Dr. Manuel Meyer | Publication List

42 publications in peer-reviewed journals with major contribution (18 as corresponding author). Additionally, co-author of more than 65 publications of the H.E.S.S. collaboration, 25 publications of the *Fermi*-LAT collaboration, 28 conference proceedings, and 5 white papers. According to NASA ADS, the publications have in total more than 11,500 citations with an h index of 51 (selected publications below have an h index of 24 with more than 2,900 citations). A publication list including all collaboration papers can be found on ORCID. Please note that, according to the policies of the scientific Collaborations of which I am a member, author lists of collaboration papers are in alphabetical order. Corresponding author publications are marked with ★. Publications led by students I have supervised are marked with 🎓. Papers with ≥ 100 citations are marked with 🚀.

Peer Reviewed Publications

[42] S. Abe et al. (CTAO Consortium including M. **Meyer**), *Dark matter line searches with the Cherenkov Telescope Array*, *JCAP*, Vol. 2024, No. 7, 047, p. 047, 2024, arXiv: 2403.04857 [hep-ph]

[41] ★ F. Aharonian et al. (H.E.S.S. Collaboration, including M. **Meyer**), *Spectrum and extension of the inverse-Compton emission of the Crab Nebula from a combined Fermi-LAT and H.E.S.S. analysis*, *A&A*, Vol. 686, A308 2024, arXiv: 2403.12608 [astro-ph.HE]

[40] 🎓 F. Aharonian et al. (H.E.S.S. Collaboration, including M. **Meyer**), *Curvature in the very-high energy gamma-ray spectrum of M 87*, *A&A*, Vol. 685, A96 2024, arXiv: 2402.13330 [astro-ph.HE]

[39] J. Tjemsland, M. **Meyer**, and F. Vazza, *Constraining the Astrophysical Origin of Intergalactic Magnetic Fields*, *ApJ*, Vol. 963, No. 2, 135, p. 135, 2024, arXiv: 2311.04273 [astro-ph.HE]

[38] ★ M. **Meyer** et al., *A First Application of Machine and Deep Learning for Background Rejection in the ALPS II TES Detector*, *Annalen der Physik*, Vol. 536, No. 1, 2200545 2024, arXiv: 2304.08406 [hep-ex]

[37] ★ F. Aharonian et al. (H.E.S.S. Collaboration, including M. **Meyer**), *Constraints on the Intergalactic Magnetic Field Using Fermi-LAT and H.E.S.S. Blazar Observations*, *ApJL*, Vol. 950, No. 2, L16, p. L16, 2023, arXiv: 2306.05132 [astro-ph.HE]

[36] 🎓 J. Davies, M. **Meyer**, and G. Cotter, *Constraints on axionlike particles from a combined analysis of three flaring Fermi flat-spectrum radio quasars*, *Phys. Rev. D*, Vol. 107, No. 8, 083027, p. 083027, 2023, arXiv: 2211.03414 [astro-ph.HE]

[35] J. Rubiera Gimeno et al. (including M. **Meyer**), *The TES detector of the ALPS II experiment*, *Nuclear Instruments and Methods in Physics Research A*, Vol. 1046, 167588, p. 167588, 2023

[34] ★ J. Biteau and M. **Meyer**, *Gamma-Ray Cosmology and Tests of Fundamental Physics*, *Galaxies*, Vol. 10, No. 2, p. 39, 2022, arXiv: 2202.00523 [astro-ph.CO].

[33] 🎓 J. Davies, M. **Meyer**, and G. Cotter, *Relevance of photon-photon dispersion within the jet for blazar axionlike particle searches*, *Phys. Rev. D*, Vol. 105, No. 2, 023017, p. 023017, 2022, arXiv: 2112.08194 [astro-ph.HE].

[32] 🎓 M. Crnogorčević, R. Caputo, M. **Meyer**, N. Omodei, and M. Gustafsson, *Searching for Axion-Like Particles from Core-Collapse Supernovae with Fermi LAT's Low Energy Technique*, *Phys. Rev. D*, Vol. 104, No. 10, 103001, p. 103001, 2021, arXiv: 2109.05790 [astro-ph.HE].

[31] ★ M. **Meyer**, M. Petropoulou, and I. Christie, *The Observability of Plasmoid-powered γ-Ray Flares with the Fermi Large Area Telescope*, *ApJ*, Vol. 912, No. 1, 40, p. 40, 2021, arXiv: 2012.09944 [astro-ph.HE].

[30] ★ H. Abdalla et al. (CTA Consortium including M. **Meyer**), *Sensitivity of the Cherenkov Telescope Array for probing cosmology and fundamental physics with gamma-ray propagation*, *JCAP*, Vol. 2021, No. 2, 048, p. 048, 2021, arXiv: 2010.01349 [astro-ph.HE].

[29] J. Davies, M. **Meyer**, and G. Cotter, *Relevance of jet magnetic field structure for blazar axionlike particle searches*, *Phys. Rev. D*, Vol. 103, No. 2, 023008, p. 023008, 2021, arXiv: 2011.08123 [astro-ph.HE].

[28] H. Abdalla et al. (CTA Consortium including M. **Meyer**), *Sensitivity of the Cherenkov Telescope Array to a dark matter signal from the Galactic centre*, *JCAP*, Vol. 2021, No. 1, 057, p. 057, 2021, arXiv: 2007.16129 [astro-ph.HE].

[27] H. Abdalla et al. (H.E.S.S. & MAGIC Collaborations including M. **Meyer**), *Observation of a sudden cessation of a very-high-energy γ-ray flare in PKS 1510−089 with H.E.S.S. and MAGIC in May 2016*, *A&A*, Vol. 648, A23, A23, 2021, arXiv: 2012.10254 [astro-ph.HE].

[26] R. Buehler, G. Gallardo, G. Maier, A. Dominguez, M. López, and M. **Meyer**, *Search for the imprint of axion-like particles in the highest-energy photons of hard γ-ray blazars*, *JCAP*, Vol. 2020, No. 9, 027, p. 027, 2020, arXiv: 2004.09396 [astro-ph.HE]

[25] ★ M. **Meyer** and T. Petrushevska, *Search for Axionlike-Particle-Induced Prompt γ-Ray Emission from Extragalactic Core-Collapse Supernovae with the Fermi Large Area Telescope*, *Phys. Rev. Lett.*, Vol. 124, No. 23, 231101, p. 231101, 2020, arXiv: 2006.06722 [astro-ph.HE]

[24] H. Chiaro et al. (including M. **Meyer**), *Identifying TeV Source Candidates among Fermi-LAT Unclassified Blazars*, *ApJ*, Vol. 887, No. 1, 104, p. 104, 2019, arXiv: 1909.10834 [astro-ph.HE]

[23] H. Abdalla et al. (H.E.S.S. Collaboration including M. **Meyer**), *Constraints on the emission region of 3C 279 during strong flares in 2014 and 2015 through VHE γ-ray observations with H.E.S.S.*, *A&A*, Vol. 627, A159, A159, 2019, arXiv: 1906.04996 [astro-ph.HE]

[22] ★ M. **Meyer**, J. D. Scargle, and R. D. Blandford, *Characterizing the gamma-ray variability of the brightest flat spectrum radio quasars observed with the Fermi LAT*, *ApJ*, Vol. 877, No. 1, 39, p. 39, 2019, arXiv: 1902.02291 [astro-ph.HE]

[21] ★ M. Ackermann et al. (*Fermi*-LAT Collaboration, including M. **Meyer**), *The Search for Spatial Extension in High-latitude Sources Detected by the Fermi Large Area Telescope*, *ApJS*, Vol. 237, 32, p. 32, 2018, arXiv: 1804.08035 [astro-ph.HE]

[20] M. Ackermann et al. (*Fermi*-LAT Collaboration, including M. **Meyer**), *Search for Gamma-Ray Emission from Local Primordial Black Holes with the Fermi Large Area Telescope*, *ApJ*, Vol. 857, 49, p. 49, 2018

[19] A. Desai et al. (including M. **Meyer**), *Probing the EBL evolution at high redshift using GRBs detected with the Fermi-LAT*, *ApJ*, Vol. 850, No. 1, p. 73, 2017, arXiv: 1710.02535 [astro-ph.HE]

[18] H. Abdalla et al. (H.E.S.S. Collaboration, including M. **Meyer**), *Measurement of the EBL spectral energy distribution using the VHE gamma-ray spectra of H.E.S.S. blazars*, *A&A*, Vol. 606, A59, 2017, arXiv: 1707.06090 [astro-ph.HE]

[17] ★ C. Balázs, J. Conrad, B. Farmer, T. Jacques, T. Li, M. **Meyer**, F. S. Queiroz, and M. A. Sánchez-Conde, *Sensitivity of the Cherenkov Telescope Array to the detection of a dark matter signal in comparison to direct detection and collider experiments*, *Phys. Rev. D*, Vol. 96, p. 083002, 2017, arXiv: 1706.01505 [astro-ph.HE].

[16] ★ M. **Meyer**, M. Giannotti, A. Mirizzi, M. Sánchez-Conde, and J. Conrad, *The Fermi Large Area Telescope as a Galactic Supernovae Axionscope*, *Phys. Rev. Lett.*, Vol. 118, No. 1, p. 011103, 2017, arXiv: 1609.02350 [astro-ph.HE].

[15] A. Albert et al. (*Fermi*-LAT and DES Collaborations, including M. **Meyer**), *Searching for Dark Matter Annihilation in Recently Discovered Milky Way Satellites with Fermi-LAT*, *ApJ*, Vol. 834, No. 2, p. 110, 2017, arXiv: 1611.03184 [astro-ph.HE].

[14] ★ M. **Meyer**, J. Conrad, and H. Dickinson, *Sensitivity of the Cherenkov Telescope Array to the Detection of Intergalactic Magnetic Fields*, *ApJ*, Vol. 827, No. 2, p. 147, 2016, arXiv: 1603.03431 [astro-ph.HE].

[13] 🚀 E. Charles et al. (including M. **Meyer**), *Sensitivity projections for dark matter searches with the Fermi large area telescope*, *Phys. Rep.*, Vol. 636, pp. 1–46, 2016, arXiv: 1605.02016 [astro-ph.HE].

[12] 🚀 ★ M. Ajello et al. (*Fermi*-LAT Collaboration, including M. **Meyer**), *Search for Spectral Irregularities due to Photon-Axionlike-Particle Oscillations with the Fermi Large Area Telescope*, *Phys. Rev. Lett. (Editor's suggestion)*, Vol. 116, No. 16, 161101 2016, arXiv: 1603.06978 [astro-ph.HE].

[11] B. Berenji, J. Gaskins, and M. **Meyer**, *Constraints on axions and axionlike particles from Fermi Large Area Telescope observations of neutron stars*, *Phys. Rev. D*, Vol. 93, No. 4, 045019 2016, arXiv: 1602.00091 [astro-ph.HE].

[10] Aleksić et al. (MAGIC Collaboration, with M. **Meyer**), *Measurement of the Crab Nebula spectrum over three decades in energy with the MAGIC telescopes*, *Journal of High Energy Astrophysics*, Vol. 5, pp. 30–38, 2015, arXiv: 1406.6892 [astro-ph.HE].

[9] ★ M. **Meyer** and J. Conrad, *Sensitivity of the Cherenkov Telescope Array to the detection of axion-like particles at high gamma-ray opacities*, *JCAP*, Vol. 12, 016, p. 016, 2014, arXiv: 1410.1556 [astro-ph.HE].

[8] ★ M. **Meyer**, D. Montanino, and J. Conrad, *On detecting oscillations of gamma rays into axion-like particles in turbulent and coherent magnetic fields*, *JCAP*, Vol. 9, 003, p. 003, 2014, arXiv: 1406.5972 [astro-ph.HE].

[7] 🚀 A. Abramowski et al. (H.E.S.S. Collaboration including M. **Meyer**), *Constraints on axionlike particles with H.E.S.S. from the irregularity of the PKS 2155-304 energy spectrum*, *Phys. Rev. D*, Vol. 88, No. 10, 102003, p. 102003, 2013, arXiv: 1311.3148 [astro-ph.HE].

[6] 🚀 ★ M. **Meyer**, D. Horns, and M. Raue, *First lower limits on the photon-axion-like particle coupling from very high energy gamma-ray observations*, *Phys. Rev. D*, Vol. 87, No. 3, 035027 2013, arXiv: 1302.1208 [astro-ph.HE].

[5] 🚀 D. Horns et al. (including M. **Meyer**), *Hardening of TeV gamma spectrum of active galactic nuclei in galaxy clusters by conversions of photons into axionlike particles*, *Phys. Rev. D*, Vol. 86, No. 7, 075024 2012, arXiv: 1207.0776 [astro-ph.HE].

[4] M. Raue and M. **Meyer**, *Probing the peak of the star formation rate density with the extragalactic background light*, *MNRAS*, Vol. 426, pp. 1097–1106, 2012, arXiv: 1203.0310 [astro-ph.CO].

[3] ★ M. **Meyer**, M. Raue, D. Mazin, and D. Horns, *Limits on the extragalactic background light in the Fermi era*, *A&A*, Vol. 542, A59 2012, arXiv: 1202.2867 [astro-ph.CO].

[2] 🚀 D. Horns and M. **Meyer**, *Indications for a pair-production anomaly from the propagation of VHE gamma-rays*, *JCAP*, Vol. 2, 033, p. 033, 2012, arXiv: 1201.4711 [astro-ph.CO].

[1] 🚀 ★ M. **Meyer**, D. Horns, and H.-S. Zechlin, *The Crab Nebula as a standard candle in very high-energy astrophysics*, *A&A*, Vol. 523, A2 2010, arXiv: 1008.4524 [astro-ph.HE].

❯❯❯ White Papers

[5] ★ F. Iocco et al. (CTA Consortium, including M. **Meyer**), *Probing Dark Matter and Fundamental Physics with the Cherenkov Telescope Array*, *ArXiv e-prints* 2021, arXiv: 2106.03582 [astro-ph.HE]

[4] 🚀 E. Armengaud et al. (including M. **Meyer**), *Physics potential of the International Axion Observatory (IAXO)*, *JCAP*, Vol. 2019, No. 6, 047, p. 047, 2019, arXiv: 1904.09155 [hep-ph]

[3] P. S. Ray et al. (including M. **Meyer**), *STROBE-X: X-ray Timing and Spectroscopy on Dynamical Timescales from Microseconds to Years*, *ArXiv e-prints* 2019, arXiv: 1903.03035 [astro-ph.IM]

[2] A. Drlica-Wagner et al. (including M. **Meyer**), *Probing the Fundamental Nature of Dark Matter with the Large Synoptic Survey Telescope*, *ArXiv e-prints* 2019, arXiv: 1902.01055 [astro-ph.CO]

[1] The CTA Consortium, (including M. **Meyer**), *Science with the Cherenkov Telescope Array*, *World Scientific* 2018, arXiv: 1709.07997 [astro-ph.HE]

Conference Proceedings

[28] C. Schwemmbauer et al. (including M. **Meyer**), *Direct dark matter searches using ALPS II's TES detection system*, *PoS*, Vol. EPS-HEP2023, p. 120, 2024

[27] J. Rubiera Gimeno et al. (including M. **Meyer**), *A TES system for ALPS II - Status and Prospects*, *PoS*, Vol. EPS-HEP2023, p. 567, 2024

[26] ★ M. **Meyer**, J. Davies, and J. Kuhlmann, *gammaALPs: An open-source python package for computing photon-axion-like-particle oscillations in astrophysical environments*, *PoS*, Vol. ICRC2021, p. 557, 2021, arXiv: 2108.02061 [astro-ph.HE]

[25] ★ M. de Bony de Lavergne et al. (H.E.S.S. Collaboration, including M. **Meyer**), *Detection of new Extreme BL Lac objects with H.E.S.S. and Swift XRT*, *PoS*, Vol. ICRC2021, p. 823, 2021, arXiv: 2108.02232 [astro-ph.HE]

[24] ★ M. **Meyer** and T. Petrushevska, *Extending the sample of core-collapse supernovae for searches of axion-like-particle induced gamma-ray bursts with the Fermi LAT*, *PoS*, Vol. ICRC2021, p. 510, 2021, arXiv: 2108.02069 [astro-ph.HE]

[23] H. Vogel, R. Laha, and M. **Meyer**, *Diffuse axion-like particle searches*, *PoS*, Vol. NOW2018, p. 091, 2019, arXiv: 1712.01839 [hep-ph]

[22] M. Zacharias et at. (including M. **Meyer**), *The VHE Gamma-Ray View of the FSRQ PKS 1510-089*, *ArXiv e-prints* 2019, arXiv: 1903.08535 [astro-ph.HE].

[21] ★ F. Gaté et al. (CTA Consortium, including M. **Meyer**), *Studying cosmological γ-ray propagation with the Cherenkov Telescope Array*, *PoS*, Vol. ICRC2017 2017, arXiv: 1709.04185 [astro-ph.HE].

[20] M. Wood, J. Biteau, R. Caputo, M. Di Mauro, and M. **Meyer** (*Fermi*-LAT Collaboration), *Preliminary Results of the Fermi High-Latitude Extended Source Catalog*, *PoS* 2017, arXiv: 1709.06213 [astro-ph.HE].

[19] ★ R. Caputo, M. **Meyer**, and M. Sánchez-Conde (AMEGO Team), *AMEGO: Dark Matter Prospects*, *PoS*, Vol. ICRC2017, p. 910, 2017.

[18] C. Romoli et al. (HESS Collaboration, including M. **Meyer**), *Observation of the extremely bright flare of the FSRQ 3C279 with H.E.S.S. II*, *PoS*, Vol. ICRC2017 2017, arXiv: 1708.00882 [astro-ph.HE].

[17] ★ M. **Meyer** for the *Fermi*-LAT Collaboration, *Searches for Axionlike Particles Using Gamma-Ray Observations*, *Proceedings of 12th Patras Workshop on Axions, WIMPs, and WISPs* 2016, arXiv: 1611.07784 [astro-ph.HE].

[16] J. Conrad, M. **Meyer**, and D. Montanino, *Axion-Like particles from extragalactic High Energy sources*, *Journal of Physics Conference Series*, Vol. 718, No. 5, 052026, p. 052026, 2016.

[15] A. Abchiche et al. (CTA Consortium, including M. **Meyer**), *CTA Contributions to the 34th International Cosmic Ray Conference (ICRC2015)*, *ArXiv e-prints* 2015, arXiv: 1508.05894 [astro-ph.HE].

[14] ★ M. **Meyer**, *Modelling gamma-ray-axion-like particle oscillations in turbulent magnetic fields: relevance for observations with Cherenkov telescopes*, *Proceedings of 10th Patras Workshop on Axions, WIMPs, and WISPs* 2014, arXiv: 1412.2492 [astro-ph.HE].

[13] ★ M. **Meyer** and D. Horns, *Impact of oscillations of photons into axion-like particles on the very-high energy gamma-ray spectrum of the blazar PKS1424+240*, *Proceeding for the European Physical Society Conference on High Energy Physics* 2013, arXiv: 1310.2058 [astro-ph.HE].

[12] D. Horns and M. **Meyer**, *Pair-production opacity at high and very-high gamma-ray energies*, *Proceedings of the 9th Patras Workshop* 2013, arXiv: 1309.3846 [astro-ph.HE].

[11] O. Abril et al. (CTA Consortium, including M. **Meyer**), *CTA contributions to the 33rd International Cosmic Ray Conference (ICRC2013)*, *ArXiv e-prints* 2013, arXiv: 1307.2232 [astro-ph.HE].

[10] M. Raue and M. **Meyer**, *How recent limits on the extragalactic background light constrain the star formation history*, American Institute of Physics Conference Series, Vol. 1505, ed. by F. A. Aharonian, W. Hofmann, and F. M. Rieger, pp. 610–613, 2012.

[9] ★ M. **Meyer**, M. Raue, D. Mazin, and D. Horns, *Limits on the extragalactic background light in the Fermi era*, American Institute of Physics Conference Series, Vol. 1505, ed. by F. A. Aharonian, W. Hofmann, and F. M. Rieger, pp. 602–605, 2012.

[8] ★ M. **Meyer**, D. Horns, and M. Raue, *Indications for a low opacity universe from Fermi-LAT data*, American Institute of Physics Conference Series, Vol. 1505, ed. by F. A. Aharonian, W. Hofmann, and F. M. Rieger, pp. 598–601, 2012.

[7] G. Giavitto et al. (including M. **Meyer**), *VHE gamma-ray measurements of the Crab nebula and pulsar by MAGIC*, American Institute of Physics Conference Series, Vol. 1505, ed. by F. A. Aharonian, W. Hofmann, and F. M. Rieger, pp. 301–304, 2012.

[6] ★ M. **Meyer**, D. Horns, L. Maccione, A. Mirizzi, D. Montanino, and M. Roncadelli, *The effect of photon-axion-like particle conversions in galaxy clusters on very high energy γ-ray spectra*, *Proceedings of the 8th Patras Workshop on Axions, WIMPs and WISPs* 2012, arXiv: 1211.6408 [astro-ph.HE].

[5] ★ M. **Meyer**, D. Horns, and M. Raue, *Revisiting the Indication for a low opacity Universe for very high energy gamma-rays*, *Proceedings of the 8th Patras Workshop on Axions, WIMPs and WISPs* 2012, arXiv: 1211.6405 [astro-ph.HE].

[4] ★ M. **Meyer**, D. Horns, and L. Maccione, *Signatures of axion-like particles from the conversions of gamma-rays in intra-cluster magnetic fields*, 6, ed. by K. Zioutas and M. Schumann, p. 6, 2012.

[3] ★ M. **Meyer**, D. Horns, and M. Raue, *Indications for a low opacity Universe at high and very high energies*, 5, ed. by K. Zioutas and M. Schumann, p. 5, 2012.

[2] ★ M. **Meyer** and D. Horns, *On the transparency of the universe*, ed. by M. Raue, T. Kneiske, D. Horns, D. Elsaesser, and P. Hauschildt, p. 11, 2010.

[1] ★ M. **Meyer**, D. Horns, and H. S. Zechlin, *Cross Calibration of Imaging Air Cherenkov Telescopes with Fermi*, *The 2009 Fermi Symposium, eConf Proceedings C091122* 2009, arXiv: 0912.3754 [astro-ph.IM].