

## Publication List

28 publications in peer-reviewed journals with major contribution and 1 manuscript submitted for publication (14 as corresponding author). Co-author of more than 50 publications of the H.E.S.S. collaboration, 11 publications of the *Fermi*-LAT collaboration, 23 conference proceedings, and 4 white papers. According to [NASA ADS](#), the publications have in total more than 5300 citations with an h index of 33. 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 always in alphabetical order. Corresponding author publications are marked with an asterisk (\*).

### Peer Reviewed Publications

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- 29:** \*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*,  
*Accepted by JCAP* 2021, arXiv: [2010.01349 \[astro-ph.HE\]](#).
- 28:** 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 \[astro-ph.HE\]](#).
- 27:** H. Abdalla et al. (H.E.S.S. & MAGIC Collaborations, including **M. Meyer**),  
*Observation of a sudden cessation of a very-high-energy  $\gamma$ -ray flare in PKS 1510–089 with H.E.S.S. and MAGIC in May 2016*,  
*Accepted by A&A* 2020, 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  $\gamma$ -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  $\gamma$ -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:** G. Chiaro et al. (including **M. Meyer**),  
*Identifying TeV Source Candidates among Fermi-LAT Unclassified Blazars*,  
*Astrophys. J.*, 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  $\gamma$ -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*,  
*Astrophys. J.*, 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*,  
*Astrophys. J. Suppl.* 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*,  
*Astrophys. J.*, 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*,  
*Astrophys. J.*, 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*, *Astrophys. J.*, 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*, *Astrophys. J.*, 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: \***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 \[astro-ph.HE\]](#).

6: 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 \[astro-ph.HE\]](#).

5: 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 \[astro-ph.CO\]](#).

4: \***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 \[astro-ph.CO\]](#).

3: 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 \[astro-ph.CO\]](#).

2: \***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 \[astro-ph.HE\]](#).

## Submitted

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1: \***M. Meyer**, M. Petropoulou, and I. Christie,  
*The observability of plasmoid-powered  $\gamma$ -ray flares with the Fermi Large Area Telescope*,  
*Submitted to Astrophys. J.* 2020, arXiv: [2012.09944 \[astro-ph.HE\]](#).

## White Papers

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- 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* Mar. 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

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- 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 al. (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  $\gamma$ -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* Sept. 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* July 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, Dec. 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, Dec. 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, Dec. 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, Dec. 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  $\gamma$ -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* Nov. 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, July 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, July 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* Dec. 2009, arXiv: [0912.3754 \[astro-ph.IM\]](#).