

DOĞA VESKE

Citizenship: Turkey, Luxembourg

email: veske@metu.edu.tr

EDUCATION

Columbia University, NY, USA

Ph.D. in Physics

05/2022

Thesis title: Searching for new discoveries in binary black hole mergers and of multi-messenger detections with gravitational-waves

Advisor: Szabolcs Márka

M.Phil. in Physics

05/2020

M.A. in Physics

02/2019

Middle East Technical University (METU), TR

B.S. in Physics - Advanced Program - *high honor student*

06/2017

B.S. in Electrical and Electronics Engineering - *high honor student*

06/2016

LANGUAGES

Turkish: native

English: fluent

German: intermediate

RESEARCH INTERESTS

Since PhD: Multi-messenger astronomy, gravitational-waves, astrophysical high-energy neutrinos, gravitational-wave observations and signs of modified gravity theories, dark matter detection with gravitational-wave detectors, future gravitational-wave detectors, dynamical binary neutron star mergers, binary black hole formations, gravitational lensing, different use cases of gravitational-wave detectors, quantum computing, matched filtering

As an undergraduate student: Design of a proton beam monitoring system with scintillating fibers including its readout circuitry; GEANT4 simulations for particle interactions with beamline elements, semiconductor and electronics devices; degradation of electronics from particle radiation; spark chamber construction for atmospheric muon detection

EXPERIENCE

MSCA COFUND Fellow

03/2025-Present

Department of Physics, METU

International Early Career Researcher

10/2024-Present

Department of Physics, METU

Post-doctoral research scientist

01/2024-Present

Columbia Astrophysics Laboratory, Columbia University

Post-doctoral researcher

07/2022-07/2024

Institute for Theoretical Physics, Heidelberg University

Ph.D. student researcher and teaching assistant

09/2017 - 05/2022

Department of Physics, Columbia University - Advisor: Szabolcs Márka

Undergraduate student researcher

2013 - 2017

Department of Physics, METU - Advisor: M. Bilge Demirköz

Summer student

06-08/2015

CERN - Advisor: Ilias Efthymiopoulos

Engineering internship
TAI - Turkish Aerospace Industries Inc.
Avionics and hardware departments

06-07/2014

COLLABORATION MEMBERSHIPS

Current

IceCube Collaboration: Member (2022-Present), Associate member (2018-2022)
Einstein Telescope Collaboration: Member (2023-Present)
LISA Consortium: Member (2023-Present)

Past

LIGO Scientific Collaboration: Member (2018-2024)

GRANTS AND FELLOWSHIP FUNDINGS

Marie Skłodowska-Curie Actions COFUND Fellowship (2025)
€115,200

TÜBİTAK International Fellowship for Early Stage Researchers (2024)
11,749,320 TL ($\approx$ \$350,000) - sole-investigator
(TÜBİTAK: The Scientific and Technological Research Council of Turkey - NSF/ERC like entity)

Space Telescope Science Institute - Hubble Space Telescope grant (2022)
\$139,950 - as co-investigator

Fulbright Ph.D. scholarship (2017-19)
\$100,000 - Only grantee in natural sciences from Turkey in my cohort

TÜBİTAK undergraduate thesis project grant (2016)
4,000 TL ($\approx$ \$1,350 at that time)

Scholarship from TÜBİTAK national scholarship program (2014-17)
Total of $\sim$ 25,000 TL ($\approx$ \$10,000)

Engin Arık Fellowship during CERN summer school (2015)
5,040 CHF

HONORS AND AWARDS

Jacob Shaham Fellowship (2019-20 academic year)
Awarded by Columbia U. for academic qualifications and contributions

CERN Summer Student Webfest best educational project award (2015)
Made a browser game explaining the early stages of the Universe

11th annual Cansat Competition in Texas, 4th place as METUSAT Team (2015)
An engineering team competition for designing and producing a primitive satellite which is launched and expected to perform certain tasks during its descent

Best term project award in undergraduate digital electronics lab course (2015)
Designed and implemented a game to FPGA with Verilog

TEACHING

METU Physics Department

- Spring 2025, Instructor, Gravitational-Wave Physics and Astronomy PHYS760
- Fall 2024, Instructor, Introduction to Stochastic Processes in Physics PHYS448

Heidelberg University, Institute for Theoretical Physics

- Fall 2022, Recitation TA, Advanced General Relativity

Columbia University Astronomy Department

- Spring 2022, Guest lecturer, High Energy Astrophysics UN3273

Columbia University Physics Department

- Spring 2022, Recitation TA, General Physics II UN1202
- Spring 2022, Lab TA, Intermediate Laboratory Work UN3081
- Fall 2021, Guest lecturer, Seminar in Current Research Problems UN3072
- Fall 2021, Recitation TA, General Physics I UN1201
- Fall 2021, Lab TA, Intermediate Laboratory Work UN3081
- Spring 2020, Lab TA, Intermediate Laboratory Work UN3081
- Fall 2019, Lab TA, Intermediate Laboratory Work UN3081
- Fall 2019, Recitation TA, General Physics I UN1201
- Fall 2018, Recitation TA, Introduction to Classical and Quantum Waves UN1403
- Spring 2018, Lab TA, General Physics II Lab UN1294
- Fall 2017, Lab TA, General Physics I Lab UN1293

STUDENT MENTORING

PhD

- 2024-Present, Mina Meşe, METU

Master's

- 2024-Present (coadvisor), Egemen Göver, METU
- 2023-2024 (coadvisor), Jasper Seehofer, Heidelberg U.

Undergraduate

- Have mentored 15+ undergraduate students
Collaborations resulted in publications:
- 2019-22, Andrew Sullivan, Columbia U. (→ Stanford University)
- 2018-20, John Zaris, Columbia U. (→ University of Colorado Boulder)

OUTREACH

Volunteering for explaining science to general public; talks given to undergraduate and high school students, in the US and Turkey

CERN Masterclass (2025) - Ankara and Konya, Turkey

Girls' Science Day (2019), Columbia University, New York, NY, USA

World Science Festival (2018 and 2019), New York, NY, USA

CERN Summer Student Webfest (2015) best educational project award for making a browser game explaining the early stages of the Universe

SERVICE

Peer reviewer for Nature Astronomy, The Astrophysical Journal, The Astrophysical Journal Letters, Fortschritte der Physik, International Journal of Modern Physics D, Classical and Quantum Gravity

Co-organizer of the cosmology seminars at ITP Heidelberg (2024)

INVITED TALKS AND LECTURES

2025 - CERN Masterclass Lecture - Konya, Turkey
2025 - CERN Masterclass Lecture - Ankara, Turkey
2024 - Ferit Öktem memorial convention at METU
2024 - Physics summer school of The Science Academy Society of Turkey
2024 - Institute for Theoretical Physics, Heidelberg University cosmology seminar
2024 - UC Louvain Centre for Cosmology, Particle Physics and Phenomenology seminar
2023 - METU Physics Department seminar
2023 - Matter and Universe days 2023 - Karlsruhe, Germany
2023 - Bilkent University Physics Department seminar
2022 - Istanbul Technical University Physics Engineering Department seminar
2022 - METU Physics Department seminar
2022 - Columbia University Astronomy Department guest lecturer for High Energy Astrophysics undergraduate class
2022 - Columbia University graduate students' happy hour
2021 - Boğaziçi University Physics Department - outreach talk for undergraduate and high school students
2021 - Columbia University Physics Department guest lecturer for undergraduate seminar class
2020 - Columbia U. Society of Physics Students
2020 - METU Physics Department seminar
2016 - METU Math Society

CONTRIBUTED TALKS

2024 - IceCube Spring 2024 Collaboration Meeting
2023 - IceCube Fall 2023 Collaboration Meeting
2022 - American Physical Society (APS) April Meeting, New York City, NY, USA
2021 - Gravitational Waves Physics and Astronomy Workshop (GWPAW) 2021, Hannover, Germany
2021 - Turkish Physical Society 37th International Physics Congress, Bodrum, Turkey
2021 - 17th International Conference on Topics in Astroparticle and Underground Physics
2021 - 37th International Cosmic Ray Conference 2021 (for the IceCube Collaboration)
2021 - 16th Marcel Grossman Meeting
2021 - Very Large Volume Neutrino Telescopes Workshop (for the IceCube Collaboration)
2021 - American Physical Society (APS) April Meeting
2021 - IceCube Spring 2021 Collaboration Meeting
2020 - (**Plenary**) IceCube Spring 2020 Collaboration Meeting
2019 - IceCube Spring 2019 Collaboration Meeting

POSTER PRESENTATIONS

2021 - Gravitational Waves Physics and Astronomy Workshop (GWPAW) 2021, Hannover, Germany
 2021 - APS April Meeting, online
 2021 - 55th Rencontres de Moriond – Gravitation, online
 2020 - Cosmic Rays and Neutrinos in the Multi-Messenger Era Conference, online
 2020 - Neutrino 2020 Conference, online
 2016 - METU Engineering Day, Ankara ,Turkey

MEDIA COVERAGE

[Jam Sesh with the Gravitational Wave Multi-Band](#) - Astrobites (2024)
[Bangs Without Flashes: Gravitational Waves and Elusive Neutrinos](#) - AAS Nova (2023)
[Des tsunamis émetteurs de rayons X sur les étoiles à neutrons?](#) - Ciel & espace (2023-in French)
[Search for neutrino emission associated with LIGO/Virgo gravitational waves](#) - IceCube news (2022)
[Flashes from neutron star tidal waves may signal impending mergers](#) - Space.com (2022)
[Where are IceCube’s neutrinos coming from?](#) - Antarctic Sun (2022)
[Searching for neutrino emission from 11 LIGO-Virgo gravitational wave sources](#) - IceCube news (2020)

PUBLICATIONS

Journal (as an individual author or the collaboration articles that I co-led)

Author ordering in my papers doesn’t have a standard due to the conventions in different fields: some of them are in decreasing contribution, some of them are alphabetical, some are mixed. To avoid any wrong assumptions on my leading contributions:

(L) indicates that I was the lead/co-lead author

(S) indicates that I supervised the work of the lead author

20. **(L)** D. Veske, A. Zhang, Z. Márka, S. Márka, *Enhancing the significance of astrophysical events with multimessenger coincidences*, Phys.Rev.D 111 (2025) 103013, arXiv:2407.08732
19. **(L)** L. Heisenberg, D. Maibach, D. Veske, *Searching for Topological Dark Matter in LIGO Data*, Phys.Rev.D 110 (2024) 055037, arXiv:2309.05093
18. S. Fell, L. Heisenberg, D. Veske, *Detecting Fundamental Vector Fields with LISA*, Phys.Rev.D 108 (2023) 083010, arXiv:2304.14129
17. **(L)** R. Abbasi et al. (IceCube Collaboration), *IceCube search for neutrinos coincident with gravitational wave events from LIGO/Virgo run O3*, Astrophys.J. 944 (2023) 1, 80, arXiv:2208.09532
[IceCube news](#), [Featured in AAS Nova](#)
16. A. G. Sullivan, L. M. B. Alves, G. O. Spence, I. P. Leite, D. Veske, I. Bartos, Z. Márka, S. Márka, *Multi-messenger Emission from Tidal Waves in Neutron Star Oceans*, MNRAS 520, 4 (2023), 6173–6189, arXiv:2205.13541 [Space.com coverage](#), [Ciel & espace coverage](#)
15. **(L)** D. Veske, C. Tüysüz, M. Amico, N. T. Bronn, O. T. Lanes, I. Bartos, Z. Márka, S. Will, S. Márka, *Gravitational-wave matched filtering on a quantum computer*, Phys. Scr. 99 075117 (2024), arXiv:2204.04159 [Selected to the Focus Collection on Quantum Information Science](#)
14. **(S)** A. G. Sullivan, D. Veske, Z. Márka, I. Bartos, S. Márka, *Probing the Dark Solar System: Detecting Binary Asteroids with a Space-Based Interferometric Asteroid Explorer*, MNRAS 512, 3 (2022) 3738–3753, arXiv:2203.05547

13. C. B. Adams et al. (with VERITAS collaboration), *An Archival Search for Neutron-Star Mergers in Gravitational Waves and Very-High-Energy Gamma Rays*, *Astrophys.J.* 918 (2021) 2, 66, arXiv:2106.01386
12. (L) D. Veske, I. Bartos, Z. Márka, S. Márka, *Characterizing the observation bias in gravitational-wave detections and finding structured population properties*, *Astrophys.J* 922 (2021) 2, 258, arXiv:2105.13983
11. I. Bartos, D. Veske, M. Kowalski, Z. Márka, S. Márka, *The IceCube Pie Chart: Relative Source Contributions to the Cosmic Neutrino Flux*, *Astrophys.J.* 921 (2021) 1, 45, arXiv:2105.03792, [Antarctic Sun coverage](#)
10. J. Yan, M. Avagyan, R. Colgan, D. Veske, I. Bartos, J. Wright, Z. Márka, S. Márka, *Generalized Approach to Matched Filtering using Neural Networks*, *Phys.Rev.D* 105 (2022) 4, 043006, arXiv:2104.03961
9. (L) D. Veske, A. Sullivan, Z. Márka, I. Bartos, K. R. Corley, J. Samsing, R. Buscicchio, S. Márka, *Search for Black Hole Merger Families*, *Astrophys.J.Lett.* 907 (2021) 2, L48, arXiv:2011.06591
8. A. Keivani, J. Kennea, P. Evans, A. Tohuvavohu, R. Rapisura, S. Oates, S. Countryman, I. Bartos, Z. Márka, D. Veske, S. Márka, D. Fox, *Swift Follow-up Observations of Gravitational-wave and High-energy Neutrino Coincident Signals*, *Astrophys.J* 909 (2021) 2, 126, arXiv:2011.01319
7. (L) D. Veske, Z. Márka, I. Bartos, S. Márka, *How to Search for Multiple Messengers—A General Framework Beyond Two Messengers*, *Astrophys.J.* 908 (2021) 2, 216, arXiv:2010.04162
6. (S) A. G. Sullivan, D. Veske, Z. Márka, I. Bartos, S. Ballmer, P. Shawhan, S. Márka, *Can we use Next-Generation Gravitational Wave Detectors for Precision Measurements of Shapiro Delay?*, *Class.Quant.Grav.* 37 (2020) 20, 205005, arXiv:2005.07188
5. (L) M. G. Aartsen et al. (IceCube Collaboration), *IceCube Search for Neutrinos Coincident with Compact Binary Mergers from LIGO-Virgo’s First Gravitational-Wave Transient Catalog*, *Astrophys.J.Lett.* 898 (2020) 1, L10, arXiv:2004.02910, [IceCube news](#)
4. (L) D. Veske, Z. Márka, A. Sullivan, I. Bartos, K. R. Corley, J. Samsing, S. Márka, *Have hierarchical three-body mergers been detected by LIGO/Virgo?*, *MNRAS-Lett.* 498 (2020) 1, L46-L52, arXiv:2002.12346
3. (L) D. Veske, Z. Márka, I. Bartos, S. Márka, *Neutrino emission upper limits with maximum likelihood estimators for joint astrophysical neutrino searches with large sky localizations*, *JCAP* 05 (2020) 016, arXiv:2001.00566
2. (S) J. Zaris, D. Veske, J. Samsing, Z. Márka, I. Bartos, S. Márka, *Constraining Black Hole Populations in Globular Clusters using Microlensing: Application to Omega Centauri*, *Astrophys.J.Lett.* 894 (2020) 1, L9, arXiv:1912.05701
1. I. Bartos, D. Veske, A. Keivani, Z. Márka, S. Countryman, E. Blaufuss, C. Finley, S. Márka, *Bayesian multimessenger search method for common sources of gravitational waves and high-energy neutrinos*, *Phys.Rev.D* 100 (2019) 083017, arXiv:1810.11467

Pre-prints

4. (S) E. Göver, D. Veske, M. B. Demirköz, *Geant4 and FLUKA Simulations of a Cyclotron Based 30 MeV Proton-Beryllium Reaction: Benchmarking and Optimization of Neutron Fields*, arXiv:2503.05426
3. L. M. B. Alves, A. G. Sullivan, I. Bartos, D. Veske, S. Will, Z. Márka, S. Márka, *Artificial Precision Timing Array: bridging the decihertz gravitational-wave sensitivity gap with clock satellites*, arXiv:2401.13668 [Astrobites coverage](#)
2. V. Gayathri, I. Bartos, S. Rosswog, M.C. Miller, D. Veske, W. Lu, S. Marka, *Do gravitational wave observations in the lower mass gap favor a hierarchical triple origin?*, arXiv:2307.09097

1. I. Bartos, S. Rosswog, V. Gayathri, M.C. Miller, D. Veske, S. Marka, *Hierarchical Triples as Early Sources of r-process Elements*, arXiv:2302.10350

Conference proceedings (as an individual author or the collaboration articles that I co-led)

7. C. Adams et al., *An Archival Search for Neutron-Star Mergers with Gravitational Waves and Very-High-Energy Gamma Rays*, 37th International Cosmic Ray Conference 2021, 395, pp. 948, arXiv:2108.07317
6. D. Veske et al., *Multi-messenger searches via IceCube's high-energy neutrinos and gravitational-wave detections of LIGO/Virgo*, 37th International Cosmic Ray Conference 2021, 395, pp. 950, arXiv:2107.09663
5. D. Veske et al., *Search for Hierarchical Triple Black Hole Mergers*, 55th Recontres de Moriond - Gravitation, pp. 187
4. A. Keivani et al., *Multi-messenger Gravitational-Wave + High-Energy Neutrino Searches with LIGO, Virgo, and IceCube*, 36th International Cosmic Ray Conference 2019, 385, pp. 930, arXiv:1908.04996
3. B. Bodur et al., *Metu-defocusing beam line project and beam optics studies*, 13th International Topical Meeting on Nuclear Applications of Accelerators 2017: The Expanding Universe of Accelerator Applications, AccApp 2017, pp. 458 - 467
2. M. B. Demirköz et al., *Pretest setup installation of the METU-DBL project to perform space radiation tests*, 8th International Conference on Recent Advances in Space Technologies (RAST), 2017, pp. 311-316
1. A. Gencer et al., *Preliminary Test Setup of the Metu Defocusing Beam Line, an Irradiation Facility in Turkey*, 8th International Particle Accelerator Conference, 2017, pp. 4750

Translations from English to Turkish for a book

(with B. Bodur and Ü. M. Çağlar)

- 2016 - *A Mathematical Theory of Communication* by Claude Elwood Shannon
 - 2016 - *A Symbolic Analysis of Relay and Switching Circuits* by Claude Elwood Shannon
- Both articles were collected in the book "Shannon'a Saygı" (Respect to Shannon), which was published by the Chamber of Electrical Engineers (Turkey) for Shannon's 100th birth anniversary.

Journal (remaining collaboration articles)

97. R. Abbasi et al. (IceCube Collaboration), *Probing the PeV Region in the Astrophysical Neutrino Spectrum using ν_μ from the Southern Sky*, arXiv:2502.19776
96. R. Abbasi et al. (IceCube Collaboration), *Seasonal Variations of the Atmospheric Muon Neutrino Spectrum measured with IceCube*, arXiv:2502.17890
95. R. Abbasi et al. (IceCube Collaboration), *Measurement of the inelasticity distribution of neutrino-nucleon interactions for $80 \text{ GeV} < E_\nu < 560 \text{ GeV}$ with IceCube DeepCore*, arXiv:2502.13299
94. R. Abbasi et al. (IceCube Collaboration), *Search for Heavy Neutral Leptons with IceCube DeepCore*, arXiv:2502.09454
93. A. Acharyya et al. (VERITAS and IceCube Collaboration), *VERITAS and multiwavelength observations of the Blazar B3 2247+381 in response to an IceCube neutrino alert*, *Astrophys.J.* 982 (2025) 2, 80, arXiv:2502.03853
92. R. Abbasi et al. (IceCube Collaboration), *A search for extremely-high-energy neutrinos and first constraints on the ultra-high-energy cosmic-ray proton fraction with IceCube*, arXiv:2502.01963
91. R. Abbasi et al. (IceCube Collaboration), *Time-Integrated Southern-Sky Neutrino Source Searches with 10 Years of IceCube Starting-Track Events at Energies Down to 1 TeV*, arXiv:2501.16440

90. R. Abbasi et al. (IceCube Collaboration), *Search for neutrino doublets and triplets using 11.4 years of IceCube data*, *Astrophys.J.* 981 (2025) 2, 159, arXiv:2501.09276
89. R. Abbasi et al. (IceCube Collaboration), *Search for dark matter from the center of the Earth with ten years of IceCube data*, *Eur.Phys.J.C* 85 (2025) 5, 490, arXiv:2412.12972
88. R. Abbasi et al. (IceCube Collaboration), *Observation of Cosmic-Ray Anisotropy in the Southern Hemisphere with Twelve Years of Data Collected by the IceCube Neutrino Observatory*, *Astrophys.J.* 981 (2025) 2, 182, arXiv:2412.05046
87. G. Raman et al. (Swift-BAT/GUANO, Swift, LIGO Scientific, Virgo and KAGRA Collaborations), *Swift-BAT GUANO follow-up of gravitational-wave triggers in the third LIGO-Virgo-KAGRA observing run*, *Astrophys.J.* 980 (2025) 2, 207, arXiv:2407.12867
86. R. Abbasi et al. (IceCube Collaboration), *Search for a light sterile neutrino with 7.5 years of IceCube DeepCore data*, *Phys.Rev.D* 110 (2024) 7, 072007, arXiv:2407.01314
85. R. Abbasi et al. (IceCube Collaboration), *Probing the connection between IceCube neutrinos and MOJAVE AGN*, *Astrophys.J.* 973 (2024) 2, 97, arXiv:2407.01351
84. R. Abbasi et al. (IceCube Collaboration), *IceCube Search for Neutrino Emission from X-ray Bright Seyfert Galaxies*, arXiv:2406.07601
83. R. Abbasi et al. (IceCube Collaboration), *Search for neutrino emission from hard X-ray AGN with IceCube*, *Astrophys.J.* 981 (2025) 2, 131, arXiv:2406.06684
82. R. Abbasi et al. (IceCube Collaboration), *Exploration of mass splitting and muon/tau mixing parameters for an eV-scale sterile neutrino with IceCube*, *Phys.Lett.B* 858 (2024) 139077, arXiv:2406.00905
81. R. Abbasi et al. (IceCube Collaboration), *A search for an eV-scale sterile neutrino using improved high-energy ν_μ event reconstruction in IceCube*, *Phys.Rev.Lett.* 133 (2024) 20, 201804, arXiv:2405.08070
80. R. Abbasi et al. (IceCube Collaboration), *Methods and stability tests associated with the sterile neutrino search using improved high-energy ν_μ event reconstruction in IceCube*, *Phys.Rev.D* 110 (2024) 9, 092009, arXiv:2405.08077
79. R. Alfaro et al. (HAWC Collaboration and IceCube Collaboration), *Search for joint multimessenger signals from potential Galactic PeVatrons with HAWC and IceCube*, *Astrophys.J.* 976 (2024) 1, 8, arXiv:2405.03817
78. R. Abbasi et al. (IceCube Collaboration), *Measurement of atmospheric neutrino oscillation parameters using convolutional neural networks with 9.3 years of data in IceCube DeepCore*, *Phys.Rev.Lett.* 134 (2025) 9, 091801, arXiv:2405.02163
77. R. Abbasi et al. (IceCube Collaboration), *Acceptance Tests of more than 10 000 Photomultiplier Tubes for the multi-PMT Digital Optical Modules of the IceCube Upgrade*, *JINST* 19 (2024) 07, P07038, arXiv:2404.19589
76. A. Abac et al. (LIGO Scientific Collaboration, Virgo Collaboration, KAGRA Collaboration), *Ultralight vector dark matter search using data from the KAGRA O3GK run*, *Phys.Rev.D* 110 (2024) 4, 042001, arXiv:2403.03004
75. R. Abbasi et al. (IceCube Collaboration), *Observation of Seven Astrophysical Tau Neutrino Candidates with IceCube*, *Phys.Rev.Lett.* 132 (2024) 15, 151001, arXiv:2403.02516
74. R. Abbasi et al. (IceCube Collaboration), *Improved modeling of in-ice particle showers for IceCube event reconstruction*, *JINST* 19 (2024) 06, P06026, arXiv:2403.02470
73. R. Abbasi et al. (IceCube Collaboration), *Characterization of the Astrophysical Diffuse Neutrino Flux using Starting Track Events in IceCube*, *Phys.Rev.D* 110 (2024) 2, 022001, arXiv:2402.18026

72. R. Abbasi et al. (IceCube Collaboration), *Citizen Science for IceCube: Name that Neutrino*, Eur.Phys.J.Plus 139 (2024) 6, 533, arXiv:2401.11994
71. R. Abbasi et al. (IceCube Collaboration), *In situ estimation of ice crystal properties at the South Pole using LED calibration data from the IceCube Neutrino Observatory*, The Cryosphere 18 (2024) 1, 75-102
70. R. Abbasi et al. (IceCube Collaboration), *Search for 10–1,000 GeV neutrinos from Gamma Ray Bursts with IceCube*, Astrophys.J. 964 (2024) 2, 126, arXiv:2312.11515
69. R. Abbasi et al. (IceCube Collaboration), *All-Sky Search for Transient Astrophysical Neutrino Emission with 10 Years of IceCube Cascade Events*, Astrophys.J. 967 (2024) 1, 48, arXiv:2312.05362
68. R. Abbasi et al. (IceCube Collaboration), *Search for Continuous and Transient Neutrino Emission Associated with IceCube’s Highest-Energy Tracks: An 11-Year Analysis*, Astrophys.J. 964 (2024) 1, 40, arXiv:2309.12130
67. C. Fletcher et al. (LIGO Scientific Collaboration, Virgo Collaboration, KAGRA Collaboration, Fermi Gamma-ray Burst Monitor Team), *A Joint Fermi-GBM and Swift-BAT Analysis of Gravitational-Wave Candidates from the Third Gravitational-wave Observing Run*, Astrophys.J. 964 (2024) 2, 149, arXiv:2308.13666
66. A. G. Abac et al. (LIGO Scientific Collaboration, Virgo Collaboration, KAGRA Collaboration), *Search for Eccentric Black Hole Coalescences during the Third Observing Run of LIGO and Virgo*, Astrophys.J. 973 (2024) 2, 132, arXiv:2308.03822
65. R. Abbasi et al. (IceCube Collaboration), *Search for Galactic core-collapse supernovae in a decade of data taken with the IceCube Neutrino Observatory*, Astrophys.J. 961 (2024) 1, 84, arXiv:2308.01172
64. R. Abbasi et al. (IceCube Collaboration), *Search for decoherence from quantum gravity with atmospheric neutrinos*, Nature Phys. 20 (2024) 6, 913-920, arXiv:2308.00105
63. R. Abbasi et al. (IceCube Collaboration), *Search for Extended Sources of Neutrino Emission in the Galactic Plane with IceCube*, Astrophys.J. 956 (2023) 1, 20, arXiv:2307.07576
62. R. Abbasi et al. (IceCube Collaboration), *Search for correlations of high-energy neutrinos detected in IceCube with radio-bright AGN and gamma-ray emission from blazars*, Astrophys.J. 954 (2023) 1, 75, arXiv:2304.12675
61. R. Abbasi et al. (IceCube Collaboration), *Measurement of Atmospheric Neutrino Mixing with Improved IceCube DeepCore Calibration and Data Processing*, Phys.Rev.D 108 (2023) 1, 012014, arXiv:2304.12236
60. R. Abbott et al. (LIGO Scientific Collaboration, Virgo Collaboration, KAGRA Collaboration), *Search for gravitational-lensing signatures in the full third observing run of the LIGO-Virgo network*, Astrophys.J. 970 (2024) 2, 191, arXiv:2304.08393
59. R. Abbasi et al. (IceCube Collaboration), *IceCat-1: the IceCube Event Catalog of Alert Tracks*, Astrophys.J.Suppl. 269 (2023) 1, 25, arXiv:2304.01174
58. R. Abbasi et al. (IceCube Collaboration), *A Search for IceCube sub-TeV Neutrinos Correlated with Gravitational-Wave Events Detected By LIGO/Virgo*, Astrophys.J. 959 (2023) 2, 96, arXiv:2303.15970
57. R. Abbasi et al. (IceCube Collaboration), *Search for neutrino lines from dark matter annihilation and decay with IceCube*, Phys.Rev.D 108 (2023) 10, 102004, arXiv:2303.13663
56. R. Abbasi et al. (IceCube Collaboration), *Observation of Seasonal Variations of the Flux of High-Energy Atmospheric Neutrinos with IceCube*, Eur.Phys.J.C 83 (2023) 9, 777, arXiv:2303.04682
55. R. Abbasi et al. (IceCube Collaboration), *Constraining High-Energy Neutrino Emission from Supernovae with IceCube*, Astrophys.J.Lett. 949 (2023) 1, L12, arXiv:2303.03316

54. R. Abbasi et al. (IceCube Collaboration), *Limits on Neutrino Emission from GRB 221009A from MeV to PeV using the IceCube Neutrino Observatory*, *Astrophys.J.Lett.* 946 (2023) 1, L26, arXiv:2302.05459
53. R. Abbott et al. (LIGO Scientific Collaboration, Virgo Collaboration, KAGRA Collaboration), *Open data from the third observing run of LIGO, Virgo, KAGRA and GEO*, *Astrophys.J.Suppl.* 267 (2023) 2, 29, arXiv:2302.03676
52. R. Abbasi et al. (IceCube Collaboration), *D-Egg: a Dual PMT Optical Module for IceCube*, *JINST* 18 (2023) 04, P04014, arXiv:2212.14526
51. R. Abbasi et al. (IceCube Collaboration), *A Search for Coincident Neutrino Emission from Fast Radio Bursts with Seven Years of IceCube Cascade Events*, *Astrophys.J.* 946 (2023) 2, 80, arXiv:2212.06702
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