ogawa, Kenta Iyoki, Minoru Matsukura, Toru Wakihara, Ko Abe, Kentaro Miuchi, Saori Umehara, *Measurement of radon emanation and impurity adsorption from argon gas using ultralow radioactive zeolite*, J. Instrum., 19 (2024), P02004

- [16] Takuya Shimada, Tomonori Ikeda, Satoshi Higashino, Kiseki Nakamura, Ryota Yakabe, Takashi Hashimoto, Hirohisa Ishiura, Takuma Nakamura, Miki Nakazawa, Ryo Kubota, Ayaka Nakayama, Hiroshi Ito, Koichi Ichimura, Ko Abe, Kazuyoshi Kobayashi, Toru Tanimori, Hidetoshi Kubo, Atsushi Takada, Hiroyuki Sekiya, Atsushi Takeda, Kentaro Miuchi, *Direction-sensitive dark matter search with three-dimensional vector-type tracking in NEWAGE*, Prog. Theor. Exp. Phys., 2023 (2023), ptad120
- [17] XENON collaboration: E. Aprile ... K. Miuchi (178 人中 109 番目), *First Dark Matter Search with Nuclear Recoils from the XENONnT Experiment*, Phys. Rev. Lett., 131 (2023), 041003
- [18] XENON Collaboration: E. Aprile ... K. Miuchi (178 人中 109 番目), *Searching for Heavy Dark Matter near the Planck Mass with XENON1T*, Phys. Rev. Lett., 130 (2023), 261002
- [19] XENON collaboration: E. Aprile ... K. Miuchi (164 人中 96 番目), *Low-energy calibration of XENON1T with an internal ^{37}Ar source*, The Eur. Phys. J. C, 83 (2023), 542
- [20] Keiko I. Nagao, Satoshi Higashino, Tatsuhiro Naka, Kentaro Miuchi, *Directional direct detection of light dark matter up-scattered by cosmic-rays from direction of the Galactic center*, J. Cosmol. Astropart. Phys., 07 (2023), 061
- [21] Satoshi Higashino, Tomonori Ikeda, Ayaka Nakayama, Mizuno Ofuji, and Kentaro Miuchi, *Development of negative-ion gaseous TPC using micro pattern readout for direction-sensitive dark matter search*, J. Instrum., 18 (2023), C06012
- [22] XENON collaboration: E. Aprile ... K. Miuchi (171 人中 100 番目), *Search for New Physics in Electronic Recoil Data from XENONnT*, Phys. Rev. Lett., 129 (2022), 161805
- [23] Tomonori Ikeda, Asuka Ito, Kentaro Miuchi, Jiro Soda, Hisaya Kurashige, and Yutaka Shikano, *Axion search with quantum nondemolition detection of magnons*, Phys. Rev. D, 105 (2022), 102004
- [24] XENON collaboration: E. Aprile ... K. Miuchi (154 人中 89 番目), *Material radiopurity control in the XENONnT experiment*, The Eur. Phys. J. C, 82 (2022), 599
- [25] Y. Kotsar, Y. Nakano, Y. Takeuchi, K. Miuchi, *Evaluation of radon adsorption efficiency of activated carbon fiber using tetrafluoromethane*, Prog. Theor. Exp. Phys., 2021 (2021), ptac005
- [26] Keita Mizukoshi, Takeshi Maeda, Yuuki Nakano, Satoshi Higashino, Kentaro Miuchi, *Scintillation light increase of carbontetrafluoride gas at low temperature*, J. Instrum., 16 (2021), P12033
- [27] Tomonori Ikeda, Kiseki Nakamura, Takuya Shimada, Ryota Yakabe, Takashi Hashimoto, Hirohisa Ishiura, Takuma Nakamura, Hiroshi Ito, Koichi Ichimura, Ko Abe, Kazuyoshi Kobayashi, Toru Tanimori, Hidetoshi Kubo, Atsushi Takada, Hiroyuki Sekiya, Atsushi Takeda, and Kentaro Miuchi, *Direction-sensitive dark matter search with a low-background gaseous detector NEWAGE-0.3b*, Prog. Theor. Exp. Phys., 2021 (2021), 063F01
- [28] R.R. Marcelo Gregorio, N.J.C. Spooner, J. Berry, A. C. Ezeribe, K. Miuchi, H. Ogawa, A. Scarff, *Test of low radioactive molecular sieves for radon filtration in SF_6 gas-based rare-event physics experiments*, J. Instrum., 16 (2021), P06024
- [29] Kiseki D Nakamura, Kentaro Miuchi, Shingo Kazama, Yutaro Shoji, Masahiro Ibe, Wakutaka Nakano, *Detection capability of Migdal effect for argon and xenon nuclei with position sensitive gaseous detectors*, Prog. Theor. Exp. Phys., 2020 (2020), ptaa162

- [30] XMASS Collaboration: K. Abe... K. Miuchi (37 人中 27 番目), *Search for exotic neutrino-electron interactions using solar neutrinos in XMASS-I*, Phys. Lett. B, 809 (2020), 135741
- [31] Ryota Yakabe, Kiseki Nakamura, Tomonori Ikeda, Hiroshi Ito, Yushiro Yamaguchi, Ryosuke Taishaku, Miki Nakazawa, Hirohisa Ishiura, Takuma Nakamura, Takuya Shimada, Toru Tanimori, Hidetoshi Kubo, Atsushi Takada, Hiroyuki Sekiya, Atsushi Takeda, Kentaro Miuchi, *First limits from a 3d-vector directional dark matter search with the NEWAGE-0.3b' detector*, Prog. Theor. Exp. Phys., 2020 (2020), ptaa147
- [32] T. Kishishita, S. Sumomozawa, T. Kosaka, T. Igarashi, K. Sakashita, M. Shoji, M.M. Tanaka, T. Hasegawa, K. Negishi, S. Narita, T. Nakamura and K. Miuchi, *LTARS: analog readout front-end ASIC for versatile TPC-application*, J. Instrum., 15 (2020), T09009
- [33] XMASS Collaboration: K. Abe... K. Miuchi (36 人中 29 番目), *Development of low-background photomultiplier tubes for liquid xenon detectors*, J. Instrum., 15 (2020), P09027
- [34] XENON Collaboration: E. Aprile ... K. Miuchi (138 人中 81 番目), *Projected WIMP Sensitivity of the XENONnT Dark Matter Experiment*, J. Cosmol. Astropart. Phys., 11 (2020), 031
- [35] Takashi Hashimoto, Kentaro Miuchi, Tomonori Ikeda, Hirohisa Ishiura, Kiseki D. Nakamura, Hiroshi Ito, Koichi Ichimura, Ko Abe, Kazuyoshi Kobayashi, Atsushi Takada, Atsuhiko Ochi, Takuma Nakamura, Takuya Shimada, *Development of a low- α -emitting μ -PIC as a readout device for direction-sensitive dark matter detectors*, Nucl. Instrum. Methods Phys. Res. A, 977 (2020), 164285
- [36] T. Ikeda, T. Shimada, H. Ishiura, K. D. Nakamura, T. Nakamura, K. Miuchi, *Development of a Negative Ion Micro TPC Detector with SF₆ Gas for the Directional Dark Matter Search*, J. Instrum., 15 (2020), P07015
- [37] A. Ito, T. Ikeda, K. Miuchi, J. Soda, *Probing GHz gravitational waves with graviton-magnon resonance*, The Eur. Phys. J. C, 80 (2020), 3
- [38] Keiko I. Nagao, Tomonori Ikeda, Ryota Yakabe, Tatsuhiko Naka, Kentaro Miuchi, *Discrimination of anisotropy in dark matter velocity distribution with directional detectors*, Phys. Dark Universe, 27 (2020), 100426
- [39] Yuji Kishimoto, Shinichi Sasaki, Kazutoshi Takahashi, Kazuhiro Terasawa, Kentaro Miuchi, Masato Katsuta, Aiko Nagamatsu, Tetsuhito Fuse, Kunishiro Mori, Hisashi Kitamura, *Detector Performance of the Position-sensitive Tissue-equivalent Proportional Chamber for Space Dosimetry onboard the International Space Station*, Jpn. J. Appl. Phys., 59 (2020), 016003
- [40] H. Ito, T. Hashimoto, K. Miuchi, K. Kobayashi, Y. Takeuchi, K. D. Nakamura, T. Ikeda, and H. Ishiura, *Development of an alpha-particle imaging detector based on a low radioactive micro-time-projection chamber*, Nucl. Instrum. Methods Phys. Res. A, 953 (2020), 163050
- [41] Kentaro Miuchi, Tomonori Ikeda, Hirohisa Ishiura, Kiseki D. Nakamura, Atsushi Takada, Yasuhiro Homma, Ko Abe, Koichi Ichimura, Hiroshi Ito, Kazuyoshi Kobayashi, Takuma Nakamura, Ryuichi Ueno, Takuya Shimada, Takashi Hashimoto, Ryota Yakabe, Atsuhiko Ochi, *Development of a time projection chamber with a sheet-resistor field cage*, Progr. Theor. Exp. Phys., 2019 (2019), 063H01

- [42] Yoshiyuki Onuki, Johnny Alejandro, Mora Grimaldob, Tatsuki Ose, Hiroaki Aihara, Yoshizumi Inoue, Yoshio Kamiya, Kenji Shimazoe, Takeshi Go Tsuru, Takaaki Tanaka, Kentaro Miuchi, Ayaki Takeda, Yasuo Arai, *Studies of radioactive background in SOI pixel detector for solar axion search experiment*, Nucl. Instrum. Methods Phys. Res. A, 924 (2019), 448
- [43] Miki Nakazawa, Tetsuichi Kishishita, Masayoshi Shoji, Ken Sakashita, Tomonori Ikeda, Hirohisa Ishiura, James B. R. Battat, Catherine Nicoloff, Manobu M. Tanaka, Takuya Hasegawa, Kentaro Miuchi, *Prototype Analog Front-end for Negative-ion Gas and Dual-phase Liquid-Ar TPCs*, J. Instrum., 14 (2019), T01008
- [44] Keita Mizukoshi, Ryosuke Taishaku, Keishi Hosokawa, Kazuyoshi Kobayashi, Kentaro Miuchi, Tatsuhiro Naka, Atsushi Takeda, Masashi Tanaka, Yoshiki Wada, Kohei Yorita, Sei Yoshida *Measurement of ambient neutrons in an underground laboratory at Kamioka Observatory*, Prog. Theor. Exp. Phys., 2018 (2018), 123C01
- [45] XMASS Collaboration: K. Abe ...K. Miuchi (41 人中 32 番目), *A direct dark matter search in XMASS-I*, Phys. Lett. B, 789 (2019), 45
- [46] XMASS Collaboration N. Oka ...K. Miuchi (41 人中 33 番目), *Search for solar Kaluza-Klein axions by annual modulation with the XMASS-I detector*, Prog. Theor. Exp. Phys., 2017 (2017), ptx137
- [47] J.B.R. Battat, I.G. Irastorza, ... K. Miuchi (93 名中 57 番目), *Readout technologies for directional WIMP Dark Matter detection*, Phys. Rep., 662 (2016), 1
- [48] XMASS Collaboration: K. Abe... K. Miuchi (40 名中 26 番目), *Direct dark matter search by annual modulation in XMASS-I*, Phys. Lett. B, 759 (2016), 272
- [49] XMASS Collaboration: K. Abe... K. Miuchi (48 名中 26 番目), *XMASS detector*, Nucl. Instrum. Methods Phys. Res. A, 716 (2012), 78
- [50] Kentaro Miuchi, Hironobu Nishimura, Kaori Hattori, Naoki Higashi, Chihiro Ida, Satoshi Iwaki, Shigeto Kabuki, Hidetoshi Kubo, Shunsuke Kurosawa, Kiseki Nakamura, Joseph Parker, Tatsuya Sawano, Michiaki Takahashi, Toru Tanimori, Kojiro Taniue, Kazuki Ueno, Hiroyuki Sekiya, Atsushi Takeda, Ken'ichi Tsuchiya, Atsushi Takada, *First underground results with NEWAGE-0.3a direction-sensitive dark matter detector*, Phys. Lett. B, 686 (2010), 11
- [51] S. Ahlen... K. Miuchi (112 名中 62 番目), *THE CASE FOR A DIRECTIONAL DARK MATTER DETECTOR AND THE STATUS OF CURRENT EXPERIMENTAL EFFORTS*, Int. J. Mod. Phys. A, 25 (2010), 1
- [52] Kentaro Miuchi, Kaori Hattori, Shigeto Kabuki, Hidetoshi Kubo, Shunsuke Kurosawa, Hironobu Nishimura, Yoko Okada, Atsushi Takada, Toru Tanimori, Ken'ichi Tsuchiya, Kazuki Ueno, Hiroyuki Sekiya, Atsushi Takeda, *Direction-sensitive dark matter search results in a surface laboratory*, Phys. Lett. B, 654 (2007), 58
- [53] Toru Tanimori, Hidetoshi Kubo, Kentaro Miuchi (corresponding author), Tsutomu Nagayoshi, Reiko Orito, Atsushi Takada, Atsushi Takeda, *Detecting the WIMP-wind via spin-dependent interactions*, Phys. Lett. B, 578 (2004), 241
- [54] K. Miuchi, M. Minowa, A. Takeda, H. Sekiya, Y. Shimizu, Y. Inoue, W. Ootani, and Y. Ootuka, *First results from dark matter search experiment with LiF bolometer at Kamioka Underground*

Laboratory, Astropart. Phys., 19 (2002), 135

他 105 編

著書

- [55] 「宇宙物理学ハンドブック」, 2020 年 2 月 (朝倉書店 ISBN978-4-254-13127-7),
5.6.1 暗黒物質直接探査 の項担当 (p762-767)

解説記事

- [56] 身内賢太朗, 濱口幸一, 宇宙のダークマター直接探索の現状, 日本物理学会誌, 第 75 巻 (2020 年) 第 2 号, 68-76 頁

他 7 編

査読無論文(プロシーディングス)

- [57] K. Miuchi, R. Yakabe, T. Hashimoto, T. Ikeda, R. Taishaku, M. Nakazawa, Y. Yamaguchi, T. Inada, K. Nakamura, T. Tanimori, H. Kubo, A. Takada, H. Sekiya and A. Takeda, *NEWAGE: direction-sensitive direct dark matter search*, Proceedings of Science, (ICHEP2016)215
38th International Conference on High Energy Physics 3-10 August 2016 Chicago, USA

他 16 編