

# Yue Zhao

Physics & Astronomy Department

University of Utah

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## PROFESSIONAL POSITIONS

- **2018-present**, Assistant Professor, University of Utah
- **2015-2018**, Postdoc, MCTP, University of Michigan
- **2012-2015**, Research Associate, SITP/SLAC, Stanford University
- **2009-2012**, Graduate Assistant, Department of Physics, Rutgers University
- **2007-2008** Teaching Assistant, Department of Physics and Astronomy, Rutgers University

## PROFESSIONAL MEMBERSHIP

- **2019-present**, LIGO Scientific Collaboration, PI of the Utah-LIGO Group

## EDUCATION

- **Ph.D. in High Energy Physics**  
Department of Physics, Rutgers University, 2012  
Advisor: Scott Thomas
- **B.S. in Physics**  
Department of Physics, Peking University, Beijing, China, 2007

## INSPIRES:

- <http://inspirehep.net/author/profile/Yue.Zhao.1>

## RESEARCH INTERESTS

- Dark Matter Searches
- High Energy Phenomenology and Model Building
- Gravitational Wave
- AdS/CFT and its Applications

## TEACHING EXPERIENCE

- Courses: 7220 Quantum mechanics I (3 times)  
5450 Introduction to Quantum Mechanics (twice)  
3740 Introduction to Relativity and Quantum Mechanics (once)  
2710 Phys III-Modern Physics (once)  
ACCESS summer program
- Teaching Assistant at Rutgers University, 2007-2008

## GRANT

- **The Gordon and Betty Moore Foundation Fundamental Physics Innovation Awards (Visitor Award), APS**  
\$8K, 2021, The Gordon and Betty Moore Foundation & APS
- **DOE**  
FY 2019 Research Opportunities in High Energy Physics  
*Novel strategies to identify dark matter and new physics beyond the Standard Model*  
\$102K, 2019-2020, Department of Energy  
\$102K, 2020-2021, Department of Energy  
\$112K, 2021-2022, Department of Energy  
  
FY 2022 Research Opportunities in High Energy Physics  
*DESI Experimental Studies and Novel Searches For New Physics at the University of Utah*  
\$110K, 2022-2023, Department of Energy  
\$120K, 2023-2024, Department of Energy  
\$130K, 2024-2025, Department of Energy
- **Research Incentive Seed Grant**  
*Using Gravitational Wave Detector to Look for Dark Photon Dark Matter*  
\$20K, 2019-2020, University of Utah

## ACADEMIC HONORS

- **The Gordon and Betty Moore Foundation Fundamental Physics Innovation Awards (Visitor Award), APS**
- **DOE fellowship**, Rutgers University, 2010 - 2012
- **Innovation Award**, Peking University, 2007

- **Outstanding Undergraduate Research Paper**, Peking University, 2007
- **Research Scholarship from President Foundation**, Peking University, 2007
- **Research Scholarship from President Foundation**, Peking University, 2006

## POSTDOCS & STUDENTS

- **Current Postdoc:** *Ben Sheff, Natalia Tapia Arellano*
- **Former Postdoc:** *Bartosz Fornal (Faculty @ Barry University)*  
*Huaike Guo (Faculty @ ICTP-AP)*
- **Ph.D. Student:** *Samuel Liebersbach (Ph.D. @ University of Utah)*  
*Fengwei Yang (postdoc @ University of Florida)*
- **Master Student:** *Chonghuan Li (industry)*
- **Undergraduate Student:** *Maria Stokes (intern @ American Institute of Physics)*  
*Hoang Nguyen Long (industry)*  
*Grace Bramlage (B.S. @ University of Utah)*  
*Bella Coronado (B.S. @ University of Utah)*  
*Isaac Martin (Ph.D. @ UT-Austin)*  
*Abel Shiferaw (REU student, Ph.D, @ UC Berkeley)*

## PROFESSIONAL SERVICE

### Departmental Services

- **Theory (HET/CMT) Faculty Search Committee, 2021-2022**
- **High Energy Theory Faculty Search Committee, 2019-2020**
- **Multi-Messenger Astronomy Faculty Search Committee, 2019-2020**
- **Graduate Admissions and Recruitment, 2019, 2020, 2022**
- **Graduate Comprehensive Exam Committee 2021, 2022**
- **Department colloquium committee, 2019, 2021**
- **Departmental Future's Committee, 2021**
- **Committee to initiate the PANDA Network, 2022**
- **Contribute to the undergraduate curriculum reform, 2022**
- **Master of Science for Secondary School Teachers program**  
Graduate committee, 2018
- **HEAP seminar committee**  
Chair, 2021; Member, 2022
- **Gravitational Wave Journal Club**

Organizer, 2020

- **HEP & Cosmic Ray Journal Club**

Organizer, 2019

- **Searching for new physics - Leaving no stone unturned!**

Workshop Organizer, University of Utah, Aug. 4-10, 2019

### College Services

- **ACCESS program**

Instructor, 2021

ACCESS Scholars Selection Committee, 2023

ACCESS Liaison, the Department of Physics and Astronomy, 2023-2024

- **College of Science Council**

Representative, the Department of Physics and Astronomy, 2023

- **College of Science Seed Grant Panel, University of Utah**

Panelist, 2020

- **EDGES fellowship program**

Reviewer, 2020

### External Services

- **DOE grant review**

Panelist

- **Utah-LIGO group**

PI of the group, 2019-present

- **Local Organizing Committee for NuFACT2022**

Co-Chair, 2022

- **Journal Referee**

Journal of High Energy Physics, Modern Physics Letters A, Nuclear Physics B, International Journal of Modern Physics A, Journal of Cosmology and Astroparticle Physics, Annals of Physics, Chinese Physics C/Letter, The European Physical Journal C

- **Dark Odyssey 2020: Gravitational-Wave Probes of Dark Universe**

International Organizer, Seoul National University, Korea, Jan. 4-7, 2020

- **DM: WIMP and beyond**

Workshop Organizer, T. D. Lee Institute, May 17-18, 2017

- **Beyond the Standard Model Workshop**

Workshop Organizer, MCTP, October 10 - 12, 2016

- **Brown Bag Seminars at MCTP**

Seminar Organizer, MCTP, since Jan. 2016

## INVITED TALKS

- **Stringent axion constraints with EHT polarimetric measurements of M87★**  
*LCTP Symposium on Astrophysical Signatures of Dark Matter, University of Michigan, 2023*
- **Searching for ultralight dark matter candidates at the precision frontier**  
*Symposium on Illuminating Dark Matter, Simons Foundation, Germany, 2023*
- **Stringent axion constraints with EHT polarimetric measurements of M87★**  
*distinguished Lecture, International Congress of Basic Science, 2023*
- **Probing Axions with Event Horizon Telescope Polarimetric Measurements**  
*theory seminar, University of Minnesota, 2023*
- **Probing Axions with Event Horizon Telescope Polarimetric Measurements**  
*theory seminar, University of Florida, 2022*
- **Searching for ultralight dark matter candidates at the precision frontier**  
*theory seminar, Southern University of Science and Technology, 2022*
- **Astrophysical Probes to New Physics Beyond the Standard Model**  
*theory seminar, University of Chongqing, 2022*
- **Searching for ultralight dark matter candidates at the precision frontier**  
*Summer school for New Physics and Dark Matter, Nanjing Normal University, 2022*
- **Stringent axion constraints with EHT polarimetric measurements of M87★**  
*theory seminar at the astro group meeting, MIT, 2021*
- **Probing Axions with Event Horizon Telescope Polarimetric Measurements**  
*theory seminar, Texas A&M University, 2021*
- **Astrophysical Probes to New Physics Beyond the Standard Model**  
*Colloquium, Brigham Young University, 2021*
- **Astrophysical Probes to New Physics Beyond the Standard Model**  
*Colloquium, Syracuse university, 2021*
- **Astrophysical Probes to New Physics Beyond the Standard Model**  
*Colloquium, Nanjing University, 2020*
- **Searching for axion-like particles using black holes and pulsars**  
*theory seminar, Tsinghua University, 2020*
- **Probing Axions with Event Horizon Telescope Polarimetric Measurements**  
*theory seminar, Shanghai Astronomical Observatory, 2020*
- **Exotic Searches at LXe Experiments**  
*DM detection and neutrino physics with LXe experiment workshop, China, 2020*

- **Producing and detecting long-lived particles at different experiments at the LHC**  
*The 7th LHC LLP Community workshop, CERN (virtual), 2020*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*Plenary Talk, XIV International Particle Physics and Cosmology Conference, US, 2020*
- **Searching for axion-like particles using black holes and pulsars**  
*theory seminar, University of Oregon, 2020*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*Dark Odyssey 2020: Gravitational-Wave Probes of Dark Universe, SNU, Korea, 2020*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*theory seminar, Arizona State University, 2019*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*Plenary Talk, DM@LHC2019, Seattle, Washington, U.S., 2019*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*Plenary Talk, FLASY2019, Shanghai, China, 2019*
- **Searching for axion-like particles using black holes and pulsars**  
*theory seminar, Fudan University, 2019*
- **Searching for axion-like particles using black holes and pulsars**  
*theory seminar, Zhejiang University, 2019*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*Searching for New Physics on the Horizon, New Physics @ Korea Institute, 2019*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*BSM - Weak Scale, MIAPP, Munich, Germany, 2019*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*theory seminar, Peking University, 2019*
- **Searching for axion-like particles using black holes and pulsars**  
*theory seminar, Institute of High Energy Physics-CAS, 2019*
- **Searching for Dark Photon DM with GW Detectors, O1 and beyond**  
*theory seminar, LBNL, 2019*
- **Searching for Dark Photon Dark Matter with Gravitational Wave Detectors**  
*PITT PACC Workshop: BSM circa 2020, University of Pittsburg, 2019*
- **Searching for Dark Photon Dark Matter with Gravitational Wave Detectors**  
*TRIUMF Theory Workshop on Dark Matter Signals, TRIUMF, 2019*
- **Searching for Dark Photon Dark Matter with Gravitational Wave Detectors**  
*theory seminar, Harvard University, 2018*

- **Searching for Confining Hidden Valleys at the LHC(b)**  
*theory seminar, Nanjing University, China, 2018*
- **Searching for Dark Photon Dark Matter with Gravitational Wave Detectors**  
*theory seminar, Institute of High Energy Physics, China, 2018*
- **Searching for Dark Photon Dark Matter with Gravitational Wave Detectors**  
*International Workshop on "Physics Beyond the Standard Model", T.D.L. Institute, 2018*
- **Dark Matter Beyond Weakly Interacting Massive Particles**  
*Colloquium, University of Utah, 2018*
- **Searching for Confining Hidden Valleys at the LHC(b)**  
*Scalars 2017, Warsaw, Poland, 2017*
- **Searching for Confining Hidden Valleys at the LHC(b)**  
*Implications of LHCb measurements and future prospects , CERN, 2017*
- **Using LISA-like Gravitational Wave Detector to Search for Primordial Black Holes**  
*27th Midwest Relativity Meeting, MCTP, University of Michigan, 2017*
- **Searching for Confining Hidden Valleys at the LHC(b)**  
*theory seminar, Perimeter Institute, 2017*
- **Boosted dark matter signatures at neutrino experiments**  
*NUFACT2017, Uppsala University, Sweden, 2017*
- **Hidden Valley search at the LHCb**  
*New Physics Interpretations at the LHC 2, Argonne National Lab, 2017*
- **Neutrino Experiments For DM Detection**  
*theory seminar, Northwestern University, 2017*
- **Hidden Valley search at the LHCb**  
*theory seminar, Cornell University,, US, 2017*
- **Hidden Valley search at the LHCb**  
*theory seminar, University of Wisconsin - Madison, US, 2017*
- **Probing dark matter self-interactions at the LHC**  
*LHCP, Shanghai Jiao Tong University, China, 2017*
- **Naturalness from a Composite Top?**  
*theory seminar, Argonne National Lab, US, 2017*
- **Neutrino experiments for dark matter direct detection**  
*Beyond WIMPs: from Theory to Detection, Stony Brook University-SUNY, US, 2017*
- **DM scattering in superconductors**  
*New Ideas in Dark Matter workshop, Maryland University, 2017*

- **Dark Matter Beyond Weakly Interacting Massive Particle**  
*theory seminar, Tsinghua University, Beijing, China, 2017*
- **Neutrino Experiments For DM Detection**  
*theory seminar, Peking University, Beijing, China, 2017*
- **Dark Matter Beyond Weakly Interacting Massive Particle**  
*theory seminar, ITP-CAS, Beijing, China, 2017*
- **Neutrino Experiments For DM Detection**  
*theory seminar, T.D.Lee Institute, Shanghai, China, 2017*
- **Being Flat With No Symmetries**  
*theory seminar, FermiLab, USA, 2017*
- **Neutrino Experiments For DM Detection**  
*theory seminar, Los Alamos, USA, 2016*
- **Neutrino Experiments For DM Detection**  
*theory seminar, Cincinnati , USA, 2016*
- **Neutrino Experiments For DM Detection**  
*theory seminar, UIUC, USA, 2016*
- **Naturalness from a Composite Top?**  
*theory seminar, University of Notre Dame, USA, 2016*
- **Naturalness from a Composite Top?**  
*Beyond the Standard Model Workshop, University of Michigan, USA, 2016*
- **Naturalness from a Composite Top?**  
*theory seminar, UC Riverside, USA, 2016*
- **Naturalness from a Composite Top?**  
*theory seminar, UC Irvine, USA, 2016*
- **Naturalness from a Composite Top?**  
*theory seminar, Caltech, USA, 2016*
- **Naturalness from a Composite Top?**  
*KITPC/TeV/CEPC workshop , KITPC, China, 2016*
- **Split Coupling SUSY**  
*Pheno 2016, University of Pittsburgh, USA, 2016*
- **Detecting DM with superconductors**  
*Dark Forces 2016, SLAC, USA, 2016*
- **Split Coupling SUSY**  
*1st PIKIO Meeting, University of Cincinnati, USA, 2016*



- **Light Scalar Boson With No Symmetries**  
*Elementary Particle Seminar, University of Maryland, USA, 2015*
- **Being Flat With No Symmetries**  
*High Energy Theory Seminar, MCTP, University of Michigan, USA, 2015*
- **Being Flat With No Symmetries**  
*SUSY 2015, Lake Tahoe, CA, USA, 2015*
- **The AdS<sub>3</sub>/CFT<sub>2</sub> Avatar of the (Little) Hierarchy Problem**  
*The 4th MCTP Spring Symposium, University of Michigan, USA, 2015*
- **The AdS<sub>3</sub>/CFT<sub>2</sub> Avatar of the (Little) Hierarchy Problem**  
*theory seminar, KITP, USA, 2015*
- **The AdS<sub>3</sub>/CFT<sub>2</sub> Avatar of the (Little) Hierarchy Problem**  
*Particle Physics Seminar, Princeton University, USA, 2015*
- **The AdS<sub>3</sub>/CFT<sub>2</sub> Avatar of the (Little) Hierarchy Problem**  
*theory seminar, UCSD, USA, 2015*
- **The AdS<sub>3</sub>/CFT<sub>2</sub> Avatar of the (Little) Hierarchy Problem**  
*TEP Seminars, UCLA, USA, 2015*
- **A Parametrically Enhanced Hidden Photon Search**  
*LHC/BSM Journal Club, MIT, USA, 2014*
- **A Parametrically Enhanced Hidden Photon Search**  
*theory seminar, Boston University, USA, 2014*
- **Explicitly Broken Supersymmetry with Exactly Massless Moduli**  
*Journal Club, Rutgers, USA, 2014*
- **A Parametrically Enhanced Hidden Photon Search**  
*theory seminar, SUNY-Stony Brook, USA, 2014*
- **Explicitly Broken Supersymmetry with Exactly Massless Moduli**  
*theory seminar, UC Berkeley, USA, 2014*
- **A Parametrically Enhanced Hidden Photon Search**  
*theory seminar, UC Riverside, USA, 2014*
- **A Parametrically Enhanced Hidden Photon Search**  
*theory seminar, Caltech, USA, 2014*
- **A Parametrically Enhanced Hidden Photon Search**  
*theory seminar, SISSA, Italy, 2014*
- **Dark Matter Induced Nucleon Decay: Model and Signatures**  
*theory seminar, University of Wisconsin–Madison, USA, 2013*
- **Dark Matter Induced Nucleon Decay: Model and Signatures**

- theory seminar, University of Michigan, USA, 2013*
- **A Complete Model of Low-Scale Gauge Mediation**  
*theory seminar, UC Davis, USA, 2012*
- **A Complete Model of Low-Scale Gauge Mediation**  
*theory seminar, SLAC, USA, 2012*
- **A Complete Model of Low-Scale Gauge Mediation**  
*theory seminar, Berkeley, USA, 2012*
- **Diagnosing the top-quark angular asymmetry using LHC intrinsic charge asymmetries**  
*theory seminar, Harvard, USA, 2012*
- **Early searches for super particles at the LHC**  
*SUSY 2011, Fermilab, USA, 2011*
- **Super particles at the LHC: Early searches and mass measurements**  
*theory seminar, SLAC, USA, 2011*
- **Super particles at the LHC: Early searches and mass measurements**  
*theory seminar, UC Santa Cruz, USA, 2011*
- **Extracting Particle Masses from Missing Energy Signatures with Displaced Tracks**  
*PHENO 2011, University of Wisconsin at Madison, USA, 2011*

## CONFERENCES, WORKSHOPS AND SCHOOLS

- **LIGO-Virgo-KAGRA Collaboration Meeting**  
*Northwestern University, 2023*
- **2019 Meeting of the APS Division of Particles and Fields**  
*Boston, USA, 2019*
- **KITP Sensitivity Frontier Workshop**  
*KITP, UCSB, USA, 2018*
- **Beyond the Standard Model Workshop**  
*University of Michigan, USA, 2016*
- **Aspen Center for Physics 2016 Summer Season**  
*Aspen, USA, 2016*
- **KITPC/TeV/CEPC workshop**  
*KITPC, China, 2016*
- **Pheno 2016**  
*University of Pittsburgh, USA, 2016*
- **Dark Forces 2016**

*SLAC, USA, 2016*

- **1<sup>st</sup> PIKIO Meeting**

*University of Cincinnati, USA, 2016*

- **SUSY 2015**

*Lake Tahoe, CA, USA, 2015*

- **The 4th MCTP Spring Symposium**

*University of Michigan, USA, 2015*

- **Exploring the Physics Frontier with Circular Colliders**

*Aspen, USA, 2015*

- **Frontiers of New Physics: Colliders and Beyond**

*ICTP, Italy, 2014*

- **The Search for Fundamental Physics: Higgs Bosons and Supersymmetry**

*UC Santa Cruz, USA, 2013*

- **West Coast LHC Theory Meeting**

*UC Riverside, USA, 2012*

- **SavasFest**

*Stanford, USA, 2012*

- **Exact Methods in Gauge/String Theories**

*Princeton University, USA, 2011*

- **String Theory and its Applications: from meV to the Plank Scale**

*TASI, University of Colorado, USA, 2010*

- **AdS/CFT: New Developments and Applications**

*Princeton University, USA, 2010*

- **AdS/CFT: New Developments and Applications**

*Princeton University, USA, 2009*

- **Physics of the Large and the Small**

*TASI, University of Colorado, USA, 2009*

- **Current Trends in Dark Matter, Institute for Advanced Studies**

*Princeton University, USA, 2009*

- **Winter School in Theoretical Physics, Institute for Advanced Studies**

*Hebrew University, Israel, 2009.*

- **International Conference on Frontier Physics**

*KITPC, Beijing, China, 2007*

# Publication List

Yue Zhao

**1. Blowing in the Dark Matter Wind**

*Hannah Day, Da Liu, Markus A. Luty, Yue Zhao*  
e-Print: 2312.13345 [hep-ph]  
Submitted to JHEP

**2. Search for dark photons with synchronized quantum sensor network**

*M. Jiang, T. Hong, D. Hu, Y. Chen, F. Yang, T. Hu, X. Yang, J. Shu, Y. Zhao, X. Peng*  
e-Print: 2305.00890 [quant-ph]  
Submitted to Nature Communications

**3. Probing the pulsar explanation of the Galactic-Center GeV excess using continuous gravitational-wave searches**

*Andrew Miller, Yue Zhao*  
e-Print: 2301.10239 [astro-ph.HE]  
*Phys.Rev.Lett.* 131 (2023) 8, 8

**4. Probing early Universe supercooled phase transitions with gravitational wave data**

*C. Badger, B. Fornal, K. Martinovic, A. Romero, K. Turbang, H. Guo, A. Mariotti, M. Sakellariadou, A. Sevrin, F. Yang, Y. Zhao*  
e-Print: 2209.14707 [hep-ph]  
*Phys.Rev.D* 107 (2023) 2, 023511

**5. Birefringence tomography for axion cloud**

*Y. Chen, C. Li, Y. Mizuno, J. Shu, X. Xue, Q. Yuan, Y. Zhao, Z. Zhou*  
e-Print: 2208.05724 [hep-ph]  
JCAP09(2022)073

**6. Detection of Early-Universe Gravitational Wave Signatures and Fundamental Physics**

*Caldwell, et. al.*  
Contributed as one of the key authors  
e-Print: 2203.07972 [gr-qc]  
*Gen.Rel.Grav.* 54 (2022) 12, 156  
2022 Snowmass Summer Study

**7. High-precision search for dark photon DM with the Parkes Pulsar Timing Array**

*with PPTA collaboration*  
Contributed as one of the key authors  
e-Print: arXiv:2112.07687 [hep-ph]  
*Phys. Rev. Research* 4, L012022 - Letter  
Editors' Suggestion

**8. Earth Shielding and Daily Modulation from Electrophilic Boosted Dark Matter**

*Yifan Chen, Bartosz Fornal, Pearl Sandick, Jing Shu, Xiao Xue, Yue Zhao, Junchao Zong*  
e-Print: 2110.09685 [hep-ph]  
*Phys.Rev.D* 107 (2023) 3, 033006

**9. Stochastic Gravitational Wave Background from PBH-ABH Mergers**

*Wenfeng Cui, Fei Huang, Jing Shu, Yue Zhao*  
e-Print: 2108.04279 [astro-ph.CO]  
*Chin.Phys.C* 46 (2022) 5, 055103

**10. Constraints on dark photon dark matter using data from LIGO's and Virgo's third observing run**

*LIGO-Virgo-KAGRA Collaboration*  
*Author in the paper-writing team*  
*e-Print: 2105.13085 [astro-ph.CO]*  
*Phys.Rev.D 105 (2022) 6, 063030*

**11. Stringent constraints on axion-photon coupling with Event Horizon Telescope polarimetric measurements of supermassive black hole M87\***

*Y. Chen, Y. Liu, R. Lu, Y. Mizuno, J. Shu, X. Xue, Q. Yuan, Y. Zhao*  
*e-Print: 2105.04572 [hep-ph]*  
*Nature Astron. 6 (2022) 5, 592-598*

**12. Gravitational Waves from Mini-Split SUSY**

*Bartosz Fornal, Barmak Shams Es Haghi, Jiang-Hao Yu, Yue Zhao*  
*e-Print: 2104.00747 [hep-ph]*  
*Phys.Lett.B 815 (2021) 136151*

**13. Implications for First-Order Cosmological Phase Transitions from the Third LIGO-Virgo Observing Run**

*A. Romero, K. Martinovic, T. Callister, H. Guo, M. Martínez, M. Sakellariadou, F. Yang, Y. Zhao*  
*e-Print: 2102.01714 [hep-ph]*  
*Phys. Rev. Lett. 126, 151301 (2021)*

**14. Constraints on cosmic strings using data from the third Advanced LIGO-Virgo observing run**

*LIGO-Virgo-KAGRA Collaboration*  
*Author in the paper-writing team*  
*e-Print: 2101.12248 [gr-qc]*  
*Phys.Rev.Lett. 126 (2021) 241102*  
*Editors' Suggestion*

**15. Mechanical Quantum Sensing in the Search for Dark Matter**

*Daniel Carney, et. al.*  
*e-Print: arXiv:2008.06074 [physics.ins-det]*  
*Quantum Science and Technology-100938.R1*

**16. Boosted Dark Matter Interpretation of the XENON1T Excess**

*Bartosz Fornal, Pearl Sandick, Jing Shu, Meng Su, Yue Zhao*  
*e-Print: arXiv:2006.11264 [hep-ph]*  
*Phys.Rev.Lett. 125 (2020) 16, 161804*  
*Featured in Physics*  
*Editors' Suggestion*

**17. Baryonic and Leptonic GeV Dark Matter**

*Bartosz Fornal, Alec Hewitt, Yue Zhao*  
*e-Print: arXiv:2011.09014 [hep-ph]*  
*Phys.Lett.B 811 (2021) 136151*

**18. Dark Matter Capture by Atomic Nuclei**

*Bartosz Fornal, Benjamin Grinstein, Yue Zhao*  
*e-Print: arXiv: 2005.04240 [hep-ph]*  
*Phys.Lett.B 811 (2020) 135869*

**19. Producing and detecting long-lived particles at different experiments at the LHC**

Chaochen Yuan, Huaqiao Zhang, Yue Zhao  
e-Print: arXiv: 2004.08820 [hep-ph]  
JHEP 02 (2022) 069

**20. Prospects for Detecting Boosted Dark Matter in DUNE through Hadronic Interactions**

J. Berger, Y. Cui, M. Graham, L. Necib, G. Petrillo, D. Stocks, Y. Tsai, Y. Zhao  
e-Print: arXiv:1912.05558 [hep-ph]  
Phys.Rev.D 103 (2021) 9, 095012

**21. Ultralight dark matter detection with mechanical quantum sensors**

Daniel Carney, Anson Hook, Zhen Liu, Jacob M. Taylor, Yue Zhao.  
e-Print: arXiv:1908.04797 [hep-ph]  
New J.Phys. 23 (2021) 2, 023041

**22. Searching for Dark Photon Dark Matter in LIGO O1 Data**

Huai-Ke Guo, Keith Riles, Feng-Wei Yang, Yue Zhao  
e-Print: arXiv:1905.04316 [hep-ph]  
Nature - Commun.Phys. 2 (2019) 155

**23. Probing Axions with Event Horizon Telescope Polarimetric Measurements**

Yifan Chen, Jing Shu, Xiao Xue, Qiang Yuan, Yue Zhao  
e-Print: arXiv:1905.02213 [hep-ph]  
Phys.Rev.Lett. 124 (2020) 6, 061102

**24. Detecting dark photon dark matter with Gaia-like astrometry observations**

Huai-Ke Guo, Yingqi Ma, Jing Shu, Xiao Xue, Qiang Yuan, Yue Zhao  
e-Print: arXiv:1902.05962 [hep-ph]  
JCAP 1905 (2019) no.05, 015

**25. Detecting Axion-like Dark Matter with Linearly Polarized Pulsar Light**

Tao Liu, George Smoot, Yue Zhao  
e-Print: arXiv:1901.10981 [astro-ph.CO]  
Phys.Rev.D 101 (2020) 6, 063012

**26. Dark Photon Dark Matter Produced by Axion Oscillations**

Raymond T. Co, Aaron Pierce, Zhengkang Zhang, Yue Zhao  
e-Print: arXiv:1810.07196 [hep-ph]  
Phys.Rev. D99 (2019) no.7, 075002

**27. Searching for Dark Photon Dark Matter with Gravitational Wave Detectors**

Aaron Pierce, Keith Riles, Yue Zhao  
e-Print: arXiv:1801.10161 [hep-ph]  
Phys.Rev.Lett. 121 (2018) no.6, 061102

**28. Using LISA-like Gravitational Wave Detectors to Search for Primordial Black Holes**

Huai-Ke Guo, Jing Shu, Yue Zhao  
e-Print: arXiv:1709.03500 [astro-ph.CO]  
Phys.Rev. D99 (2019) no.2, 023001

**29. A Strong Test of the Dark Matter Origin of the 1.4 TeV DAMPE Signal Using IceCube Neutrinos**

Yue Zhao, Ke Fang, Meng Su, M. Coleman Miller  
e-Print: arXiv:1712.03210 [astro-ph.HE]  
JCAP 1806 (2018) no.06, 030

**30. Hidden Valley search at the LHCb**

Aaron Pierce, Bibhushan Shakya, Yuhsin Tsai, Yue Zhao  
e-Print: [arXiv:1708.05389](https://arxiv.org/abs/1708.05389) [hep-ph]  
*Phys.Rev. D97* (2018) 095033

**31. Was the Universe Actually Radiation Dominated Prior to Nucleosynthesis?**

John T. Giblin, Gordon Kane, Eva Nesbit, Scott Watson, Yue Zhao  
e-Print: [arXiv:1706.08536](https://arxiv.org/abs/1706.08536) [hep-th]  
*Phys.Rev. D96* (2017) no.4, 043525

**32. Establishing the Isolated Standard Model**

James D. Wells, Zhengkang Zhang, Yue Zhao  
e-Print: [arXiv:1702.06954](https://arxiv.org/abs/1702.06954) [hep-ph]  
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