BRIAN A. CLARK

2105 Physical Sciences Complex
University of Maryland, College Park
College Park, MD 20742

Phone: (301)-405-6036
Email: baclark@umd.edu
Website: `https://baclark.physics.umd.edu`
OrcID / inSPIRE: 0000-0003-4089-2245 / Brian.A.Clark.1

ACADEMIC APPOINTMENTS

Assistant Professor of Physics and JSI Junior Fellow 2023-Present
University of Maryland & Joint Space Science Institute (JSI), College Park, MD USA

NSF Astronomy and Astrophysics Postdoctoral Fellow 2019-2022
Michigan State University, East Lansing, MI USA

NSF Graduate Research Fellow 2016-2019
The Ohio State University, Columbus, OH USA

Teaching Assistant 2015-2016
The Ohio State University, Columbus, OH USA

EDUCATION

Ph.D. in Physics, The Ohio State University, Columbus, Ohio USA 2014-2019
Thesis: *Optimization of a Search for Ultra-High Energy Neutrinos in Four Years of Data of ARA Station 2*
Advisor: Prof. Amy Connolly

M.S. in Physics, The Ohio State University, Columbus, Ohio USA 2014-2016

B.A. in Physics, Washington University in St. Louis, St. Louis, Missouri USA 2010-2014
Cum Laude, Advisor: Prof. Henric Krawczynski

FELLOWSHIPS and AWARDS

NSF Astronomy and Astrophysics Postdoctoral Fellowship	2019-2022
Japanese Society for the Promotion of Science Postdoctoral Fellowship	2022
NSF Graduate Research Fellowship	2016-2019
OSU Graduate Enrichment Fellowship	2014-2015
WUSTL Undergraduate Physics Research Fellow	2011
APS Division of Astrophysics Travel Award	2017, 2019
Bunny and Thomas Clark Graduate Scholarship Honorable Mention	2019

EXTERNAL FUNDING

PI of NSF Award PHY-2411849 – $969,640 2024/09-2027/08
"*WoU-MMA: Extremely High Energy Neutrinos in the IceCube Neutrino Observatory*"

PI of NSF Award PHY-2310125 – $148,000 2023/09-2025/08
"*Collaborative Research: WoU-MMA: Ultrahigh Energy Neutrinos with the Radio Neutrino Observatory in Greenland*"

PI of NSF Award AST-1903885 – $328,750 2019/08-2022/12
"*Unveiling the Ultra-High Energy Universe with Neutrinos*"

SELECTED PUBLICATIONS (h-index = 35)

By policy, the IceCube, ARA, and RNO-G collaborations list authors in alphabetical order. A full publication list is available at the end of the CV and at my ORCID or INSPIRE-HEP pages.

12. "A search for extremely-high-energy neutrinos and first constraints on the ultra-high-energy cosmic-ray proton fraction with IceCube"
R. Abbasi *et al.* for the IceCube Collaboration (incl. **B. A. Clark**)
Submitted to Phys Rev Lett. [arXiv:2502.01963]

11. "Search for Extremely High Energy Neutrinos with IceCube"
M. Meier, **B. A. Clark**, for the IceCube Collaboration
Proc. 38th International Cosmic Ray Conference PoS (ICRC2023)1149. [arXiv:2308.07656]

10. "A low-threshold ultrahigh-energy neutrino search with the Askaryan Radio Array"
P. Allison *et al.* for the ARA Collaboration (incl. **B. A. Clark**)
Physical Review D 105, 122006 (2022). [arXiv:2202.07080]

9. "toise: a framework to describe the performance of high-energy neutrino detectors"
J. van Santen, **B. A. Clark**, R. Halliday, S. Hallman, A. Nelles
JINST 17 (2022) T08009. [arXiv:2202.11120]

8. "Simulation and Sensitivity for a phased IceCube-Gen2 deployment"
B. A. Clark, R. Halliday for the IceCube-Gen2 Collaboration
Proc. 37th International Cosmic Ray Conference PoS (ICRC2021)1186. [arXiv:2107.08500]

7. "Sensitivity Studies for the IceCube-Gen2 radio array"
S. Hallmann, **B. A. Clark**, C. Glaser, D. Smith for the IceCube-Gen2 Collaboration
Proc. 37th International Cosmic Ray Conference PoS (ICRC2021)1183. [arXiv:2107.08910]

6. "The IceCube-Gen2 Neutrino Observatory"
B. A. Clark for the IceCube-Gen2 Collaboration
JINST 16 (2021) C100O7, Proc. 9th Very Large Volume Neutrino Telescope Workshop (VLVnT-2021). [arXiv:2108.05292]

5. "Constraints on the diffuse flux of ultrahigh energy neutrinos from four years of Askaryan Radio Array Data in two stations"
P. Allison *et al.* for the ARA Collaboration (incl. **B. A. Clark** as corresponding author)
Physical Review D 102, 043021 (2020). [arXiv:1912.00987]

4. "NuRadioMC: Simulating the radio emission of neutrinos from interaction to detector"
C. Glaser *et al.* (incl. **B. A. Clark**)
European Physical Journal C 80, 77 (2020). [arXiv:1906.01670]

3. "Design and Performance of an Interferometric Trigger Array for Radio Detection of High-Energy Neutrinos"
P. Allison *et al.* for the ARA Collaboration (incl. **B. A. Clark**)
Nuclear Instruments and Methods A 930, 112-125 (2019). [arXiv:1809.04573]

2. "Observation of Reconstructable Radio Emission Coincident with an X-Class Solar Flare in the Askaryan Radio Array Prototype Station."
P. Allison *et al.* for the ARA Collaboration (incl. **B. A. Clark** as corresponding author)
Submitted to Astroparticle Physics. [arXiv:1807.03335]

1. "Analyzing the Data from X-ray Polarimeters with Stokes Parameters."
F. Kislat, **B. Clark**, M. Bielicke, H. Krawczynski.
Astroparticle Physics 68, 45-51 (2015). [arXiv:1409.6214]

SCIENTIFIC TALKS & POSTERS

Invited Talks

14. Plenary, Lake Louise Winter Institute, Lake Louise CA 2025/03/06
13. Physics Colloquium, The Ohio State University, Columbus OH 2024/10/22
12. Plenary, TeV Particle Astrophysics, Chicago IL 2024/08/28
11. Physics Colloquium, University of Virginia, Charlottesville VA 2023/12/01
10. Seminar, Yale University Wright Lab, New Haven CT 2023/05/04
9. Seminar, IIHE at VUB/ULB, Brussels BE 2022/10/14
8. Plenary, 15th Intnl. Conf. on Particle Phys and Cosmology (PPC), St. Louis MO 2022/06/09
7. HEP Seminar, Univ. of Maryland, College Park MD 2022/02/23
6. Physics Colloquium, Drexel University, Philadelphia PA 2022/02/17
5. Physics & Astronomy Colloquium, Univ. of Delaware, Newark DE 2022/02/09
4. Physics & Astronomy Colloquium, Univ. of Kansas, Lawrence KS 2021/11/22
3. Plenary, Very Large Volume Neutrino Telescopes 2021 2021/05/19
2. Astronomy Seminar, Michigan State Univ., East Lansing MI 2019/10/23
1. Physics Colloquium, College of Wooster, Wooster OH 2016/10/04

Contributed Talks and Posters

18. Snowmass 2021 Community Summer Study, Seattle, WA 2022/07/19
17. APS April Meeting 2022, New York NY 2022/04/12
16. 20th Annual AAPF Symposium 2022/01/10
15. International Cosmic Ray Conference 2021, Berlin Germany 2021/07/20
14. APS April Meeting 2021 2021/04/19
13. 19th Annual AAPF Symposium 2021/02/09
12. NEUTRINO 2020, Chicago IL 2020/06/21
11. 18th Annual AAPF Symposium at the 235th AAS Meeting, Honolulu HI 2020/01/04
10. OSU CCAPP Seminar, Columbus OH. 2019/07/16
9. APS April Meeting 2019, Denver CO 2019/04/15
8. Ohio Section of the APS Fall 2018 Meeting, Toledo OH 2018/09/29
7. OSU CCAPP Seminar, Columbus OH 2018/05/22
6. APS April Meeting 2018, Columbus OH 2018/04/16
5. TeV Particle Astrophysics, Columbus OH 2017/08/11
4. APS April Meeting 2017, Washington DC 2017/01/31
3. Computing in High Energy Astropart. Phys. Research 2016, Columbus OH. 2016/05/26
2. OSU Physics Summer Seminar Series, Columbus OH 2016/04/23
1. Ohio Section of the APS Spring 2016 Meeting, Dayton OH 2016/04/09

LEADERSHIP and SERVICE

Scientific Leadership

IceCube Collaboration Diffuse Working Group Convener	2022-Present
Early Career Scientists Representative, the IceCube Collaboration	January 2021-January 2023
ARA Analysis Coordinator	2020-2023
ARA Operations Coordinator	2018-2019

Professional Activities

Reviewer in a NSF Astronomy and Asrophysics Panel	2024-Present
Reviewer in a NASA Peer Review Panel	2021-2022
Peer Reviewer, Journal of Astroparticle Physics	2022-Present
Peer Reviewer, Journal of Instrumentation	2021-Present

University and Departmental Service

Co-Chair, UMD Physics Departmental Colloquium Committee	2023-Present
Member, UMD Physics Departmental Laboratory Committee	2023-Present
Member, UMD Physics Departmental Admissions Committee	2023-Present
Member, OSU Physics Climate and Diversity Committee	January 2017-May 2018
Officer, OSU Physics Graduate Student Council	October 2014-May 2017

MENTORSHIP and ADVISING

Postdoctoral Researchers

Steve Sclafani	2023-Present

PhD Research Students

Taylor St Jean	2024-Present
Aishwarya Vijai	2022-Present

Undergraduate Research Students

Zoe Brunton	2024-Present
Rohan Panchwagh	2023-Present
Santiago Sued	2024-Present

Committee Membership

Eli Mazrachi (PhD)	March 2024
Lucas Smith (PhD)	2023-Present
Elijah Willox (PhD)	April 2024
Zelong Zhang (PhD at SBU)	February 2025

TEACHING

The University of Maryland, College Park, MD

Physics 265: Introduction to Scientific Programming (Spring 2025)
Physics 276: Experimental Physics II (Spring 2023, Spring 2024, Fall 2024)

The Ohio State University, Columbus, OH

Astronomy 1143: Stars, Galaxies, and Cosmology (Spring 2016)
Physics 1251: E&M, Optics, and Quantum Mechanics (Fall 2015)

OUTREACH

Talk at UMD Society for Physics Student Meeting	November 2024
Panel Member and Talk at CU2MIP	April 2024
Talk at UMD PHYS 170 "Professional Physics" Seminar	September 2023
Laboratory Tour for UMD Departmental "Toolkit for Success" Program	July 2023
Outreach at Maryland Day	April 2023
Talk at UMD Graduate Survey Seminar	March 2023
Talk, MSU Science Festival	April 2021
Talk, Making Space for All	June 2020
Talk, Astronomy on Tap Lansing	October 2019, August 2021
Coordinator for ASPIRE Workshop for High School Women, OSU	July 2015-June 2019
Volunteer Judge, Ohio State Science Day	2015-2019
Talk, Columbus Science Pub	May 2018
Talk, The Wellington School, Columbus, OH	April 2018
Volunteer Judge, OSU Denman Undergraduate Research Forum	2016

FULL PUBLICATION LIST

172. R. Abbasi et al. "Seasonal Variations of the Atmospheric Muon Neutrino Spectrum measured with IceCube". In: (Feb. 2025). arXiv: 2502.17890 [astro-ph.HE].

171. R. Abbasi et al. "Measurement of the inelasticity distribution of neutrino-nucleon interactions for $\mathbf{80\ GeV < E_\nu < 560\ GeV}$ with IceCube DeepCore". In: (Feb. 2025). arXiv: 2502.13299 [hep-ex].

170. R. Abbasi et al. "Search for Heavy Neutral Leptons with IceCube DeepCore". In: (Feb. 2025). arXiv: 2502.09454 [hep-ex].

169. R. Abbasi et al. "A search for extremely-high-energy neutrinos and first constraints on the ultra-high-energy cosmic-ray proton fraction with IceCube". In: (Feb. 2025). arXiv: 2502.01963 [astro-ph.HE].

168. R. Abbasi et al. "Time-Integrated Southern-Sky Neutrino Source Searches with 10 Years of IceCube Starting-Track Events at Energies Down to 1 TeV". In: (Jan. 2025). arXiv: 2501.16440 [astro-ph.HE].

167. R. Abbasi et al. "Search for neutrino doublets and triplets using 11.4 years of IceCube data". In: *Astrophys. J.* 981 (2025), p. 159. DOI: 10.3847/1538-4357/adb312. arXiv: 2501.09276 [astro-ph.HE].

166. R. Abbasi et al. "Search for dark matter from the center of the Earth with ten years of IceCube data". In: (Dec. 2024). arXiv: 2412.12972 [astro-ph.HE].

165. R. Abbasi et al. "Observation of Cosmic-Ray Anisotropy in the Southern Hemisphere with 12 yr of Data Collected by the IceCube Neutrino Observatory". In: *Astrophys. J.* 981.2 (2025), p. 182. DOI: 10.3847/1538-4357/adb1de. arXiv: 2412.05046 [astro-ph.HE].

164. S. Agarwal et al. "Instrument design and performance of the first seven stations of RNO-G". In: (Nov. 2024). arXiv: 2411.12922 [astro-ph.IM].

163. S. Ali et al. "A search for the ultra high energy neutrinos with the low threshold phased array trigger system of the Askaryan Radio Array". In: (Sept. 2024). arXiv: 2409.19847 [astro-ph.HE].

162. S. Ali et al. "ARA-Next: a new DAQ and trigger architecture for the Askaryan Radio Array". In: (Sept. 2024). arXiv: 2409.07634 [astro-ph.HE].

161. S. Ali et al. "Progress towards an array-wide diffuse UHE neutrino search with the Askaryan Radio Array". In: (Sept. 2024). arXiv: 2409.03854 [astro-ph.IM].

160. R. Abbasi et al. "Search for a light sterile neutrino with 7.5 years of IceCube DeepCore data". In: *Phys. Rev. D* 110.7 (2024), p. 072007. DOI: 10.1103/PhysRevD.110.072007. arXiv: 2407.01314 [hep-ex].

159. R. Abbasi et al. "Probing the Connection between IceCube Neutrinos and MOJAVE AGN". In: *Astrophys. J.* 973.2 (2024), p. 97. DOI: 10.3847/1538-4357/ad643d. arXiv: 2407.01351 [astro-ph.HE].

158. R. Abbasi et al. "IceCube Search for Neutrino Emission from X-ray Bright Seyfert Galaxies". In: (June 2024). arXiv: 2406.07601 [astro-ph.HE].

157. R. Abbasi et al. "Search for Neutrino Emission from Hard X-Ray AGN with IceCube". In: *Astrophys. J.* 981.2 (2025), p. 131. DOI: 10.3847/1538-4357/ada94b. arXiv: 2406.06684 [astro-ph.HE].

156. R. Abbasi et al. "Exploration of mass splitting and muon/tau mixing parameters for an eV-scale sterile neutrino with IceCube". In: *Phys. Lett. B* 858 (2024), p. 139077. DOI: 10.1016/j.physletb.2024.139077. arXiv: 2406.00905 [hep-ex].

155. S. Ali et al. "Modeling the refractive index profile n(z) of polar ice for ultra-high energy neutrino experiments". In: (June 2024). arXiv: 2406.00857 [astro-ph.IM].

154. R. Abbasi et al. "Search for an eV-Scale Sterile Neutrino Using Improved High-Energy $\nu\mu$ Event Reconstruction in IceCube". In: *Phys. Rev. Lett.* 133.20 (2024), p. 201804. DOI: 10.1103/PhysRevLett.133.201804. arXiv: 2405.08070 [hep-ex].

153. R. Abbasi et al. "Methods and stability tests associated with the sterile neutrino search using improved high-energy $\nu\mu$ event reconstruction in IceCube". In: *Phys. Rev. D* 110.9 (2024), p. 092009. DOI: 10.1103/PhysRevD.110.092009. arXiv: 2405.08077 [hep-ex].

152. R. Alfaro et al. "Search for Joint Multimessenger Signals from Potential Galactic Cosmic-Ray Accelerators with HAWC and IceCube". In: *Astrophys. J.* 976.1 (2024), p. 8. DOI: 10.3847/1538-4357/ad812f. arXiv: 2405.03817 [astro-ph.HE].

151. R. Abbasi et al. "Measurement of Atmospheric Neutrino Oscillation Parameters Using Convolutional Neural Networks with 9.3 Years of Data in IceCube DeepCore". In: *Phys. Rev. Lett.* 134.9 (2025), p. 091801. DOI: 10.1103/PhysRevLett.134.091801. arXiv: 2405.02163 [hep-ex].

150. R. Abbasi et al. "Acceptance Tests of more than 10 000 Photomultiplier Tubes for the multi-PMT Digital Optical Modules of the IceCube Upgrade". In: *JINST* 19.07 (2024), P07038. DOI: 10.1088/1748-0221/19/07/P07038. arXiv: 2404.19589 [astro-ph.IM].

149. S. Agarwal et al. "Solar flare observations with the Radio Neutrino Observatory Greenland (RNO-G)". In: *Astropart. Phys.* 164 (2025), p. 103024. DOI: 10.1016/j.astropartphys.2024.103024. arXiv: 2404.14995 [astro-ph.SR].

148. R. Abbasi et al. "Improved modeling of in-ice particle showers for IceCube event reconstruction". In: *JINST* 19.06 (2024), P06026. DOI: 10.1088/1748-0221/19/06/P06026. arXiv: 2403.02470 [astro-ph.HE].

147. R. Abbasi et al. "Characterization of the astrophysical diffuse neutrino flux using starting track events in IceCube". In: *Phys. Rev. D* 110.2 (2024), p. 022001. DOI: 10.1103/PhysRevD.110.022001. arXiv: 2402.18026 [astro-ph.HE].

146. R. Abbasi et al. "Citizen science for IceCube: Name that Neutrino". In: *Eur. Phys. J. Plus* 139.6 (2024), p. 533. DOI: 10.1140/epjp/s13360-024-05179-y. arXiv: 2401.11994 [astro-ph.HE].

145. R. Abbasi et al. "Search for 10–1000 GeV Neutrinos from Gamma-Ray Bursts with IceCube". In: *Astrophys. J.* 964.2 (2024), p. 126. DOI: 10.3847/1538-4357/ad220b. arXiv: 2312.11515 [astro-ph.HE].

144. R. Abbasi et al. "All-sky Search for Transient Astrophysical Neutrino Emission with 10 Years of IceCube Cascade Events". In: *Astrophys. J.* 967.1 (2024), p. 48. DOI: 10.3847/1538-4357/ad3730. arXiv: 2312.05362 [astro-ph.HE].

143. N. Kurahashi Neilson et al. "Highlights from the IceCube Neutrino Observatory". In: *PoS* ICRC2023 (2024), p. 017. DOI: 10.22323/1.444.0017. arXiv: 2310.12840 [astro-ph.HE].

142. R. Abbasi et al. "Search for Continuous and Transient Neutrino Emission Associated with IceCube's Highest-energy Tracks: An 11 yr Analysis". In: *Astrophys. J.* 964.1 (2024), p. 40. DOI: 10.3847/1538-4357/ad18d6. arXiv: 2309.12130 [astro-ph.HE].

141. M. F. H. Seikh et al. "Calibration and Physics with ARA Station 1: A Unique Askaryan Radio Array Detector". In: *PoS* ICRC2023 (2023), p. 1163. DOI: 10.22323/1.444.1163. arXiv: 2308.07292 [astro-ph.IM].

140. R. Abbasi et al. "Search for Galactic Core-collapse Supernovae in a Decade of Data Taken with the IceCube Neutrino Observatory". In: *Astrophys. J.* 961.1 (2024), p. 84. DOI: 10.3847/1538-4357/ad07d1. arXiv: 2308.01172 [astro-ph.HE].

139. W. Hou et al. "Sensitivity of the IceCube-Gen2 Surface Array for Cosmic-Ray Anisotropy Studies". In: *PoS* ICRC2023 (2023), p. 354. DOI: 10.22323/1.444.0354. arXiv: 2307.14655 [astro-ph.HE].

138. R. Abbasi et al. "IceCube search for neutrinos from novae". In: *PoS* ICRC2023 (2023), p. 1560. DOI: 10.22323/1.444.1560. arXiv: 2307.15372 [astro-ph.HE].

137. M. Dittmer et al. "Performance studies on new 4" photomultiplier types intended for IceCube-Gen2 optical modules". In: *PoS* ICRC2023 (2023), p. 985. DOI: 10.22323/1.444.0985. arXiv: 2307.14589 [astro-ph.IM].

136. F. Schlüter et al. "Estimating the coincidence rate between the optical and radio array of IceCube-Gen2". In: *PoS* ICRC2023 (2023), p. 1022. DOI: 10.22323/1.444.1022. arXiv: 2308.00961 [astro-ph.HE].

135. A. Ishihara et al. "The next generation neutrino telescope: IceCube-Gen2". In: *PoS* ICRC2023 (2023), p. 994. DOI: 10.22323/1.444.0994. arXiv: 2308.09427 [astro-ph.HE].

134. Y. Makino et al. "Mechanical design of the optical modules intended for IceCube-Gen2". In: *PoS* ICRC2023 (2023), p. 979. DOI: 10.22323/1.444.0979. arXiv: 2308.09786 [astro-ph.IM].

133. T. Glüsenkamp et al. "VAE-based latent-space classification of RNO-G data". In: *PoS* ICRC2023 (2023), p. 1056. DOI: 10.22323/1.444.1056. arXiv: 2309.16401 [astro-ph.HE].

132. N. Lad et al. "Sensitivity of IceCube-Gen2 to measure flavor composition of Astrophysical neutrinos". In: *PoS* ICRC2023 (2023), p. 1123. DOI: 10.22323/1.444.1123. arXiv: 2308.15220 [astro-ph.HE].

131. R. Abbasi et al. "Searching for High-energy Neutrino Emission from Seyfert Galaxies in the Northern Sky with IceCube". In: *PoS* ICRC2023 (2023), p. 1052. DOI: 10.22323/1.444.1052. arXiv: 2308.00024 [astro-ph.HE].

130. A. Coleman et al. "Enhancing the Sensitivity of RNO-G Using a Machine-learning Based Trigger". In: *PoS* ICRC2023 (2023), p. 1100. DOI: 10.22323/1.444.1100.

129. E. Oberla et al. "Low-Power Radiofrequency Systems for the RNO-G Project". In: *PoS* ICRC2023 (2023), p. 1171. DOI: 10.22323/1.444.1171.

128. M. S. Muzio et al. "Multimessenger Potential of the Radio Neutrino Observatory in Greenland". In: *PoS* ICRC2023 (2023), p. 1485. DOI: 10.22323/1.444.1485. arXiv: 2308.07224 [astro-ph.HE].

127. R. Abbasi et al. "Search for decoherence from quantum gravity with atmospheric neutrinos". In: *Nature Phys.* 20.6 (2024), pp. 913–920. DOI: 10.1038/s41567-024-02436-w. arXiv: 2308.00105 [hep-ex].

126. R. Abbasi et al. "The IceCube Collaboration – Contributions to the 38th International Cosmic Ray Conference (ICRC2023)". In: *38th International Cosmic Ray Conference*. July 2023. arXiv: 2307.13047 [astro-ph.HE].

125. R. Abbasi et al. "Search for Extended Sources of Neutrino Emission in the Galactic Plane with IceCube". In: *Astrophys. J.* 956.1 (2023), p. 20. DOI: 10.3847/1538-4357/acf713. arXiv: 2307.07576 [astro-ph.HE].

124. R. Abbasi et al. "Observation of high-energy neutrinos from the Galactic plane". In: *Science* 380.6652 (2023), adc9818. DOI: 10.1126/science.adc9818. arXiv: 2307.04427 [astro-ph.HE].

123. J. Henrichs et al. "Searching for air showers with RNO-G". In: *PoS* ARENA2022 (2023), p. 007. DOI: 10.22323/1.424.0007.

122. J. A. Aguilar et al. "The Radio Neutrino Observatory Greenland RNO-G: Status update". In: *PoS* ARENA2022 (2023), p. 005. DOI: 10.22323/1.424.0005.

121. R. Abbasi et al. "Search for Correlations of High-energy Neutrinos Detected in IceCube with Radio-bright AGN and Gamma-Ray Emission from Blazars". In: *Astrophys. J.* 954.1 (2023), p. 75. DOI: 10.3847/1538-4357/acdfcb. arXiv: 2304.12675 [astro-ph.HE].

120. R. Abbasi et al. "Measurement of atmospheric neutrino mixing with improved IceCube DeepCore calibration and data processing". In: *Phys. Rev. D* 108.1 (2023), p. 012014. DOI: 10.1103/PhysRevD.108.012014. arXiv: 2304.12236 [hep-ex].

119. R. Abbasi et al. "IceCat-1: The IceCube Event Catalog of Alert Tracks". In: *Astrophys. J. Suppl.* 269.1 (2023), p. 25. DOI: 10.3847/1538-4365/acfa95. arXiv: 2304.01174 [astro-ph.HE].

118. R. Abbasi et al. "A Search for IceCube Sub-TeV Neutrinos Correlated with Gravitational-wave Events Detected By LIGO/Virgo". In: *Astrophys. J.* 959.2 (2023). [Erratum: Astrophys.J. 971, 192 (2024)], p. 96. DOI: 10.3847/1538-4357/aceefc. arXiv: 2303.15970 [astro-ph.HE].

117. R. Abbasi et al. "Search for neutrino lines from dark matter annihilation and decay with IceCube". In: *Phys. Rev. D* 108.10 (2023), p. 102004. DOI: 10.1103/PhysRevD.108.102004. arXiv: 2303.13663 [astro-ph.HE].

116. R. Abbasi et al. "Observation of seasonal variations of the flux of high-energy atmospheric neutrinos with IceCube". In: *Eur. Phys. J. C* 83.9 (2023), p. 777. DOI: 10.1140/epjc/s10052-023-11679-5. arXiv: 2303.04682 [astro-ph.HE].

115. R. Abbasi et al. "Constraining High-energy Neutrino Emission from Supernovae with IceCube". In: *Astrophys. J. Lett.* 949.1 (2023), p. L12. DOI: 10.3847/2041-8213/acd2c9. arXiv: 2303.03316 [astro-ph.HE].

114. J. A. Aguilar et al. "Triboelectric backgrounds to radio-based polar ultra-high energy neutrino (UHEN) experiments". In: *Astropart. Phys.* 145 (2023), p. 102790. DOI: 10.1016/j.astropartphys.2022.102790.

113. L. Pyras et al. "The Radio Neutrino Observatory Greenland: Status Update and Prospect for Air Showers". In: *PoS* ECRS (2023), p. 088. DOI: 10.22323/1.423.0088.

112. R. Abbasi et al. "Limits on Neutrino Emission from GRB 221009A from MeV to PeV Using the IceCube Neutrino Observatory". In: *Astrophys. J. Lett.* 946.1 (2023). [Erratum: Astrophys.J.Lett. 970, L43 (2024), Erratum: Astrophys.J. 970, L43 (2024)], p. L26. DOI: 10.3847/2041-8213/acc077. arXiv: 2302.05459 [astro-ph.HE].

111. R. Abbasi et al. "D-Egg: a dual PMT optical module for IceCube". In: *JINST* 18.04 (2023), P04014. DOI: 10.1088/1748-0221/18/04/P04014. arXiv: 2212.14526 [astro-ph.IM].

110. R. Abbasi et al. "A Search for Coincident Neutrino Emission from Fast Radio Bursts with Seven Years of IceCube Cascade Events". In: *Astrophys. J.* 946.2 (2023), p. 80. DOI: 10.3847/1538-4357/acbea0. arXiv: 2212.06702 [astro-ph.HE].

109. R. Abbasi et al. "Search for sub-TeV Neutrino Emission from Novae with IceCube-DeepCore". In: *Astrophys. J.* 953.2 (2023). [Erratum: Astrophys.J. 971, (2024)], p. 160. DOI: 10.3847/1538-4357/acdc1b. arXiv: 2212.06810 [astro-ph.HE].

108. R. Abbasi et al. "Searches for Neutrinos from Large High Altitude Air Shower Observatory Ultra-high-energy γ-Ray Sources Using the IceCube Neutrino Observatory". In: *Astrophys. J. Lett.* 945.1 (2023), p. L8. DOI: 10.3847/2041-8213/acb933. arXiv: 2211.14184 [astro-ph.HE].

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