

Publications 2017

Journals Articles

Aarts, G., Aichelin, J., Allton, C., Arnaldi, R., Bass, S. A., Bedda, C., ... Zhuang, P. (2017): Heavy-flavor production and medium properties in high-energy nuclear collisions - What next? *European Physical Journal A*, 53(5), 93. doi:10.1140/epja/i2017-12282-9

Aartsen, M. G., Ackermann, M., Adams, J., Aguilar, J. A., Ahlers, M., Ahrens, M., ... Soumagnac, M. (2017): Multiwavelength follow-up of a rare IceCube neutrino multiplet. *Astronomy and Astrophysics*, 607, A115. doi:10.1051/0004-6361/201730620

Abada , A., Arcadi, G., Domcke , V., & Lucente , M. (2017): Neutrino masses, leptogenesis and dark matter from small lepton number violation? *Journal of Cosmology and Astroparticle Physics*, 2017(12), 024. doi:10.1088/1475-7516/2017/12/024

Abdalla, H., Abramowski, A., Aharonian, F., Benkhali, F. A., Akhperjanian, A. G., Andersson, T., ... Petroff, E. (2017): First limits on the very-high energy gamma-ray afterglow emission of a fast radio burst HESS observations of FRB 150418. *Astronomy and Astrophysics*, 597, A115. doi:10.1051/0004-6361/201629117

Abdalla, H., Abramowski, A., Aharonian, F., Benkhali, F. A., Akhperjanian, A. G., Andersson, T., ... Wood, K. S. (2017): Gamma-ray blazar spectra with HESS II mono analysis: The case of PKS2155-304 and PG1553+113. *Astronomy and Astrophysics*, 600, A89. doi:10.1051/0004-6361/201629427

Abdalla, H., Abramowski, A., Aharonian, F., Benkhali, F. A., Akhperjanian, A. G., Andersson, T., ... Zywicka, N. (2017): Characterizing the gamma-ray long-term variability of PKS2155 304 with HESS and Fermi-LAT. *Astronomy and Astrophysics*, 598, A39. doi:10.1051/0004-6361/201629419

Abdalla, H., Abramowski, A., Aharonian, F., Benkhali, F. A., Akhperjanian, A. G., Andersson, T., ... Zywicka, N. (2017): Measurement of the EBL spectral energy distribution using the VHE gamma-ray spectra of HESS blazars. *Astronomy and Astrophysics*, 606, A59. doi:10.1051/0004-6361/201731200

Abdalla, H., Abramowski, A., Aharonian, F., Benkhali, F. A., Anguner, E. O., Arakawa, M., ... Zywicka, N. (2017): TeV Gamma-Ray Observations of the Binary Neutron Star Merger GW170817 with HESS. *Astrophysical Journal, Letters*, 850(2), L22. doi:10.3847/2041-8213/aa97d2

Abdollahi, S., Ackermann, M., Ajello, M., Atwood, W. B., Baldini, L., Barbiellini, G., ... Zimmer, S. (2017): Cosmic-ray electron-positron spectrum from 7 GeV to 2 TeV with the Fermi Large Area Telescope. *Physical Review D*, 95(8), 082007. doi:10.1103/PhysRevD.95.082007

Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., ... Zhou, H. (2017): Daily Monitoring of TeV Gamma-Ray Emission from Mrk 421, Mrk 501, and the Crab Nebula with HAWC. *Astrophysical Journal*, 841(2), 100. doi:10.3847/1538-4357/aa729e

Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., ... Zhang, H. (2017): Extended gamma-ray sources around pulsars constrain the origin of the positron flux at Earth. *Science*, 358(6365), 911–914. doi:10.1126/science.aan4880

Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., ... Zhou, H. (2017): The 2HWC HAWC Observatory Gamma-Ray Catalog. *Astrophysical Journal*, 843(1), 40. doi:10.3847/1538-4357/aa7556

Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., ... Zhou, H. (2017): Search for Very High-energy Gamma Rays from the Northern Fermi Bubble Region with HAWC. *Astrophysical Journal*, 842(2), 85. doi:10.3847/1538-4357/aa751a

Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., ... Zhou, H. (2017): Observation of the Crab Nebula with the HAWC Gamma-Ray Observatory. *Astrophysical Journal*, 843(1), 39. doi:10.3847/1538-4357/aa7555

Abeysekara, A. U., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., Arteaga-Velazquez, J. C., ... Zhou, H. (2017): The HAWC Real-time Flare Monitor for Rapid Detection of Transient Events. *Astrophysical Journal*, 843(2), 116. doi:10.3847/1538-4357/aa789f

Abgrall, N., Abramov, A., Abrosimov, N., Abt, I., Agostini, M., Agartioglu, M., ... Zuzel, G. (2017): The Large Enriched Germanium Experiment for Neutrinoless Double Beta Decay (LEGEND). *AIP Conference Proceedings*, 1894, 020027-1. doi:10.1063/1.5007652

Abrahao, T., Almazan, H., dos Anjos, J. C., Appel, S., Baussan, E., Bekman, I., ... Zimmer, V. (2017): Cosmic-muon characterization and annual modulation measurement with Double Chooz detectors. *Journal of Cosmology and Astroparticle Physics*, 2017(2), 017. doi:10.1088/1475-7516/2017/02/017

Acero, F., Aloisio, R., Amans, J., Amato, E., Antonelli, L. A., Aramo, C., ... Zorn, J. (2017): Prospects for Cherenkov Telescope Array Observations of the Young Supernova Remnant RX J1713.7-3946. *Astrophysical Journal*, 840(2), 74. doi:10.3847/1538-4357/aa6d67

Ackermann, M., Ajello, M., Albert, A., Baldini, L., Ballet, J., Barbiellini, G., ... Zhou, M. (2017): Observations of M31 and M33 with the Fermi Large Area Telescope: A Galactic Center Excess in Andromeda? *Astrophysical Journal*, 836(2), 208. doi:10.3847/1538-4357/aa5c3d

Adamova, D., Agakichiev, G., Andronic, A., Antonczyk, D., Appelshaeuser, H., Belaga, V., ... Yurevich, V. (2017): Triangular flow of negative pions emitted in PbAu collisions at root $s_{\text{NN}}=17.3 \text{ GeV}$. *Nuclear Physics A*, 957, 99–108. doi:10.1016/j.nuclphysa.2016.08.002

Adhikari, R., Agostini, M., Ky, N. A., Araki, T., Archidiacono, M., Bahr, M., ... Zuber, K. (2017): A White Paper on keV sterile neutrino Dark Matter. *Journal of Cosmology and Astroparticle Physics*, (1), 025. doi:10.1088/1475-7516/2017/01/025

Aghion, S., Amsler, C., Ariga, A., Ariga, T., Bonomi, G., Braeunig, P., ... Zurlo, N. (2017): Measurement of antiproton annihilation on Cu, Ag and Au with emulsion films. *Journal of Instrumentation*, 12, P04021. doi:10.1088/1748-0221/12/04/P04021

Aghion, S., Amsler, C., Ariga, T., Bonomi, G., Brusa, R. S., Caccia, M., ... Lyckegaard, F. (2017): Characterization of a transmission positron/positronium converter for antihydrogen production. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 407, 55–66. doi:10.1016/j.nimb.2017.05.059

Agostini, M., Allardt, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., ... Zuzel, G. (2017): Limits on uranium and thorium bulk content in GERDA Phase I detectors. *Astroparticle Physics*, 91, 15–21. doi:10.1016/j.astropartphys.2017.03.003

Agostini, M., Allardt, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., ... Zuzel, G. (2017): Background-free search for neutrinoless double-beta decay of Ge-76 with GERDA. *Nature*, 544(7648), 47–+. doi:10.1038/nature21717

Agostini, M., Altenmueller, K., Appel, S., Atroshchenko, V., Bellini, G., Benziger, J., ... Zuzel, G. (2017): Borexino's search for low-energy neutrino and antineutrino signals correlated with gamma-ray bursts. *Astroparticle Physics*, 86, 11–17. doi:10.1016/j.astropartphys.2016.10.004

Agostini, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., Bauer, C., ... Zuzel, G. (2017): Search for Neutrinoless Double Beta Decay with GERDA Phase II. *AIP Conference Proceedings*, 1894, 020012. doi:10.1063/1.5007637

Agostini, M., Altenmueller, K., Appel, S., Bellini, G., Benziger, J., Bick, D., ... Zuzel, G. (2017): Borexino: geo-neutrino measurement at Gran Sasso, Italy. *Annals of Geophysics*, 60(1), S0114. doi:10.4401/ag-7389

Aharonian, F. A., Barkov, M. V., & Khangulyan, D. (2017): Scenarios for Ultrafast Gamma-Ray Variability in AGN. *Astrophysical Journal*, 841(1), 61. doi:10.3847/1538-4357/aa7049

Aharonian, F. A., Akamatsu, H., Akimoto, F., Allen, S. W., Angelini, L., Audard, M., ... Zoghbi, A. (2017): Solar abundance ratios of the iron-peak elements in the Perseus cluster. *Nature*, 551(7681), 478–+. doi:10.1038/nature24301

Aharonian, F. A., Sun, X., & Yang, R. (2017): Energy distribution of relativistic electrons in the young supernova remnant G1.9+0.3. *Astrophysics & Astronomy*, 603, A7. doi:10.1051/0004-6361/201630212

Ahnen, M. L., Ansoldi, S., Antonelli, L. A., Antoranz, P., Arcaro, C., Babic, A., ... Reinhall, R. (2017): MAGIC detection of very high energy gamma-ray emission from the low-luminosity blazar 1ES 1741+196. *Monthly Notices of the Royal Astronomical Society*, 468(2), 1534–1541. doi:10.1093/mnras/stx472

Ahnen, M. L., Ansoldi, S., Antonelli, L. A., Antoranz, P., Arcaro, C., Babic, A., ... Zanin, R. (2017): Very-high-energy gamma-ray observations of the Type Ia Supernova SN 2014J with the MAGIC telescopes. *Astronomy and Astrophysics*, 602, A98. doi:10.1051/0004-6361/201629574

Ahnen, M. L., Ansoldi, S., Antonelli, L. A., Arcaro, C., Babic, A., Banerjee, B., ... Zanin, R. (2017): Search for very high-energy gamma-ray emission from the microquasar Cygnus X-1 with the MAGIC telescopes. *Monthly Notices of the Royal Astronomical Society*, 472(3), 3474–3485. doi:10.1093/mnras/stx2087

Akhmedov, E. K. (2017): Do non-relativistic neutrinos oscillate? *Journal of High Energy Physics : JHEP*, 2017(7), 070. doi:10.1007/JHEP07(2017)070

Akhmedov, E. K., Kopp, J., & Lindner, M. (2017): Collective neutrino oscillations and neutrino wave packets. *Journal of Cosmology and Astroparticle Physics*, 2017(9), 017. doi:10.1088/1475-7516/2017/09/017

Alanne, T., Franzosi, D. B., & Frandsen, M. T. (2017): Partially composite Goldstone Higgs boson. *Physical Review D*, 96(9), 095012. doi:10.1103/PhysRevD.96.095012

Albert, A., Funk, S., Katagiri, H., Kawashima, T., Murphy, M., Okumura, A., ... Wu, T. (2017): TARGET 5: A new multi-channel digitizer with triggering capabilities for gamma-ray atmospheric Cherenkov telescopes. *Astroparticle Physics*, 92, 49–61. doi:10.1016/j.astropartphys.2017.05.003

Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., Arteaga-Velazquez, J. C., Avila Rojas, D., ... Zhou, H. (2017): Search for Very-high-energy Emission from Gamma-Ray Bursts Using the First 18 Months of Data from the HAWC Gamma-Ray Observatory. *Astrophysical Journal*, 843(2), 88. doi:10.3847/1538-4357/aa756f

Althubiti, N. A., Atanasov, D., Blaum, K., Cocolios, T. E., Goodacre, T. D., Farooq-Smith, G. J., ... Zuber,

K. (2017): Spectroscopy of the long-lived excited state in the neutron-deficient nuclides $^{195,197,199}\text{Po}$ by precision mass measurements. *Physical Review C*, 96(4), 044325. doi:10.1103/PhysRevC.96.044325

Alves, A., Arcadi, G., Dong, P. V., Duarte, L., Queiroz, F., & Valle, J. W. F. (2017): Matter-parity as a residual gauge symmetry: Probing a theory of cosmological dark matter. *Physics Letters B*, 772, 825–831. doi:10.1016/j.physletb.2017.07.056

Alves, A., Arcadi, G., Mambrini, Y., Profumo, S., & Queiroz, F. S. (2017): Augury of darkness: the low-mass dark Z' portal. *Journal of High Energy Physics : JHEP*, 2017(4), 164. doi:10.1007/JHEP04(2017)164

Amaro, P., Shah, C., Steinbrügge, R. F., Beilmann, C., Bernitt, S., Crespo López-Urrutia, J. R., & Tashenov, S. (2017): State-selective influence of the Breit interaction on the angular distribution of emitted photons following dielectronic recombination. *Physical Review A*, 95(2), 022712. doi:10.1103/PhysRevA.95.022712

Angelescu, A., & Arcadi, G. (2017): Dark matter phenomenology of SM and enlarged Higgs sectors extended with vector-like leptons. *European Physical Journal C*, 77(7), 456. doi:10.1140/epjc/s10052-017-5015-2

Anguner, E. O., Aharonian, F., Bordas, P., Casanova, S., Hoischen, C., Oya, I., & Ziegler, A. (2017): HESS J1826-130: A Very Hard gamma-Ray Spectrum Source in the Galactic Plane. *AIP Conference Proceedings*, 1792, 040024. doi:10.1063/1.4968928

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Althueser, L., Amaro, F. D., ... Zhu, T. (2017): Search for bosonic super-WIMP interactions with the XENON100 experiment. *Physical Review D*, 96(12), 122002. doi:10.1103/PhysRevD.96.122002

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Zhang, Y. (2017): The XENON1T dark matter experiment. *European Physical Journal C*, 77(12), 881. doi:10.1140/epjc/s10052-017-5326-3

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Zhu, T. (2017): First Dark Matter Search Results from the XENON1T Experiment. *Physical Review Letters*, 119(18), 181301. doi:10.1103/PhysRevLett.119.181301

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Nisi, S. (2017): Material radioassay and selection for the XENON1T dark matter experiment. *European Physical Journal C - Particles and Fields*, 77(12), 890. doi:10.1140/epjc/s10052-017-5329-0

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Cristescu, I. (2017): Removing krypton from xenon by cryogenic distillation to the ppq level. *European Physical Journal C*, 77(5), 275. doi:10.1140/epjc/s10052-017-4757-1

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Zhang, Y. (2017): Search for Electronic Recoil Event Rate Modulation with 4 Years of XENON100 Data. *Physical Review Letters*, 118(10), 101101. doi:10.1103/PhysRevLett.118.101101

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Zhang, Y. (2017): Search for magnetic inelastic dark matter with XENON100. *Journal of Cosmology and Astroparticle Physics*, 2017(10), 039. doi:10.1088/1475-7516/2017/10/039

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Farmer, B. (2017): Effective field theory search for high-energy nuclear recoils using the XENON100 dark matter detector. *Physical Review D*, 96(4), 042004. doi:10.1103/PhysRevD.96.042004

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Zhang, Y. (2017): Search for WIMP inelastic scattering off xenon nuclei with XENON100. *Physical Review D*, 96(2), 022008. doi:10.1103/PhysRevD.96.022008

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Zhang, Y. (2017): Search for two-neutrino double electron capture of Xe-124 with XENON100. *Physical Review C*, 95(2), 024605. doi:10.1103/PhysRevC.95.024605

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Cristescu, I. (2017): Online 222Rn removal by cryogenic distillation in the XENON100 experiment. *European Physical Journal C*, 77(6), 358. doi:10.1140/epjc/s10052-017-4902-x

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., Anthony, M., ... Zhang, Y. (2017): Results from a calibration of XENON100 using a source of dissolved radon-220. *Physical Review D*, 95(7), 072008. doi:10.1103/PhysRevD.95.072008

Arcadi, G. (2017): Impact of next future Direct Detection experiments on Dark Portals and beyond. *EPJ Web of Conferences*, 136, 05003. doi:10.1051/epjconf/201713605003

Arcadi, G., Ghosh , P., Mambrini, Y., Pierre , M., & Queiroz, F. (2017): Z' portal to Chern-Simons Dark Matter. *Journal of Cosmology and Astroparticles Physics*, 2017(11), 020. doi:10.1088/1475-7516/2017/11/020

Arcadi, G., Gross, C., Lebedev, O., Pokorski, S., & Toma, T. (2017): Evading direct dark matter detection in Higgs portal models. *Physics Letters B*, 769, 129–133. doi:10.1016/j.physletb.2017.03.044

Arcadi, G., Lindner, M., Mambrini, Y., Pierre, M., & Queiroz, F. (2017): GUT models at current and future hadron colliders and implications to dark matter searches. *Physics Letters B*, 771, 508–514. doi:10.1016/j.physletb.2017.05.023

Arcadi, G., Queiroz, F., & Martins Siqueira, C. (2017): The semi-Hooperon: Gamma-ray and anti-proton excesses in the Galactic Center. *Physics Letters B*, 775, 196–205. doi:10.1016/j.physletb.2017.10.065

Arkhipov, M. V., Arkhipov, R. M., Pakhomov, A. V., Babushkin, I. V., Demircan, A., Morgner, U., & Romanov, N. N. (2017): Generation of unipolar half-cycle pulses via unusual reflection of a single-cycle pulse from an optically thin metallic or dielectric layer. *Optics Letters*, 42(11), 2189–2192. doi:10.1364/OL.42.002189

Atanasov, D., Blaum, K., Bosch, F., Brandau, C., Bühl, P., Cakirli, R. B., ... Zhou, X. H. (2017): Studies at the border between nuclear and atomic physics: Weak decays of highly charged ions. *Journal of Physics: Conference Series*, 875, 012008. doi:10.1088/1742-6596/875/2/012008

Atanasov, D., Beck, D., Blaum, K., Borgmann, C., Cakirli, R. B., Eronen, T., ... Zuber, K. (2017): Precision mass measurements of cesium isotopes—new entries in the ISOLTRAP chronicles. *Journal of Physics G: Nuclear and Particle Physics*, 44(4), 044004. doi:10.1088/1361-6471/aa5a20

Balazs, C., Conrad, J., Farmer, B., Jacques, T., Li, T., Meyer, M., ... Sanchez-Conde, M. A. (2017): Sensitivity of the Cherenkov Telescope Array to the detection of a dark matter signal in comparison to direct detection and collider experiments. *Physical Review D*, 96(8), 083002. doi:10.1103/PhysRevD.96.083002

Bambhaniya , G., Dev, B., Goswami , S., Khan , S., & Rodejohann, W. (2017): Naturalness, vacuum stability, and leptogenesis in the minimal seesaw model. *Physical Review D*, 95(9), 095016. doi:10.1103/PhysRevD.95.095016

Barducci, D., & Helmboldt, A. (2017): Quark flavour-violating Higgs decays at the ILC. *Journal of High Energy Physics* : JHEP, 2017(12), 105. doi:10.1007/JHEP12(2017)105

Barnett, S. M., Beige, A., Ekert, A., Garraway, B. M., Keitel, C. H., Kendon, V., ... Kim, M. S. (2017): Journeys from quantum optics to quantum technology. *Progress in Quantum Electronics*, 54, 19–45. doi:10.1016/j.pquantelec.2017.07.002

Barrow, P., Baudis, L., Cichon, D., Danisch, M., Franco, D., Kaether, F., ... Wulf, J. (2017): Qualification tests of the R11410-21 photomultiplier tubes for the XENON1T detector. *Journal of Instrumentation*, 12, P01024. doi:10.1088/1748-0221/12/01/P01024

Bednarek, W., Blanch, O., Cortina, J., de Ona Wilhelmi, E., Hadasch, D., Lopez Coto, R., ... Zanin, R. (2017): MAGIC VHE Gamma-Ray Observations Of Binary Systems. *AIP Conference Proceedings*, 1792, 040016. doi:10.1063/1.4968920

Bilous, P. V., Kazakov, G. A., Moore, I. D., Schumm, T., & Pálffy, A. (2017): Internal conversion from excited electronic states of ^{229}Th ions. *Physical Review A*, 95(3), 032503. doi:10.1103/PhysRevA.95.032503

Birkhan, J., Miorelli, M., Bacca, S., Bassauer, S., Bertulani, C. A., Hagen, G., ... Tamii, A. (2017): Electric Dipole Polarizability of Ca-48 and Implications for the Neutron Skin. *Physical Review Letters*, 118(25), 252501. doi:10.1103/PhysRevLett.118.252501

Bjoerkeroth, F., King, S. F., Schmitz, K., & Yanagida, T. T. (2017): Leptogenesis after chaotic sneutrino inflation and the supersymmetry breaking scale. *Nuclear Physics B*, 916, 688–708. doi:10.1016/j.nuclphysb.2017.01.017

Blaum, K., Sturm, S., & Ulmer, S. (2017): In die Falle gegangen. *Physik Journal*, 16(1), 31–36.

Bogovalov V. S., Aharonian, F., & Khangulyan, D. (2017): Formation of the pulsed TeV gamma-ray emission at the light cylinder. *AIP Conference Proceedings*, 1792, 040010. doi:10.1063/1.4968914

Bonatsos, D., Assimakis, I. E., Minkov, N., Martinou, A., Cakirli, R. B., Casten, R. F., & Blaum, K. (2017): Proxy-SU(3) symmetry in heavy deformed nuclei. *Physical Review C*, 95(06), 064325. doi:10.1103/PhysRevC.95.064325

Bonatsos, D., Assimakis, I. E., Minkov, N., Martinou, A., Sarantopoulou, S., Cakirli, R. B., ... Blaum, K. (2017): Analytic predictions for nuclear shapes, prolate dominance, and the prolate-oblate shape transition in the proxy-SU(3) model. *Physical Review C*, 95(06), 064326. doi:10.1103/PhysRevC.95.064326

Bordas Coma, P., Dubus, G., Eger, P., Ernenwein, J.-P., Laffon, H., Mariaud, C., ... Zanin, R. (2017): Observations of Binary Systems with the HESS Telescopes. *AIP Conference Proceedings*, 1792, 040017. doi:10.1063/1.4968921

Bordas Coma, P., Sun, X., Yang, R., Kafexhiu, E., & Aharonian, F. A. (2017): Gamma-ray emission towards SS433/W50. *AIP Conference Proceedings*, 1792, 040020. doi:10.1063/1.4968924

Borge, M. J. G., & Blaum, K. (2017): Focus on Exotic Beams at ISOLDE: A Laboratory Portrait. *Journal of Physics G: Nuclear and Particle Physics*, 45(1), 010301. doi:10.1088/1361-6471/aa990f

Bosch-Ramon, V., Barkov, M., Mignone , A., & Bordas Coma, P. (2017): HESS J0632+057: hydrodynamics and non-thermal emission. *Monthly Notices of the Royal Astronomical Society*, 471(1), L150–L154. doi:10.1093/mnrasl/slx124

Bragin, S., Meuren, S., Keitel, C. H., & Di Piazza, A. (2017): High-Energy Vacuum Birefringence and Dichroism in an Ultrastrong Laser Field. *Physical Review Letters*, 119(25), 250403. doi:10.1103/PhysRevLett.119.250403

Brodeur, M., Kwiatkowski, A. A., Drozdowski, M., Andreoiu, C., Burdette, D., Chaudhuri, A., ... Dilling, J. (2017): Precision mass measurements of magnesium isotopes and implications for the validity of the isobaric mass multiplet equation. *Physical Review C*, 96(3), 034316. doi:10.1103/PhysRevC.96.034316

Bruenner, S., Cichon, D., Lindemann, S., Marrodán Undagoitia, T., & Simgen, H. (2017): Radon depletion in xenon boil-off gas. *European Physical Journal C - Particles and Fields*, 77(3), 143. doi:10.1140/epjc/s10052-017-4676-1

Brusa, R. S., Amsler, C., Ariga, T., Bonomi, G., Braeunig, P., Cabaret, L., ... Zurlo, N. (2017): The AEgIS experiment at CERN: measuring antihydrogen free-fall in earth's gravitational field to test WEP with antimatter. *Journal of Physics: Conference Series*, 791, 012014. doi:10.1088/1742-6596/791/1/012014

Buck, C., Collin, A., Haser, J. A., & Lindner, M. (2017): Investigating the spectral anomaly with different reactor antineutrino experiments. *Physics Letters B*, 765, 159–162. doi:10.1016/j.physletb.2016.11.062

Burger, C., Frisch, W. F., Kardas, T. M., Trubetskov, M., Pervak, V., Moshammer, R., ... Wnuk, P. (2017): Compact and flexible harmonic generator and three-color synthesizer for femtosecond coherent control and time-resolved studies. *Optics Express*, 25(25), 31130–31139. doi:10.1364/OE.25.031130

Bykov, A. M., Aharonian, F. A., Krassilchchikov, A. M., Kholupenko, E. E., Aruev, P. N., Baiko, D. A., ... Chichagov, Y. V. (2017): Cherenkov Gamma-Ray Telescopes: Past, Present, Future. The ALEGRO Project. *Technical Physics*, 62(6), 819–836. doi:10.1134/S106378421706007X

Campos , M. D., Queiroz, F., Yaguna, C. E., & Weniger , C. (2017): Search for right-handed neutrinos from dark matter annihilation with gamma-rays. *Journal of Cosmology and Astroparticle Physics*, 2017(7), 016. doi:10.1088/1475-7516/2017/07/016

Campos, M., Cogollo, D., Lindner, M., Melo, T., Queiroz, F., & Rodejohann, W. (2017): Neutrino Masses and Absence of Flavor Changing Interactions in the 2HDM from Gauge Principles. *Journal of High Energy Physics : JHEP*, 2017(08), 092. doi:10.1007/JHEP08(2017)092

Camus, N., Yakaboylu, E., Fechner, L., Klaiber, M., Laux, M., Mi, Y., ... Moshammer, R. (2017): Experimental Evidence for Quantum Tunneling Time. *Physical Review Letters*, 119(2), 023201. doi:10.1103/PhysRevLett.119.023201

Capasso, M., Condon, B., Coffaro, M., Cui, Y., Gottschall, D., Klochkov, D., ... Rowell, G. (2017): The TeV supernova remnant shell HESS J1731-347 and its surroundings. *AIP Conference Proceedings*, 1792, 040026. doi:10.1063/1.4968930

Caravita, R., Aghion, S., Amsler, C., Bonomi, G., Brusa, R. S., Caccia, M., ... Zurlo, N. (2017): Advances in Ps Manipulations and Laser Studies in the AEgIS Experiment. *Acta Physica Polonica B*, 48(10), 1583–1592. doi:10.5506/APhysPolB.48.1583

Carpeggiani, P., Reduzzi, M., Comby, A., Ahmadi, H., Kuehn, S., Calegari, F., ... Sansone, G. (2017): Vectorial optical field reconstruction by attosecond spatial interferometry. *Nature Photonics*, 11(6), 383–389. doi:10.1038/NPHOTON.2017.73

Casanova, S. (2017): First year results from the HAWC observatory. *EPJ Web of Conferences*, 136, 03005. doi:10.1051/epjconf/201713603005

Cavaletto, S., Harman, Z., Pfeifer, T., & Keitel, C. H. (2017): Deterministic strong-field quantum control. *Physical Review A*, 95(4), 043413. doi:10.1103/PhysRevA.95.043413

Ceban, V., Longo, P., & Macovei, M. (2017): Fast phonon dynamics of a nanomechanical oscillator due to cooperative effects. *Physical Review A*, 95(2), 023806. doi:10.1103/PhysRevA.95.023806

Cerruti, M., Bottcher, M., Chakraborty, N., Davids, I. D., Fuessling, M., Jankowsky, F., ... Zacharias, M. (2017): Target of Opportunity Observations of Blazars with HESS. *AIP Conference Proceedings*, 1792, 050029. doi:10.1063/1.4968975

Chen, J.-W., Detmold, W., Lynn, J. E., & Schwenk, A. (2017): Short-Range Correlations and the EMC Effect in Effective Field Theory. *Physical Review Letters*, 119(26), 262502. doi:10.1103/PhysRevLett.119.262502

Chen, X. C., Zeng, Q., Litvinov, Y. A., Tu, X. L., Walker, P. M., Wang, M., ... Zhang, Y. H. (2017): Statistical approaches to lifetime measurements with restricted observation times. *Physical Review C*, 96(3), 034302. doi:10.1103/PhysRevC.96.034302

Ciappina, M. F., Perez-Hernandez, J. A., Landsman, A. S., Okell, W. A., Zherebtsov, S., Foerg, B., ... Lewenstein, M. (2017): Attosecond physics at the nanoscale. *Reports on Progress in Physics*, 80(5), 054401. doi:10.1088/1361-6633/aa574e

Cologna, G., Chakraborty, N., Jacholkowska, A., Lorentz, M., Mohamed, M., Perennes, C., ... Kurtanidze, O. (2017): The Exceptional Flare of Mrk 501 in 2014 Combined Observations with HESS and FACT. *AIP Conference Proceedings*, 1792, 050019. doi:10.1063/1.4968965

Consolati, G., Aghion, S., Amsler, C., Bonomi, G., Brusa, R. S., Caccia, M., ... Zurlo, N. (2017): Positronium for Antihydrogen Production in the AEGIS Experiment. *Acta Physica Polonica A*, 132(5), 1443–1449. doi:10.12693/APhysPolA.132.1443

Cristofari, P., Gabici, S., Humensky, T. B., Santander, M., Terrier, R., Parizot, E., & Casanova, S. (2017): Supernova remnants in the very-high-energy gamma-ray domain: the role of the Cherenkov telescope array. *Monthly Notices of the Royal Astronomical Society*, 471(1), 201–209. doi:10.1093/mnras/stx1574

Cui, N., & Macovei, M. (2017): Amplifying ultraweak transitions in collective systems via quantum interference. *Physical Review A*, 96(6), 063814. doi:10.1103/PhysRevA.96.063814

Dai, Z. G., Wang, J., & Yu, Y. W. (2017): Radio Emission from Pulsar Wind Nebulae without Surrounding Supernova Ejecta: Application to FRB 121102. *Astrophysical Journal, Letters*, 838(1), L7. doi:10.3847/2041-8213/aa6745

De Roubin, A., Atanasov, D., Blaum, K., George, S., Herfurth, F., Kisler, D., ... Zuber, K. (2017): Nuclear deformation in the $A \approx 100$ region: Comparison between new masses and mean-field predictions. *Physical Review C*, 96(01), 014310. doi:10.1103/PhysRevC.96.014310

De Wilt, P., Rowell, G., Walsh, A. J., Burton, M., Rathborne, J., Fukui, Y., ... Aharonian, F. (2017): Dense molecular gas at 12 mm towards Galactic TeV gamma-ray sources. *Monthly Notices of the Royal Astronomical Society*, 468(2), 2093–2113. doi:10.1093/mnras/stx369

Debierre, V., & Harman, Z. (2017): Resonance fluorescence in the resolvent-operator formalism. *Physical Review A*, 96(4), 043835. doi:10.1103/PhysRevA.96.043835

Del Sorbo, D., Seipt, D., Blackburn, T. G., Thomas, A. G. R., Murphy, C. D., Kirk, J. G., & Ridgers, C. P. (2017): Spin polarization of electrons by ultraintense lasers. *Physical Review A*, 96(4), 043407. doi:10.1103/

Dev, B., Lindner, M., & Ohmer, S. (2017): Gravitational Waves as a New Probe of Bose-Einstein Condensate Dark Matter. *Physics Letters B*, 773, 219–224. doi:10.1016/j.physletb.2017.08.043

Dev, B., Miralles Vila, C., & Rodejohann, W. (2017): Naturalness in testable type II seesaw scenarios. *Nuclear Physics B*, 921, 436–453. doi:10.1016/j.nuclphysb.2017.06.007

Dev, B., Mohapatra , R. N., & Zhang , Y. (2017): Heavy right-handed neutrino dark matter in left-right models. *Modern Physics Letters A*, 32(15), 1740007. doi:10.1142/S0217732317400077

Di Piazza, A., Wistisen, T. N., & Uggerhøj, U. I. (2017): Investigation of classical radiation reaction with aligned crystals. *Physics Letters B*, 765, 1–5. doi:10.1016/j.physletb.2016.10.083

Di Piazza, A. (2017): First-order strong-field QED processes in a tightly focused laser beam. *Physical Review A*, 95(3), 032121. doi:10.1103/PhysRevA.95.032121

Diebold, S., Barcelo, M., Bauer, C., Bernhard, S., Biegger, M., Capasso, M., ... Zietara, K. (2017): Readout electronics testing during mass production of FlashCam cameras for the Cherenkov Telescope Array. *Proceedings of SPIE*, 10399, 103991T. doi:10.1117/12.2270608

Donath, A., Brun, F., Chaves, R. C. G., Deil, C., Marandon, V., & Terrier, R. (2017): The HESS Galactic plane survey. *AIP Conference Proceedings*, 1792, 040001. doi:10.1063/1.4968905

Dournaux, J. L., De Franco, A., Laporte, P., White, R., Greenshaw, T., Sol, H., ... Zink, A. (2017): Operating performance of the gamma-ray Cherenkov telescope: An end-to-end Schwarzschild-Couder telescope prototype for the Cherenkov Telescope Array. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 845, 355–358. doi:10.1016/j.nima.2016.05.059

Drischler, C., Krüger, T., Hebeler, K., & Schwenk, A. (2017): Pairing in neutron matter: New uncertainty estimates and three-body forces. *Physical Review C*, 95(2), 024302. doi:10.1103/PhysRevC.95.024302

Foerster, A., Leymann, H. A. M., & Wiersig, J. (2017): Computer-aided cluster expansion: An efficient algebraic approach for open quantum many-particle systems. *Computer Physics Communications*, 212, 210–219. doi:10.1016/j.cpc.2016.10.010

Fornengo, N., Masiero, A., Queiroz, F., & Yaguna, C. E. (2017): On the role of neutrinos telescopes in the search for Dark Matter annihilations in the Sun. *Journal of Cosmology and Astroparticles Physics*, 2017(11), 012. doi:10.1088/1475-7516/2017/12/012

Funk, S., Jankowsky, D., Katagiri, H., Kraus, M., Okumura, A., Schoorlemmer, H., ... Zorn, J. (2017): TARGET: A Digitizing And Trigger ASIC For The Cherenkov Telescope Array. *AIP Conference Proceedings*, 1792, 080012. doi:10.1063/1.4969033

Gallant, A. T., Alanssari, M., Bale, J. C., Andreoiu, C., Barquest, B. R., Chowdhury, U., ... Dilling, J. (2017): Mass determination near N=20 for Al and Na isotopes. *Physical Review C*, 96(2), 024325. doi:10.1103/PhysRevC.96.024325

Gandolfi, S., Hammer, H.-W., Klos, P., Lynn, J. E., & Schwenk, A. (2017): Is a Trineutron Resonance Lower in Energy than a Tetraneutron Resonance? *Physical Review Letters*, 118(23), 232501. doi:10.1103/PhysRevLett.118.232501

Garny, M., Heisig , J., Luelf, B., & Vogl, S. (2017): Coannihilation without chemical equilibrium. *Physical Review D*, 96(10), 103521. doi:10.1103/PhysRevD.96.103521

Gastaldo, L., Blaum, K., Chrysalidis, K., Goodacre, T. D., Domula, A., Door, M., ... Zuber, K. (2017): The Electron Capture in ^{163}Ho Experiment ECHo. *European Physical Journal - Special Topics*, 226(8), 1623–1694. doi:10.1140/epjst/e2017-70071-y

Ge, S.-F., & Lindner, M. (2017): Extracting Majorana properties from strong bounds on neutrinoless double beta decay. *Physical Review D*, 95(3), 033003. doi:10.1103/PhysRevD.95.033003

Ge, S.-F., Lindner, M., & Rodejohann, W. (2017): Atmospheric trident production for probing new physics. *Physics Letters B*, 772, 164–168. doi:10.1016/j.physletb.2017.06.020

Ge, S.-F., Pasquini, P., Tortola, M., & Valle, J. W. F. (2017): Measuring the leptonic CP phase in neutrino oscillations with nonunitary mixing. *Physical Review D*, 95(3), 033005. doi:10.1103/PhysRevD.95.033005

Ge, S.-F., Rodejohann, W., & Zuber, K. (2017): Half-life expectations for neutrinoless double beta decay in standard and nonstandard scenarios. *Physical Review D*, 96(5), 055019. doi:10.1103/PhysRevD.96.055019

Ghanbari-Adivi, E., Fischer, D., Ferreira, N., Goullon, J., Hubele, R., LaForge, A., ... Madison, D. (2017): Comparison of experimental and theoretical fully differential cross sections for single ionization of the 2s and 2p states of Li by Li^{2+} ions. *Journal of Physics B*, 50(21), 215202. doi:10.1088/1361-6455/aa8dd2

Giacche, S., & Kirk, J. G. (2017): Electron Acceleration at Pulsar Wind Termination Shocks. *Astrophysical Journal*, 835(2), 235. doi:10.3847/1538-4357/835/2/235

Giacche, S., & Kirk, J. G. (2017): Electron Acceleration at PWN Termination Shocks: application to PSR B1259-63. *AIP Conference Proceedings*, 1792, 040019. doi:10.1063/1.4968923

Giacinti, G., & Kirk, J. G. (2017): Large-scale Cosmic-Ray Anisotropy as a Probe of Interstellar Turbulence. *Astrophysical Journal*, 835(2), 258. doi:10.3847/1538-4357/835/2/258

Giacoppo, F., Blaum, K., Block, M., Chhetri, P., Düllmann, C. E., Droese, C., ... Yakushev, A. (2017): Recent Upgrades of the SHIPTRAP Setup: On the Finish Line Towards Direct Mass Spectroscopy of Super-heavy Elements. *Acta Physica Polonica B*, 43(3), 423–429. doi:10.5506/APhysPolB.48.423

Giavitto, G., Ashton, T., Balzer, A., Berge, D., Brun, F., Chaminade, T., ... Toussnel, F. (2017): The Upgrade of the HESS Cameras. *AIP Conference Proceedings*, 1792, 070008. doi:10.1063/1.4969005

Giavitto, G., Ashton, T., Balzer, A., Berge, D., Brun, F., Chaminade, T., ... Toussnel, F. (2017): The upgrade of the HESS cameras. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 876, 35–38. doi:10.1016/j.nima.2016.12.057

Gottschall, D., Capasso, M., Deil, C., Djannati-Atai, A., Donath, A., Eger, P., ... Vink, J. (2017): Discovery of new TeV supernova remnant shells in the Galactic plane with HESS. *AIP Conference Proceedings*, 1792, 040030. doi:10.1063/1.4968934

Grieser, M., von Hahn, R., Vogel, S., & Wolf, A. (2017): The phase slip factor of the electrostatic cryogenic storage ring CSR. *Journal of Physics: Conference Series*, 874(conf. 1), 012049. doi:10.1088/1742-6596/874/1/012049

Groenemeijer, P., Pucik, T., Holzer, A. M., Antonescu, B., Riemann-Campe, K., Schultz, D. M., ... Sausen, R. (2017): Severe Convective Storms in Europe: Ten Years of Research and Education at the European Se-

vere Storms Laboratory. *Bulletin of the American Meteorological Society*, 98(12), 2641–2651. doi:10.1175/BAMS-D-16-0067.1

Groote, M. W., Tuffs, R. J., Popescu, C. C., Norberg, P., Robotham, A. S. G., Liske, J., ... Rushton, M. (2017): Galaxy And Mass Assembly (GAMA): Gas Fueling of Spiral Galaxies in the Local Universe. I. The Effect of the Group Environment on Star Formation in Spiral Galaxies. *Astronomical Journal*, 153(3), 111. doi:10.3847/1538-3881/153/3/111

Haber, J., Kong, X., Strohm, C., Willing, S., Gollwitzer, J., Bocklage, L., ... Roehlsberger, R. (2017): Rabi oscillations of X-ray radiation between two nuclear ensembles. *Nature Photonics*, 11(11), 720–725. doi:10.1038/s41566-017-0013-3

Hansen, R., & Vogl, S. (2017): Thermalizing Sterile Neutrino Dark Matter. *Physical Review Letters*, 119(25), 251305. doi:10.1103/PhysRevLett.119.251305

Harigaya , K., & Schmitz, K. (2017): Unified model of chaotic inflation and dynamical supersymmetry breaking. *Physics Letters B*, 773, 320–324. doi:10.1016/j.physletb.2017.08.050

Hassan, T., Arrabito, L., Bernloehr, K., Bregeon, J., Cortina, J., Cumani, P., ... Wood, M. (2017): Monte Carlo performance studies for the site selection of the Cherenkov Telescope Array. *Astroparticle Physics*, 93, 76–85. doi:10.1016/j.astropartphys.2017.05.001

HAWC Collaboration, Alfaro, R., Alvarez, C., Álvarez, J. D., Arceo, R., Arteaga-Velázquez, J. C., ... Zhou, H. (2017): Search for very-high-energy emission from Gamma-ray Bursts using the first 18 months of data from the HAWC Gamma-ray Observatory. *The Astrophysical Journal*, 843(2), 88. doi:10.3847/1538-4357/aa756f

HAWC collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhang, H. (2017): Extended gamma-ray sources around pulsars constrain the origin of the positron flux at Earth. *Science*, 358(6365), 911–914. doi:10.1126/science.aan4880

HAWC Collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhang, H. (2017): Extended gamma-ray sources around pulsars constrain the origin of the positron flux at Earth. *Science*, 358(6365), 911–914. doi:10.1126/science.aan4880

HAWC Collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhou, H. (2017): Daily monitoring of TeV gamma-ray emission from Mrk 421, Mrk 501, and the Crab Nebula with HAWC. *The Astrophysical Journal*, 841(2), 100. doi:10.3847/1538-4357/aa729e

HAWC Collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhou, H. (2017): Observation of the Crab Nebula with the HAWC Gamma-Ray Observatory. *The Astrophysical Journal*, 843(1), 39. doi:10.3847/1538-4357/aa7555

HAWC Collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhou, H. (2017): Search for Very High Energy Gamma Rays from the NorthernFermi Bubble Region with HAWC. *The Astrophysical Journal*, 842(2). doi:10.3847/1538-4357/aa751a

HAWC Collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhou, H. (2017): The 2HWC HAWC Observatory Gamma Ray Catalog. *The Astrophysical Journal*, 843(3), 40. doi:10.3847/1538-4357/aa7556

HAWC Collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhou, H. (2017): The 2HWC HAWC Observatory Gamma Ray Catalog. *Astrophysical Journal*, 843(1), 40.

doi:10.3847/1538-4357/aa7556

HAWC Collaboration, Abeysekara, A. U., Alfaro, R., Alvarez, C., Álvarez, J. D., Arceo, R., ... Zhou, H. (2017): The HAWC real-time flare monitor for rapid detection of transient events. *Astrophysical Journal*, 843(2), 116. doi:10.3847/1538-4357/aa789f

HAWC Collaboration, Alfaro, R., Alvarez, C., Arceo, R., Arteaga-Velázquez, J. C., Rojas, D. A., ... Álvarez, J. D. (2017): All-particle cosmic ray energy spectrum measured by the HAWC experiment from 10 to 500 TeV. *Physical Review D*, 96(12), 122001. doi:10.1103/PhysRevD.96.122001

Hawton, M., & Debierre, V. (2017): Maxwell meets Reeh-Schlieder: The quantum mechanics of neutral bosons. *Physics Letters. A*, 381(23), 1926–1935. doi:10.1016/j.physleta.2017.04.004

Heeg, K. P., & Evers, J. (2017): Scharfe Röntgenpulse durch ruckartige Bewegung. *Physik in Unserer Zeit*, 48(6), 267–268. doi:10.1002/piuz.201770605

Heeg, K. P., Kaldun, A., Strohm, C., Reiser, P., Ott, C., Subramanian, R., ... Evers, J. (2017): Spectral narrowing of x-ray pulses for precision spectroscopy with nuclear resonances. *Science*, 357(6349), 375–378. doi:10.1126/science.aan3512

Heiße, F., Köhler-Langes, F., Rau, S., Hou, J., Junck, S., Kracke, A., ... Sturm, S. (2017): High-Precision Measurement of the Proton's Atomic Mass. *Physical Review Letters*, 119(03), 033001. doi:10.1103/PhysRevLett.119.033001

Helmboldt, A. J., Humbert, P., Lindner, M., & Smirnov, J. (2017): Minimal conformal extensions of the Higgs sector. *Journal of High Energy Physics : JHEP*, 2017(7), 113. doi:10.1007/JHEP07(2017)113

Helmboldt, A., & Lindner, M. (2017): Prospects for three-body Higgs boson decays into extra light scalars. *Physical Review D*, 95(5), 055008. doi:10.1103/PhysRevD.95.055008

Hessler, A. G., Ibarro, A., Molinaro, E., & Vogl, S. (2017): Probing the scotogenic FIMP at the LHC. *Journal of High Energy Physics : JHEP*, 2017(1), 100. doi:10.1007/JHEP01(2017)100

Hoferichter , M., Klos, P., Menendez, J., & Schwenk, A. (2017): Improved Limits for Higgs-Portal Dark Matter from LHC Searches. *Physical Review Letters*, 119(18), 181803. doi:10.1103/PhysRevLett.119.181803

Hofmann, W. (2017): The Cherenkov Telescope Array - Status. *AIP Conference Proceedings*, 1792, 020014. doi:10.1063/1.4968899

Hofmann, W. (2017): Perspectives from CTA in relativistic astrophysics. *International Journal of Modern Physics D*, 26(3), 1730005. doi:10.1142/S0218271817300051

Hoppe, J., Drischler, C., Furnstahl, R. J., Hebeler, K., & Schwenk, A. (2017): Weinberg eigenvalues for chiral nucleon-nucleon interactions. *Physical Review C*, 96(5), 054002. doi:10.1103/PhysRevC.96.054002

Horowitz, C. J., Caballero, O. L., Lin, Z., O'Connor, E., & Schwenk, A. (2017): Neutrino-nucleon scattering in supernova matter from the virial expansion. *Physical Review C*, 95(2), 025801. doi:10.1103/PhysRevC.95.025801

Huang, X.-C., Li, W.-B., Kong, X., & Zhu, L.-F. (2017): Field redistribution inside an X-ray cavity-QED setup. *Optics Express*, 25(25), 31337–31346. doi:10.1364/OE.25.031337

Huth, L., Tews, I., Lynn, J. E., & Schwenk, A. (2017): Analyzing the Fierz rearrangement freedom for local chiral two-nucleon potentials. *Physical Review C*, 96(5), 054003. doi:10.1103/PhysRevC.96.054003

Iablonskyi, D., Ueda, K., Ishikawa, K. L., Kheifets, A. S., Carpeggiani, P., Reduzzi, M., ... Prince, K. C. (2017): Observation and Control of Laser-Enabled Auger Decay. *Physical Review Letters*, 119(7), 073203. doi:10.1103/PhysRevLett.119.073203

Ioannisian, A. N., Smirnov, A. Y., & Wyler, D. (2017): Scanning the Earth with solar neutrinos and DUNE. *Physical Review D*, 96(3), 036005. doi:10.1103/PhysRevD.96.036005

Ioannisian, A. N., & Smirnov, A. (2017): Attenuation effect and neutrino oscillation tomography. *Physical Review D*, 96(8), 083009. doi:10.1103/PhysRevD.96.083009

Jager, M. F., Ott, C., Kraus, P. M., Kaplan, C. J., Pouse, W., Marvel, R. E., ... Leone, S. R. (2017): Tracking the insulator-to-metal phase transition in VO₂ with few-femtosecond extreme UV transient absorption spectroscopy. *Proceedings of the National Academy of Sciences of the United States of America*, 114(36), 9558–9563. doi:10.1073/pnas.1707602114

Jardin-Blicq, A., & Joshi, V. (2017): HAWC Upgrade for Multi-TeV gamma-ray Detection. *AIP Conference Proceedings*, 1792, 070010. doi:10.1063/1.4969007

Jarrett, T. H., Cluver, M. E., Magoulas, C., Bilicki, M., Alpaslan, M., Bland-Hawthorn, J., ... Wang, L. (2017): Galaxy and Mass Assembly (GAMA): Exploring the WISE Web in G12. *Astrophysical Journal*, 836(2), 182. doi:10.3847/1538-4357/836/2/182

Jeschke, D., Agostini, M., Altenmueller, K., Appel, S., Atroshchenko, V., Bellini, G., ... Zuzel, G. (2017): Recent Results from Borexino. *Journal of Physics: Conference Series*, 798, 012114. doi:10.1088/1742-6596/798/1/012114

Jimenez, D., Kamada, K., Schmitz, K., & Xu, X.-J. (2017): Baryon symmetry and gravitational waves from pseudoscalar inflation. *Journal of Cosmology and Astroparticles Physics*, 2017(11), 011. doi:10.1088/1475-7516/2017/12/011

Jin, L., Evers, J., & Macovei, M. (2017): Collective dynamics in a laser-pumped mixture of two atomic ensembles. *Journal of the Optical Society of America B-Optical Physics*, 34(6), 1280–1285. doi:10.1364/JOSAB.34.001280

Joshi, V. (2017): HAWC High Energy Upgrade with a Sparse Array. *EPJ Web of Conferences*, 136, 03006. doi:10.1051/epjconf/201713603006

Joyner, C. H., Smilansky, U., & Weidenmüller, H. A. (2017): Spectral statistics of the uni-modular ensemble. *Journal of Physics A*, 50(38), 385101. doi:10.1088/1751-8121/aa836a

Kavanagh, B. J., Queiroz, F., Rodejohann, W., & Yaguna Toro, C. E. (2017): Prospects for determining the particle/antiparticle nature of WIMP dark matter with direct detection experiments. *Journal of High Energy Physics : JHEP*, 2017(10), 059. doi:10.1007/JHEP10(2017)059

Kirk, J. G., & Giacinti, G. (2017): Inductive Spikes in the Crab Nebula: A Theory of gamma-Ray Flares. *Physical Review Letters*, 119(21), 211101. doi:10.1103/PhysRevLett.119.211101

Kirsten, T. (2017): Neutrino Astronomy: Current Status, Future Prospects. *Journal of Astronomical Instrumentation*, 6(4), UNSP 1780004. doi:10.1142/S2251171717800046

Klaiber, M., Hatsagortsyan, K. Z., Wu, J., Luo, S. S., Grugan, P., & Walker, B. C. (2017): Limits of Strong Field Rescattering in the Relativistic Regime. *Physical Review Letters*, 118(9), 093001. doi:10.1103/PhysRevLett.118.093001

Klaiber, M., Daněk, J., Yakaboylu, E., Hatsagortsyan, K. Z., & Keitel, C. H. (2017): Strong-field ionization via a high-order Coulomb-corrected strong-field approximation. *Physical Review A*, 95(2), 023403. doi:10.1103/PhysRevA.95.023403

Klasen, M., Lyonnet, F., & Queiroz, F. (2017): NLO plus NLL collider bounds, Dirac fermion and scalar dark matter in the B-L model. *European Physical Journal C*, 77(5), 348. doi:10.1140/epjc/s10052-017-4904-8

Klepser, S., Aharonian, F. A., Anguener, E. O., Casanova, S., Hahn, J., Mariaud, C., ... Zefi, F. (2017): New Insights into Pulsar Wind Nebula Evolution with HESSI and II. *AIP Conference Proceedings*, 1792, 040012. doi:10.1063/1.4968916

Klos, P., Carbone, A., Hebeler, K., Menendez, J., & Schwenk, A. (2017): Uncertainties in constraining low-energy constants from $3H \beta$ decay. *European Physical Journal A*, 53(8), 168. doi:10.1140/epja/i2017-12357-7

Knauer , S., Fischer p, P., Marx, G., Schabinger, B., Schweikhard , L., & Wolf, R. (2017): Multi-reflection time-of-flight mass spectrometry with combined in-trap lift capture and mirror-switch ejection. *International Journal of Mass Spectrometry*, 423, 46–53. doi:10.1016/j.ijms.2017.10.007

Kobyakov, D. N., Pethick, C. J., Reddy, S., & Schwenk, A. (2017): Dispersion and decay of collective modes in neutron star cores. *Physical Review C*, 96(2), 025805. doi:10.1103/PhysRevC.96.025805

Kong, X., & Pálffy, A. (2017): Collective radiation spectrum for ensembles with Zeeman splitting in single-photon superradiance. *Physical Review A*, 96(3), 033819. doi:10.1103/PhysRevA.96.033819

Kowalska, M., Aschenbrenner, P., Baranowski, M., Bissell, M. L., Gins, W., Harding, R. D., ... Zakoucky, D. (2017): New laser polarization line at the ISOLDE facility. *Journal of Physics G: Nuclear and Particle Physics*, 44(8), 084005. doi:10.1088/1361-6471/aa77d7

Krantz, C., Badnell, N. R., Müller, A., Schippers, S., & Wolf, A. (2017): Recombination of open-f-shell tungsten ions. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 50(5), 052001. doi:10.1088/1361-6455/aa547d

Krantz, C., Novotny, O., Becker, A., George, S., Grieser, M., von Hahn, R., ... Wolf, A. (2017): Single-particle detection of products from atomic and molecular reactions in a cryogenic ion storage ring. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 851, 92–102. doi:10.1016/j.nima.2017.01.050

Krieger, A., Nörtershäuser, W., Geppert, C., Blaum, K., Bissell, M. L., Frömmgen, N., ... Zakova., M. (2017): Frequency-comb referenced collinear laser spectroscopy of Be^+ for nuclear structure investigations and many-body QED tests. *Applied Physics B: Lasers and Optics*, 123, 15. doi:10.1007/s00340-016-6579-5

Kuebel, M., Burger, C., Siemering, R., Kling, N. G., Bergues, B., Alnaser, A. S., ... Kling, M. F. (2017): Phase- and intensity-dependence of ultrafast dynamics in hydrocarbon molecules in few-cycle laser fields. *Molecular Physics*, 115(15-16), 1835–1845. doi:10.1080/00268976.2017.1288935

Lapington, J. S., Abchiche, A., Allan, D., Amans, J.-P., Armstrong, T. P., Balzer, A., ... Zorn, J. (2017): The GCT camera for the Cherenkov Telescope Array. *Nuclear Instruments and Methods in Physics Research*

Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 876, 1–4. doi:10.1016/j.nima.2016.12.010

Lascar, D., Klawitter, R., Babcock, C., Leistenschneider, E., Stroberg, S. R., Barquest, B. R., ... Dilling, J. (2017): Precision mass measurements of $^{125-127}\text{Cd}$ isotopes and isomers approaching the N = 82 closed shell. *Physical Review C*, 96(4), 044323. doi:10.1103/PhysRevC.96.044323

Lascar, D., Koottte, B., Barquest, B. R., Chowdhury, U., Gallant, A. T., Good, M., ... Leach, K. G. (2017): A novel transparent charged particle detector for the CPET upgrade at TITAN. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 868, 133–138. doi:10.1016/j.nima.2017.07.003

Lau, J. C., Rowell, G., Burton, M. G., Fukui, Y., Aharonian, F. A., Oya, I., ... Casanova, S. (2017): Interstellar gas towards the TeV gamma -ray sources HESS J1640-465 and HESS J1641-463. *Monthly Notices of the Royal Astronomical Society*, 464(3), 3757–3774. doi:10.1093/mnras/stw2692

Leach, K. G., Dillmann, I., Klawitter, R., Leistenschneider, E., Lennarz, A., Brunner, T., ... Dilling, J. (2017): Electroweak Decay Studies of Highly Charged Radioactive Ions with TITAN at TRIUMF. *Atoms*, 5(1), 14. doi:10.3390/atoms5010014

LHCb collaboration, Aaij, H., Adeva, B., Adinolfi, M., Affolder, A., Ajaltouni, Z., Akar, S., ... Zucchelli, S. (2017): Erratum to: Measurement of forward J/ ψ production cross-sections in pp collisions at $s\sqrt{s}=13$ TeV. *Journal of High Energy Physics : JHEP*, 2017(5), 063. doi:10.1007/JHEP05(2017)063

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of the B^\pm production cross-section in pp collisions at $s\sqrt{s}=7$ and 13 TeV. *Journal of High Energy Physics : JHEP*, 2017(12), 026. doi:10.1007/JHEP12(2017)026

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Observation of D^0 Meson Decays to $\pi^+\pi^-\mu^+\mu^-$ and $K^+K^-\mu^+\mu^-$ Final States. *Physical Review Letters*, 119(18), 181805. doi:10.1103/PhysRevLett.119.181805

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Observation of the Doubly Charmed Baryon Ξ_{cc}^{++} . *Physical Review Letters*, 119(11), 112001. doi:10.1103/PhysRevLett.119.112001

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Search for Baryon-Number Violating Ξ_b^0 Oscillations. *Physical Review Letters*, 119(18), 181807. doi:10.1103/PhysRevLett.119.181807

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of CP observables in $B^\pm \rightarrow DK^{\pm}$ decays using two- and four-body D final states. *Journal of High Energy Physics : JHEP*, 2017(11), 156. doi:10.1007/JHEP11(2017)156

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): $\chi c1$ and $\chi c2$ Resonance Parameters with the Decays $\chi c1,c2 \rightarrow J/\psi\mu^+\mu^-$. *Physical Review Letters*, 119(22), 221801. doi:10.1103/PhysRevLett.119.221801

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Study of prompt D^0 meson production in pPb collisions at $\sqrt{s}_{NN}=5$ TeV. *Journal of High Energy Physics : JHEP*, (10), 090. doi:10.1007/JHEP10(2017)090

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S.

(2017): Prompt and nonprompt J/ ψ production and nuclear modification in pPb collisions at $\sqrt{s_{NN}}=8.16$ TeV. Physics Letters B, 774, 159–178. doi:10.1016/j.physletb.2017.09.058

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of the shape of the $\Lambda_b^0 \rightarrow \Lambda_c^+ \mu^- \nu_\mu$ differential decay rate. Physical Review D, 96(11), 112005. doi:10.1103/PhysRevD.96.112005

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of the Y(nS) polarizations in pp collisions at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics : JHEP, 2017(12), 110. doi:10.1007/JHEP12(2017)110

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Study of bb̄ correlations in high energy proton-proton collisions. Journal of High Energy Physics : JHEP, 2017(11), 030. doi:10.1007/JHEP11(2017)030

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Resonances and CP violation in B_s^0 and $B_s^{-0} \rightarrow J/\psi K K^-$ decays in the mass region above the $\phi(1020)$. Journal of High Energy Physics : JHEP, (8), 037. doi:10.1007/JHEP08(2017)037

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of the phase difference between short- and long-distance amplitudes in the $B^+ \rightarrow K^+ \mu^+ \mu^-$ decay. European Physical Journal C, 77(3), 161. doi:10.1140/epjc/s10052-017-4703-2

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Search for the CP-violating strong decays $\eta \rightarrow \pi^+ \pi^-$ and $\eta' (958) \rightarrow \pi^+ \pi^-$. Physics Letters B, 764, 233–240. doi:10.1016/j.physletb.2016.11.032

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurements of charm mixing and CP violation using $D^0 \rightarrow K^\pm \pi^\mp$ decays. Physical Review D, 95(5), 052004. doi:10.1103/PhysRevD.95.052004

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Search for the Decays $B_s^0 \rightarrow \tau^+ \tau^-$ and $B^0 \rightarrow \tau^+ \tau^-$. Physical Review Letters, 118(25), 251802. doi:10.1103/PhysRevLett.118.251802

LHCb collaboration, LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Observation of Five New Narrow Ω_c^0 States Decaying to $\Xi_c^+ K^-$. Physical Review Letters, 118(18), 182001. doi:10.1103/PhysRevLett.118.182001

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of B-s(0) and D-s(-) Meson Lifetimes. Physical Review Letters, 119(10), 101801. doi:10.1103/PhysRevLett.119.101801

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): First Observation of a Baryonic B-s(0) Decay. Physical Review Letters, 119(4), 041802. doi:10.1103/PhysRevLett.119.041802

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Improved limit on the branching fraction of the rare decay $K_s^0 \rightarrow \mu^+ \mu^-$. European Physical Journal C, 77(10), 678. doi:10.1140/epjc/s10052-017-5230-x

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of B_s^0 , B_s^0 , B^+ and Λ_b^0 production asymmetries in 7 and 8 TeV proton-proton collisi-

ons. Physics Letters B, 774, 139–158. doi:10.1016/j.physletb.2017.09.023

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Erratum to: Measurement of the J/ψ pair production cross-section in pp collisions at $\sqrt{s}=13\text{TeV}$. Journal of High Energy Physics : JHEP, 2017(10), 068. doi:10.1007/JHEP10(2017)068

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Search for massive long-lived particles decaying semileptonically in the LHCb detector. European Physical Journal C, 77(4), 224. doi:10.1140/epjc/s10052-017-4744-6

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Observation of the suppressed decay $\Lambda_b^0 \rightarrow p\pi^- \mu^+ \mu^-$. Journal of High Energy Physics : JHEP, 2017(4), 029. doi:10.1007/JHEP04(2017)029

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurements of prompt charm production cross-sections in pp collisions at Measurements of prompt charm production cross-sections in pp collisions at $s\sqrt{s}=5\text{ TeV}$. Journal of High Energy Physics : JHEP, 2017(6), 147. doi:10.1007/JHEP06(2017)147

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): First Experimental Study of Photon Polarization in Radiative B_s^0 Decays. Physical Review Letters, 118(2), 021801. doi:10.1103/PhysRevLett.118.021801

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Observation of the decay $B_s^0 \rightarrow \phi\pi^+\pi^-$ and evidence for $B^0 \rightarrow \phi\pi^+\pi^-$. Physical Review D, 95(1), 012006. doi:10.1103/PhysRevD.95.012006

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Observation of the Annihilation Decay Mode $B^0 \rightarrow K^+K^-$. Physical Review Letters, 118(8), 081801. doi:10.1103/PhysRevLett.118.081801

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Observation of eta(c)(2S) -> p(p)over-bar and search for X(3872) -> p(p)over-bar decays. Physics Letters B, 769, 305–313. doi:10.1016/j.physletb.2017.03.046

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Erratum to: Measurements of the S-wave fraction in $B^0 \rightarrow K^+ \pi^- \mu^+ \mu^-$ decays and the $B^0 \rightarrow K^*(892)^0 \mu^+ \mu^-$ differential branching fraction. Journal of High Energy Physics : JHEP, (4), 142. doi:10.1007/JHEP04(2017)142

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Search for the suppressed decays $B^+ \rightarrow K^+K^+\pi^-$ and $B^+ \rightarrow \pi^+\pi^+K^-$. Physics Letters B, 765, 307–316. doi:10.1016/j.physletb.2016.11.053

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Observation of $J/\psi\phi$ Structures Consistent with Exotic States from Amplitude Analysis of $B^+ \rightarrow J/\psi\phi K^+$ Decays. Physical Review Letters, 118(2), 022003. doi:10.1103/PhysRevLett.118.022003

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Evidence for the two-body charmless baryonic decay $B^+ \rightarrow p\Lambda^-$. Journal of High Energy Physics : JHEP, 2017(4), 162. doi:10.1007/JHEP04(2017)162

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S.

(2017): Measurement of CP asymmetries in $D \rightarrow \eta \pi^{(\pm)}$ and $D \rightarrow \eta' \pi^{(\pm)}$ decays. Physics Letters B, 771, 21–30. doi:10.1016/j.physletb.2017.05.013

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of forward $t(t)\bar{t}$, $W + b\bar{b}$ and $W + c\bar{c}$ production in ppc collisions at $\sqrt{s}=8$ TeV. Physics Letters B, 767, 110–120. doi:10.1016/j.physletb.2017.01.044

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): Measurement of CP asymmetry in $D^0 \rightarrow K^- K^+$ decays. Physics Letters B, 767, 177–187. doi:10.1016/j.physletb.2017.01.061

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltounis, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2017): New algorithms for identifying the flavour of B^0 mesons using pions and protons. European Physical Journal C, 77(4), 238. doi:10.1140/epjc/s10052-017-4731-y

Li, J.-X., Chen, Y.-Y., Hatsagortsyan, K. Z., & Keitel, C. H. (2017): Angle-resolved stochastic photon emission in the quantum radiation-dominated regime. Scientific Reports, 7, 11556. doi:10.1038/s41598-017-11871-0

Li, J.-X., Chen, Y.-Y., Hatsagortsyan, K. Z., & Keitel, C. H. (2018). Single-Shot Carrier-Envelope Phase Determination of Long Superintense Laser Pulses. Physical Review Letters, 120(12), 124803. doi:10.1103/PhysRevLett.120.124803

Li, Y., Kempf, S., Simolka, J., Strack, H., Gruen, E., & Srama, R. (2017): Instrument concept of a single channel dust trajectory detector. Advances in Space Research, 59(6), 1636–1641. doi:10.1016/j.asr.2016.12.037

Liao, W.-T., & Pálffy, A. (2017): Optomechanically induced transparency of x-rays via optical control. Scientific Reports, 7(1), 321. doi:10.1038/s41598-017-00428-w

LIGO Scientific Collaboration, Virgo Collaboration, Fermi GBM, INTEGRAL, IceCube Collaboration, AstroSat Cadmium Zinc Telluride Imager Team, ... Hofmann. (2017): Multi-messenger Observations of a Binary Neutron Star Merger. The Astrophysical Journal Letters, 848(2), L12. doi:10.3847/2041-8213/aa91c9

Lindner, M., & Ohmer, S. (2017): Emerging Internal Symmetries from Effective Spacetimes. Physics Letters B, 773, 231–235. doi:10.1016/j.physletb.2017.08.026

Lindner, M., Radovcic, B., & Welter, J. M. (2017): Revisiting large neutrino magnetic moments. Journal of High Energy Physics : JHEP, 2017(7), 139. doi:10.1007/JHEP07(2017)139

Lindner, M., Rodejohann, W., & Xu, X. (2017): Coherent neutrino-nucleus scattering and new neutrino interactions. Journal of High Energy Physics : JHEP, 2017(3), 097. doi:10.1007/JHEP03(2017)097

Liu, R., Rieger, F. M., & Aharonian, F. A. (2017): Particle Acceleration in Mildly Relativistic Shearing Flows: The Interplay of Systematic and Stochastic Effects, and the Origin of the Extended High-energy Emission in AGN Jets. Astrophysical Journal, 842(1), 39. doi:10.3847/1538-4357/aa7410

Liu, R., Taylor, A., Wang, X.-Y., & Aharonian, F. A. (2017): Constraining the Redshift Distribution of Ultrahigh-Energy-Cosmic-Ray Sources by Isotropic Gamma-ray Background. AIP Conference Proceedings, 1792, UNSP 060005. doi:10.1063/1.4968988

Liu, Z., Wang, Q., Ding, J., Cavaletto, S., Pfeifer, T., & Hu, B. (2017): Observation and quantification of the

quantum dynamics of a strongfield excited multi-level system. *Scientific Reports*, 7, 39993. doi:10.1038/srep39993

Lu, F., Zhang, C., Grieser, M., Wang, Y., Lü, S., & Zhao, G. (2017): Study of rectangular beam folded waveguide traveling-wave tube for terahertz radiation. *Physics of Plasmas*, 24(10), 103132. doi:10.1063/1.5008287

Lv, Q. Z., & Bauke, H. (2017): Time- and space-resolved selective multipair creation. *Physical Review D*, 96(5), 056017 . doi:10.1103/PhysRevD.96.056017

Lynn, J. E., Tews, I., Carlson, J., Gandolfi, S., Gezerlis, A., Schmidt, K. E., & Schwenk, A. (2017): Quantum Monte Carlo calculations of light nuclei with local chiral two- and three-nucleon interactions. *Physical Review C*, 96(5), 054007. doi:10.1103/PhysRevC.96.054007

Lypova, I., Giavitto, G., Ashton, T., Balzer, A., Berge, D., Brun, F., ... Toussaint, F. (2017): A Major Upgrade of the HESS Cherenkov Cameras. *EPJ Web of Conferences*, 136, 03002. doi:10.1051/epjconf/201713603002

Magron, C., Alfaut, P., Blank, B., Daudin, L., Eronen, T., Gerbaux, M., ... Xayavong, L. (2017): Precise measurements of half-lives and branching ratios for the beta - mirror transitions in the decay of Mg-23 and Si-27. *European Physical Journal A*, 53(4), 77. doi:10.1140/epja/i2017-12271-0

Manea, V., Ascher, P., Atanasov, D., Barzakh, A. E., Beck, D., Blaum, K., ... Zuber, K. (2017): Penning-trap mass spectrometry and mean-field study of nuclear shape coexistence in the neutron-deficient lead region. *Physical Review C*, 95, 054322. doi:10.1103/PhysRevC.95.054322

Marandon, V., Brun, F., Lemoine-Goumard , M., Jogler, T., & Katsuta, J. (2017): Observation of the W49B supernova remnant with Fermi-LAT and HESS. *AIP Conference Proceedings*, 1792, 040033. doi:10.1063/1.4968937

Marcocci, S., Agostini, M., Altenmueller, K., Appel, S., Bellini, G., Benziger, J., ... Zuzel, G. (2017): Real-time detection of solar neutrinos with Borexino. *Nuovo Cimento C*, 40(1), 58. doi:10.1393/ncc/i2017-17058-9

Masters, A., Sulaiman, A.-H., Stawarz, Ł., Reville, B., Sergis, N., Fujimoto, M., ... Dougherty, M.-K. (2017): An in situ Comparison of Electron Acceleration at Collisionless Shocks under Differing Upstream Magnetic Field Orientations. *Astrophysical Journal*, 843(2), 147. doi:10.3847/1538-4357/aa76ea

Max, K., Platscher, M., & Smirnov, J. (2017): Gravitational Wave Oscillations in Bigravity. *Physical Review Letters*, 119(11), 111101. doi:10.1103/PhysRevLett.119.111101

Meyer, C., Becker, A., Blaum, K., Breitenfeldt, C., George, S., Göck, J., ... Wolf, A. (2017): Radiative Rotational Lifetimes and State-Resolved Relative Detachment Cross Sections from Photodetachment Thermometry of Molecular Anions in a Cryogenic Storage Ring. *Physical Review Letters*, 119(02), 023202. doi:10.1103/PhysRevLett.119.023202

Mi, Y., Camus, N., Fechner, L., Laux, M., Moshammer, R., & Pfeifer, T. (2017): Electron-Nuclear Coupling through Autoionizing States after Strong-Field Excitation of H₂ Molecules. *Physical Review Letters*, 118(18), 183201. doi:10.1103/PhysRevLett.118.183201

Michel, N., Oreshkina, N., & Keitel, C. H. (2017): Theoretical prediction of the fine and hyperfine structure of heavy muonic atoms. *Physical Review A*, 96(3), 032510. doi:10.1103/PhysRevA.96.032510

Mishra, P. M., Blaum, K., George, S., Grieser, M., & Wolf, A. (2017): Transfer matrix calculation for ion op-

tical elements using real fields. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 885, 124–133. doi:10.1016/j.nima.2017.11.057

Mitchell, A. M. W., Mariaud, C., Eger, P., Funk, S., Hahn, J., Hinton, J. A., ... Marandon, V. (2017): Detailed VHE Studies of the Pulsar Wind Nebula HESS J1825-137. AIP Conference Proceedings, 1792, 040035. doi:10.1063/1.4968939

Mizuno, T., Cörlin, P., Miteva, T., Gokhberg, K., Kuleff, A., Cederbaum, L. S., ... Moshammer, R. (2017): Time-resolved observation of interatomic excitation-energy transfer in argon dimers. The Journal of Chemical Physics, 146(10), 104305. doi:10.1063/1.4978233

Nagahama, H., Smorra, C., Sellner, S., Harrington, J., Higuchi, T., Borchert, M. J., ... Ulmer, S. (2017): Sixfold improved single particle measurement of the magnetic moment of the antiproton. Nature Communications, 8, 14084. doi:10.1038/ncomms14084

Natale, G., Popescu, C. C., Tuffs, R. J., Clarke, A. J., Debattista, V. P., Fischera, J., ... Thirlwall, J. J. (2017): Ray-tracing 3D dust radiative transfer with DART-Ray: code upgrade and public release. Astronomy and Astrophysics, 607, A125. doi:10.1051/0004-6361/201731757

Nauta, J., Borodin, A., Ledwa, H. B., Stark, J., Schwarz, M., Schmöger, L., ... Pfeifer, T. (2017): Towards precision measurements on highly charged ions using a high harmonic generation frequency comb. Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, 408, 285–288. doi:10.1016/j.nimb.2017.04.077

Neugart, R., Billowes, J., Bissell, M. L., Blaum, K., Cheal, B., Flanagan, K. T., ... Yordanov, D. T. (2017): Collinear laser spectroscopy at ISOLDE: new methods and highlights. Journal of Physics G: Nuclear and Particle Physics, 44, 064002. doi:10.1088/1361-6471/aa6642

Niederwanger, F., Reimer, O., Kissmann, R., & Tuffs, R. J. (2017): The Use Case of a New ISRF on Diffuse Gamma-ray Emission Models. AIP Conference Proceedings, 1792, 070015. doi:10.1063/1.4969012

Okumura, A., Dang, T. V., Ono, S., Tanaka, S., Hayashida, M., Hinton, J., ... Yoshida, T. (2017): Prototyping hexagonal light concentrators using high-reflectance specular films for the Large-Sized Telescopes of the Cherenkov Telescope Array. Journal of Instrumentation, 12, P12008. doi:10.1088/1748-0221/12/12/P12008

Oliver, M., White, T., Mabey, P., Kühn-Kauffeldt, M., Döhl, L., Bingham, R., ... Gregori, G. (2017): Magneto-optic probe measurements in low density-supersonic jets. Journal of Instrumentation, 12, P12001. doi:10.1088/1748-0221/12/12/P12001

Oreshkina, N., Cavaletto, S., Michel, N., Harman, Z., & Keitel, C. H. (2017): Hyperfine splitting in simple ions for the search of the variation of fundamental constants. Physical Review A, 96(3), 030501(R). doi:10.1103/PhysRevA.96.030501

Osmanov , Z., & Rieger, F. M. (2017): On the role of centrifugally accelerated particles in the generation of the Crab pulsar's TeV emission. AIP Conference Proceedings, 1792, 040009. doi:10.1063/1.4968913

Parsons, R. D., King, J., Aharonian, F. A., Gabici, S., Holler, M., Kosack, K., ... Viana, A. (2017): The Galactic Centre Viewed with HESS. AIP Conference Proceedings, 1792, 040005. doi:10.1063/1.4968909

Parsons, R. D., Schüssler, F., Garrigoux, T., Balzer, A., Fuessling, M., Hoischen, C., ... Tam, P. H. T. (2017): The HESS II GRB Observation Scheme. AIP Conference Proceedings, 1792, 050034. doi:10.1063/1.4968980

Patel, H., & Radovcic, B. (2017): On the decoupling theorem for vacuum metastability. *Physics Letters B*, 773, 527–533. doi:10.1016/j.physletb.2017.08.075

Perez, P. F., & Ohmer, S. (2017): Unification and Local Baryon Number. *Physics Letters B*, 768, 86–91. doi:10.1016/j.physletb.2017.02.049

Petroff, E., Burke-Spolaor, S., Keane, E. F., McLaughlin, M. A., Miller, R., Andreoni, I., ... Zywucka, N. (2017): A polarized fast radio burst at low Galactic latitude. *Monthly Notices of the Royal Astronomical Society*, 469(4), 4465–4482. doi:10.1093/mnras/stx1098

Pierce, A., Shah, N. R., & Vogl, S. (2018). Stop Co-Anihilation in the Minimal Supersymmetric Standard Model Revisited. *Physical Review D*, 97(2), 023008. Retrieved from <http://hdl.handle.net/21.11116/0000-0000-B46D-B>

Platscher, M., & Smirnov, J. (2017): Degravitation of the cosmological constant in bigravity. *Journal of Cosmology and Astroparticle Physics*, 2017(3), 051. doi:10.1088/1475-7516/2017/03/051

Popescu, C. C., Yang, R., Tuffs, R., Natale, G., Rushton, M., & Aharonian, F. (2017): A radiation transfer model for the Milky Way: I. Radiation fields and application to high-energy astrophysics. *Monthly Notices of the Royal Astronomical Society*, 470(3), 2539–2558. doi:10.1093/mnras/stx1282

Priel, N., Rauch, L., Landsman, H., Manfredini, A., & Budnik, R. (2017): A model independent safeguard against background mismodeling for statistical inference. *Journal of Cosmology and Astroparticle Physics*, 2017(5), 013. doi:10.1088/1475-7516/2017/05/013

Prosekin, A., Kelner, S. R., & Aharonian, F. A. (2017): On the Synchro-Curvature Radiation. *AIP Conference Proceedings*, 1792, 090001. doi:10.1063/1.4969038

Puehlhofer, G., Eger, P., Bordas Coma, P., Sasaki , M., Gottschall , D., & Capasso, M. (2017): X-ray observations of Galactic HESS sources: An update. *Astronomische Nachrichten*, 338(2-3), 274–280. doi:10.1002/asna.201713342

Pullen, M. G., Wolter, B., Wang, X., Tong, X.-M., Sclafani, M., Baudisch, M., ... Biegert, J. (2017): Transition from nonsequential to sequential double ionization in many-electron systems. *Physical Review A*, 96(3), 033401. doi:10.1103/PhysRevA.96.033401

Ramien, G. N., Gunst, J., Kong, X., & Pálffy, A. (2018). X-ray-frequency modulation via periodic switching of an external magnetic field. *Physical Review A*, 97(6), 063858. doi:10.1103/PhysRevA.97.063858

Reiter, M. P., Leach, K. G., Drozdowski, O. M., Stroberg, S. R., Holt, J. D., Andreoiu, C., ... Dilling, J. (2017): High-precision QEC-value measurement of the superallowed β^+ emitter ^{22}Mg and an ab initio evaluation of the $A = 22$ isobaric triplet. *Physical Review C*, 96(5), 052501. doi:10.1103/PhysRevC.96.052501

Ren, X., Amami, S., Hossen, K., Ali, E., Ning, C., Colgan, J., ... Dorn, A. (2017): Electron-impact ionization of H_2O at low projectile energy: Internormalized triple-differential cross sections in three-dimensional kinematics. *Physical Review A*, 95(2), 022701. doi:10.1103/PhysRevA.95.022701

Ren, X., Hossen, K., Wang, E., Pindzola, M. S., Dorn, A., & Colgan, J. (2017): Analysis of multiple scattering contributions in electron-impact ionization of molecular hydrogen. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 50, 204002. doi:10.1088/1361-6455/aa8b4a

Ren, X., Miteva, T., Kolorenč, P., Gokhberg, K., Kuleff, A. I., Cederbaum, L. S., & Dorn, A. (2017): Observation of fast and slow interatomic Coulombic decay in argon dimers induced by electron-impact ionizati-

- on. Physical Review A, 96(3), 032715. doi:10.1103/PhysRevA.96.032715
- Rieger, F. M. (2017): Gamma-Rays from Non-Blazar AGN. AIP Conference Proceedings, 1792, 020008. doi:10.1063/1.4968893
- Rink, T., & Schmitz, K. (2017): Perturbed Yukawa textures in the minimal seesaw model. Journal of High Energy Physics : JHEP, 2017(3), 158. doi:10.1007/JHEP03(2017)158
- Risoud, F., Leveque, C., Labeye, M., Caillat, J., Maquet, A., Salieres, P., ... Shaaran, T. (2017): Laser-induced blurring of molecular structure information in high harmonic spectroscopy. Scientific Reports, 7, 17302. doi:10.1038/s41598-017-17416-9
- Rodejohann, W., & Xu, X. (2017): Trimaximal $\mu-\tau$ reflection symmetry. Physical Review D, 96(5), 055039. doi:10.1103/PhysRevD.96.055039
- Rodejohann, W., Xu, X., & Yaguna, C. E. (2017): Distinguishing between Dirac and Majorana neutrinos in the presence of general interactions. Journal of High Energy Physics : JHEP, 2017(5), 024. doi:10.1007/JHEP05(2017)024
- Romoli, C., Taylor, A. M., & Aharonian, F. (2017): Cut-off characterisation of energy spectra of bright fermi sources: Current instrument limits and future possibilities. Astroparticle Physics, 88, 38–45. doi:10.1016/j.astropartphys.2016.12.007
- Romoli, C., Taylor, A. M., & Aharonian, F. A. (2017): Cut-off Characterisation of Energy Spectra of Bright Fermi Sources: Current Instrument Limits and Future Possibilities. AIP Conference Proceedings, 1792, 050013. doi:10.1063/1.4968959
- Rudenko, A., Inhester, L., Hanasaki, K., Li, X., Robatjazi, S. J., Erk, B., ... Rolles, D. (2017): Femtosecond response of polyatomic molecules to ultra-intense hard X-rays. Nature, 546(7656), 129–+. doi:10.1038/nature22373
- Ruiz Garcia, R. F., Gorges, C., Bissell, M., Blaum, K., Gins, W., Heylen, H., ... Yang, X. F. (2017): Development of a sensitive setup for laserspectroscopy studies of very exotic calciumisotopes. Journal of Physics G: Nuclear and Particle Physics, 44(4), 044003. doi:10.1088/1361-6471/aa5a24
- Salamin, Y. I., & Li, J.-X. (2017): Electromagnetic fields of an ultra-short tightly-focused radially-polarized laser pulse. Optics Communications, 405, 265–270. doi:10.1016/j.optcom.2017.08.053
- Salesa, F., Lopez Coto, R., & Zhou, H. (2017): HAWC detection of very extended nearby PWNe powered by old pulsars and their relation to the positrons at the Earth. AIP Conference Proceedings, 1792, 040014. doi:10.1063/1.4968918
- Sanchez, R., Lochmann, M., Joehren, R., Andelkovic, Z., Anielski, D., Botermann, B., ... Noertershaeuser, W. (2017): Laser spectroscopy measurement of the 2s-hyperfine splitting in lithium-like bismuth. Journal of Physics B, 50(8), 085004. doi:10.1088/1361-6455/aa63a0
- Sano, H., Yamane, Y., Voisin, F., Fujii, K., Yoshiike, S., Inaba, T., ... Fukui, Y. (2017): Discovery of Molecular and Atomic Clouds Associated with the Magellanic Superbubble 30 Doradus C. Astrophysical Journal, 843(1), 61. doi:10.3847/1538-4357/aa73e0
- Schmelling, M. (2017): Highlights from the LHCb ion physics program. Journal of Physics: Conference Series, 779(conf1), 012005. doi:10.1088/1742-6596/779/1/012005

Schneider, G., Mooser, A., Bohman, M., Schön, N., Harrington, J., Higuchi, T., ... Ulmer, S. (2017): Double-trap measurement of the proton magnetic moment at 0.3 parts per billion precision. *Science*, 358(6366), 1081–1084. doi:10.1126/science.aan0207

Schuessler, F., Backes , M., Balzer , A., Bruno, F., Fuessling , M., Hoischen , C., ... Reimers , A. (2017): The HESS Multi-Messenger Program: Searches For TeV Gamma-Ray Emission AssociatedWith High-Energy. *AIP Conference Proceedings*, 1792, 060006.

Sellner, S., Besirli, M., Bohman, M., Borchert, M. J., Harrington, J., Higuchi, T., ... Ulmer, S. (2017): Improved limit on the directly measured antiproton lifetime. *New Journal of Physics*, 19(August2017), 083023. doi:10.1088/1367-2630/aa7e73

Shcherbinin, M., LaForge, A. C., Sharma , V., Devetta, M., Richter, R., Moshammer, R., ... Mudrich, M. (2017): Interatomic Coulombic decay in helium nanodroplets. *Physical Review A*, 96(1), 013407. doi:10.1103/PhysRevA.96.013407

Simonis, J., Stroberg, S. R., Hebeler, K., Holt, J. D., & Schwenk, A. (2017): Saturation with chiral interactions and consequences for finite nuclei. *Physical Review C*, 96(1), 014303. doi:10.1103/PhysRevC.96.014303

Skoromnik, O., Baryshevsky, V. G., Ulyanenkov, A. P., & Feranchuk, I. D. (2017): Radical increase of the parametric X-ray intensity under condition of extremely asymmetric diffraction. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 412, 86–92. doi:10.1016/j.nimb.2017.09.013

Skoromnik, O., & Feranchuk, I. D. (2017): Analytic approximation for eigenvalues of a class of PT symmetric Hamiltonians. *Physical Review A*, 96(5), 052102. doi:10.1103/PhysRevA.96.052102

Skoromnik, O., Feranchuk, I. D., Leonau, A. U., & Keitel, C. H. (2017): Analytic model of a multi-electron atom. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 50, 245007. doi:10.1088/1361-6455/aa92e6

Smirnov, O. Y., Agostini, M., Appel, S., Bellini, G., Benziger, J., Bick, D., ... Zuzel, G. (2017): Borexino: Recent results and future plans. *Physics of Particels and Nuclei*, 48(6), 1026–1029. doi:10.1134/S1063779617060533

Smorra, C., Sellner, S., Borchert, M. J., Harrington, J., Higuchi, T., Nagahama, H., ... Ulmer, S. (2017): A parts-per-billion measurement of the antiproton magnetic moment. *Nature*, 550(7676), 371–374. doi:10.1038/nature24048

Smorra, C., Mooser, A., Besirli, M., Bohman, M., Borchert, M., Harrington, J., ... Ulmer, S. (2017): Observation of individual spin quantum transitions of a single antiproton. *Physics Letters B*, 769, 1–6. doi:10.1016/j.physletb.2017.03.024

Stroberg, S. R., Calci, A., Hergert, H., Holt, J. D., Bogner, S. K., Roth, R., & Schwenk, A. (2017): Nucleus-Dependent Valence-Space Approach to Nuclear Structure. *Physical Review Letters*, 118(3), 032502. doi:10.1103/PhysRevLett.118.032502

Sturm, S., Vogel, M., Köhler, F., Quint, W., Blaum, K., & Werth, G. (2017): High-Precision Measurements of the Bound Electron's Magnetic Moment. *Atoms*, 5(4), 1–14. doi:10.3390/atoms5010004

Sun, X., Yang, R., Mckinley, B., & Aharonian, F. A. (2017): Giant Lobes of Centaurus A as Seen in Radio and Gamma-Ray Images Obtained with the Fermi-LAT and Planck Satellites. *AIP Conference Procee-*

dings, 1792, 050030. doi:10.1063/1.4968976

Tamburini, M., Di Piazza, A., & Keitel, C. H. (2017): Laser-pulse-shape control of seeded QED cascades. *Scientific Reports*, 7, 5694 . doi:10.1038/s41598-017-05891-z

Tang, Q.-W., Peng, F.-K., Liu, R., Tam, P.-H. T., & Wang, X.-Y. (2017): Evidence of a Spectral Break in the Gamma-Ray Emission of the Disk Component of the Large Magellanic Cloud: A Hadronic Origin? *Astrophysical Journal*, 843(1), 42. doi:10.3847/1538-4357/aa7464

Tang, Q.-W., Wang, X.-Y., & Liu, R. (2017): Evidence of an Internal Dissipation Origin for the High-energy Prompt Emission of GRB 170214A. *Astrophysical Journal*, 844(1), 56. doi:10.3847/1538-4357/aa7a58

Tang, S., Kumar, N., & Keitel, C. H. (2017): Plasma high-order-harmonic generation from ultraintense laser pulses. *Physical Review E*, 95(5), 051201(R). doi:10.1103/PhysRevE.95.051201

Taylor, A. M., & Giacinti, G. (2017): Cosmic rays in a galactic breeze. *Physical Review D*, 95(2), 023001. doi:10.1103/PhysRevD.95.023001

Tibaldo, L., Abchiche, A., Allan, D., Amans, J.-P., Armstrong, T. P., Balzer, A., ... Zorn, J. (2017): The Gamma-ray Cherenkov Telescope for the Cherenkov Telescope Array. *AIP Conference Proceedings*, 1792, 080004. doi:10.1063/1.4969025

Torretti, F., Windberger, A., Ryabtsev, A., Dobrodey, S., Bekker, H., Ubachs, W., ... Versolato, O. O. (2017): Optical spectroscopy of complex open-4d-shell ions Sn⁷⁺–Sn¹⁰⁺. *Physical Review A*, 95(4), 042503. doi:10.1103/PhysRevA.95.042503

Traebert, E., Beiersdorfer, P., & Crespo López-Urrutia, J. R. (2017): Atomic lifetime measurements of Ne-like Fe ions in a magnetic field. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 408, 107–109. doi:10.1016/j.nimb.2017.04.040

Tsuji, N., Uchiyama, Y., Katsuda, S., Berge, D., & Aharonian, F. A. (2017): Chandra and NuSTAR Observations of Supernova Remnant RX J1713.7-3946. *AIP Conference Proceedings*, 1792, 040003. doi:10.1063/1.4968907

Tu, X. L., Kelic-Heil, A., Litvinov, Y. A., Podolyák, Z., Zhang, Y. H., Huang, W. J., ... Zhou, X. H. (2017): Application of isochronous mass spectrometry for the study of angular momentum population in projectile fragmentation reactions. *Physical Review C*, 95(1), 014610. doi:10.1103/PhysRevC.95.014610

Tubman, E.-R., Scott, R.-H.-H., Doyle, H.-W., Meinecke, J., Ahmed, H., Alraddadi, R.-A.-B., ... Woolsey, N.-C. (2017): Time evolution and asymmetry of a laser produced blast wave. *Physics of Plasmas*, 24(10), 103124. doi:10.1063/1.4987038

Tzeferacos, P., Rigby, A., Bott, A., Bell, A.-R., Bingham, R., Casner, A., ... Lamb, D.-Q. (2017): Numerical modeling of laser-driven experiments aiming to demonstrate magnetic field amplification via turbulent dynamo. *Physics of Plasmas*, 24(4), 041404. doi:10.1063/1.4978628

Uhrich, P., Castrignano, S., Uys, H., & Kastner, M. (2017): Noninvasive measurement of dynamic correlation functions. *Physical Review A*, 96(2), 022127. doi:10.1103/PhysRevA.96.022127

Vandebrouck, M., Lepailleur, A., Sorlin, O., Aumann, T., Caesar, C., Holl, M., ... Zuber, K. (2017): Effective proton-neutron interaction near the drip line from unbound states in ^{25,26}F. *Physical Review C*, 96(5), 054305. doi:10.1103/PhysRevC.96.054305

Voisin, F., Rowell, G., Burton, M. G., Fukui, Y., Sano, H., & Aharonian, F. A. (2017): ISM Studies Towards Several PWNe. AIP Conference Proceedings, 1792, 040011. doi:10.1063/1.4968915

Von der Wense, L., Seiferle, B., Stellmer, S., Weitenberg, J., Kazakov, G., Pálffy, A., & Thirolf, P. G. (2017): A laser excitation scheme for ^{229}mTh . Physical Review Letters, 119(13), 132503. doi:10.1103/PhysRevLett.119.132503

Wang, J., & Dai, Z.-G. (2017): Evolution of newborn rapidly rotating magnetars: Effects of R-mode and fall-back accretion. *Astrophysics & Astronomy*, 603, A9. doi:10.1051/0004-6361/201629610

Wang, K., Liu, R.-Y., Li, Z., & Dai, Z.-G. (2017): Neutrino production in electromagnetic cascades: An extra component of cosmogenic neutrino at ultrahigh energies. Physical Review D, 95(6), 063010. doi:10.1103/PhysRevD.95.063010

Wang, K., Liu, R., Li, Z., Dai, Z.-G., & Aharonian, F. A. (2017): The Effective Penetration Distance of Ultrahigh Energy Photons in the Cosmic Background Radiation and the Corresponding Neutrinos Production. AIP Conference Proceedings, 1792, 060004.

Warwick, J., Dzelzainis, T., Dieckmann, M.-E., Schumaker, W., Doria, D., Romagnani, L., ... Sarri, G. (2017): Experimental Observation of a Current-Driven Instability in a Neutral Electron-Positron Beam. Physical Review Letters, 119(18), 185002. doi:10.1103/PhysRevLett.119.185002

Watson, J. J., De Franco, A., Abchiche, A., Allan, D., Amans, J.-P., Armstrong, T. P., ... Zorn, J. (2017): Inauguration and First Light of the GCT-M Prototype for the Cherenkov Telescope Array. AIP Conference Proceedings, 1792, 080006. doi:10.1063/1.4969027

Weidenmüller, H. A. (2017): Limitations of the Porter-Thomas Distribution. AIP Conference Proceedings, 1912, 020021. doi:10.1063/1.5016146

Welker, A., Althubiti, N. A. S., Atanasov, D., Blaum, K., Cocolios, T. E., Herfurth, F., ... Zuber, K. (2017): The binding energy of ^{79}Cu : probing the structure of the doubly magic ^{78}Ni from only one proton away. Physical Review Letters, 119(19), 192502. doi:10.1103/PhysRevLett.119.192502

Welker, A., Filianin, P., Althubiti, N. A. S., Atanasov, D., Blaum, K., Cocolios, T. E., ... Zuber, K. (2017): Precision electron-capture energy in ^{202}Pb and its relevance for neutrino-mass determination. European Physical Journal A, 53(7), 153. doi:10.1140/epja/i2017-12345-y

Wen, M., Keitel, C. H., & Bauke, H. (2017): Spin-one-half particles in strong electromagnetic fields: Spin effects and radiation reaction. Physical Review A, 95(4), 042102. doi:10.1103/PhysRevA.95.042102

Werner, F., Bauer, C., Bernhard, S., Capasso, M., Diebold, S., Eisenkolb, F., ... Zietara, K. (2017): Performance verification of the FlashCam prototype camera for the Cherenkov Telescope Array. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 876, 31–34. doi:10.1016/j.nima.2016.12.056

White, R. (2017): CHEC: a Compact High Energy Camera for the Cherenkov Telescope Array. Journal of Instrumentation, 12, C12059. doi:10.1088/1748-0221/12/12/C12059

Wienholtz, F., Kreim, S. W., Rosenbusch, M., Schweikhard, L., & Wolf, R. (2017): Mass-selective ion ejection from multi-reflection time-of-flight devices via a pulsed in-trap lift. International Journal of Mass Spectrometry, 421, 285–293. doi:10.1016/j.ijms.2017.07.016

Wilhelmi, E. de O., Vink, J., Bykov, A., Zanin, R., Bucciantini, N., Amato, E., ... Uvarov, Y. (2017): Unvei-

ling the Magnetic Structure of VHE SNRs/PWNe with XIPE, the X-ray Imaging-Polarimetry Explorer. AIP Conference Proceedings, 1792, 070023. doi:10.1063/1.4969020

Wojcik, M., Zuzel, G., & Simgen, H. (2017): Review of high-sensitivity Radon studies. International Journal of Modern Physics A, 32(30), 1743004. doi:10.1142/S0217751X17430047

Wraith, C., Yang, X. F., Xie, L., Babcock, C., Bierón, J., Billowes, J., ... Yordanov, D. T. (2017): Evolution of nuclear structure in neutron-rich odd-Zn isotopes and isomers. Physics Letters B, 771, 385–391. doi:10.1016/j.physletb.2017.05.085

Wu, Y., Gunst, J., Keitel, C. H., & Pálffy, A. (2018). Tailoring Laser-Generated Plasmas for Efficient Nuclear Excitation by Electron Capture. Physical Review Letters, 120(5), 052504. doi:10.1103/PhysRevLett.120.052504

Wu, Y., & Pálffy, A. (2017): Determination of Plasma Screening Effects for Thermonuclear Reactions in Laser-generated Plasmas. The Astrophysical Journal, 838(1), 55. doi:10.3847/1538-4357/aa6252

Xu, X. (2017): Tree-level vacuum stability of two-Higgs-doublet models and new constraints on the scalar potential. Physical Review D, 95(11), 115019. doi:10.1103/PhysRevD.95.115019

Yaguna Toro, C. E. (2017): Isospin-violating dark matter in the light of recent data. Physical Review D, 95(5), 055015. doi:10.1103/PhysRevD.95.055015

Yang, R., & Aharonian, F. A. (2017): Diffuse gamma-ray emission near the young massive cluster NGC 3603. Astrophysics & Astronomy, 600, A107. doi:10.1051/0004-6361/201630213

Yerokhin, V. A., & Harman, Z. (2017): One-loop electron self-energy for the bound-electron g factor. Physical Review A, 95(6), 060501(R). doi:10.1103/PhysRevA.95.060501

Yerokhin, V. A., Pachucki, K., Puchalski, M., Harman, Z., & Keitel, C. H. (2017): Electron-correlation effects in the g factor of light Li-like ions. Physical Review A, 95(6), 062511. doi:10.1103/PhysRevA.95.062511

Yordanov, D., Bissell, M. L., Blaum, K., Rydt, M. D., Geppert, C., Krämer, J., ... Vingerhoets, P. (2017): Spin and Magnetic Moment of ^{23}Mg . Journal of Physics G: Nuclear and Particle Physics, 44, 075104. doi:10.1088/1361-6471/aa718b

Zacharias, M., Bottcher, M., Chakraborty, N., Cologna, G., Jankowsky, F., Lenain, J.-P., ... Zaborov, D. (2017): The Complex VHE And Multiwavelength Flaring Activity Of The FSRQ PKS 1510-089 In May 2015. AIP Conference Proceedings, 1792, 050023. doi:10.1063/1.4968969

Zanin, R. (2017): The Crab pulsar at VHE. EPJ Web of Conferences, 136, 03003. doi:10.1051/epjconf/201713603003

Zanin, R., Fernandez-Barral, A., de Ona Wilhelmi, E., Aharonian, F. A., Blanche, O., Galindo, D., & Bosch-Ramon, V. (2017): Detection of high-energy gamma rays from Cygnus X-1 associated with the jets. AIP Conference Proceedings, 1792, 040021. doi:10.1063/1.4968925

Zatorski, J., Sikora, B., Karshenboim, S. G., Sturm, S., Köhler-Langes, F., Blaum, K., ... Harman, Z. (2017): Extraction of the electron mass from g- factor measurements on light hydrogenlike ions. Physical Review A, 96(1), 012502. doi:10.1103/PhysRevA.96.012502

Zatorski, J., Sikora, B., Karshenboim, S. G., Sturm, S., Köhler, F., Blaum, K., ... Harman, Z. (2017): Ext-

raction of the electron mass from g-factor measurements on light hydrogenlike ions. Physical Review A, 96(1), 012502. doi:10.1103/PhysRevA.96.012502

Zeng, Q., Wang, M., Zhou, X. H., Zhang, Y. H., Tu, X. L., Chen, X. C., ... Zhou, X. (2017): Half-life measurement of short-lived $^{94m}_{44}$ Ru $^{44+}$ using isochronous mass spectrometry. Physical Review C, 96(3), 031303(R). doi:10.1103/PhysRevC.96.031303

Zhang, P., Xu, X., Shuai, P., Chen, R.J., Yan, X.L., Zhang, Y.H., ... Xu, F.R. (2017): High-precision QEC values of superallowed $0^+ \rightarrow 0^+$ β -emitters ^{46}Cr , ^{50}Fe and ^{54}Ni . Physics Letters B, 767, 20–24. doi:10.1016/j.physletb.2017.01.039

Zhong, Y., Ostach , D., Scholz, M., Epp, S., Techert, S., Schlichting, I., ... Krasniqi, F. S. (2017): Hot carrier relaxation in CdTe via phonon-plasmon modes. Journal of Physics: Condensed Matter, 29(9), 095701. doi:10.1088/1361-648X/aa5478

Conference Papers 2017

Agostini, M., Allardt, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., ... Zuzel, G. (2017): Active background suppression with the liquid argon scintillation veto of GERDA Phase II. In Journal of Physics: Conference Series (Vol. 888). Bristol: IOP Publishing. doi:10.1088/1742-6596/888/1/012238

Agostini, M., Allardt, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., ... Zuzel, G. (2017): Study of the GERDA Phase II background spectrum. In Journal of Physics: Conference Series (Vol. 888). Bristol: IOP Publishing. doi:10.1088/1742-6596/888/1/012106

Agostini, M., Allardt, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., ... Zuzel, G. (2017): First results from GERDA Phase II. In Journal of Physics: Conference Series (Vol. 888). Bristol: IOP Publishing. doi:10.1088/1742-6596/888/1/012030

Giacinti, G. (2017): High-Energy Cosmic-Rays and Neutrinos around Supernova Shock Breakout. In Proceedings of Science (Vol. ICRC2017).

Giacinti, G., & Kirk, J. G. (2017): TeV-PeV Cosmic-Ray Anisotropy as a Probe of the Local Interstellar Turbulence. In Proceedings of Science (Vol. ICRC2017).

Giacinti, G., & Taylor, A. M. (2017): A Hadronic Model of the Fermi Bubbles: Cosmic-Rays in a Galactic-Breeze. In Proceedings of Science (Vol. ICRC2017).

Kirk, J. G., & Giacinti, G. (2017): Inductive spikes and gamma-ray flares from the Crab Nebula. In Proceedings of Science (Vol. 312). Garmisch-Partenkirchen, Germany. doi:10.22323/1.312.0010

Liang, G. Y., Crespo López-Urrutia, J. R., Beilmann, C., Wei, H. G., & Zhao, G. (2017): Higher-order contribution in the resonance recombination of electron-ion interaction. In Journal of Physics: Conference Series (Vol. 875). Bristol: IOP Publishing. doi:10.1088/1742-6596/875/6/052049

Minkov, N., & Pálffy, A. (2017): Model Mechanism for Radiative Decay of the 7.8 eV Isomer in ^{229}Th . In Nuclear Theory (Vol. 36, pp. 205–214). Rila Mountains, Bulgaria.

Mooser, A., Higuchi, T., Smorra, C., Nagahama, H., Leefer, N., Schneider, G., ... Ulmer, S. (2017): A Test of Charge-Parity-Time Invariance at the Atto-Electronvolt Scale. In JPS conference proceedings (Vol. 18). Tokyo: The Physical Society of Japan. doi:10.7566/JPSCP.18.011019

Niederwanger, F., Reimer, O., Kissmann, R., Popescu, C. C., & Tuffs, R. J. (2017). Consequences of using a new ISRF model for modeling Galactic diffuse gamma-ray emission. In Proceedings of Science (Vol. ICRC2017).

Schneider, G., Leefer, N., Mooser, A., Blaum, K., Higuchi, T., Matsuda, Y., ... Ulmer, S. (2017): Towards an Improved Measurement of the Proton Magnetic Moment. In JPS conference proceedings (Vol. 18). Tokyo: The Physical Society of Japan. doi:10.7566/JPSCP.18.011018

Schüssler, R., Door, M., Rischka, A., Bekker, H., Crespo López-Urrutia, J. R., Filianin, P., ... Blaum, K. (2017): Recent Developments at the High-Precision MassSpectrometer PENTATRAP. In JPS conference proceedings (Vol. 18). Tokyo: The Physical Society of Japan. doi:10.7566/JPSCP.18.011020

Shah, C., Amaro, P., Steinbrügge, R. F., Bernitt, S., Fritzsche, S., Surzhyko, A., ... Tashenov, S. (2017): Strong higher-order resonant contribution to Fe K α x-ray line polarization in hot anisotropic plasmas. In Journal of Physics: Conference Series (Vol. 875). Bristol: IOP Publishing. doi:10.1088/1742-6596/875/6/052038

Shah, C., Dobrodey, S., Bernitt, S., Steinbrügge, R. F., Gu, L., Kaastra, J., & Crespo López-Urrutia, J. R. (2017): Laboratory measurements compellingly supports a charge-exchange mechanism for the “Dark matter” ~ 3.5 keV X-ray line. In Journal of Physics: Conference Series (Vol. 875). Bristol: IOP Publishing. doi:doi :10.1088/1742-6596/875/6/052039

Books and Book Chapters 2017

Borge, M. J. G., & Blaum, K. (Eds.). (2017): Focus on Exotic Beams at ISOLDE: A Laboratory Portrait. Journal of Physics G: Nuclear and Particle Physics (Vol. 45). London: IOP Publishing. Retrieved from <http://iopscience.iop.org/article/10.1088/1361-6471/aa990f>

Köhler-Langes, F. (2017). The Electron Mass and Calcium Isotope Shifts High-Precision Measurements of Bound-Electron g-Factors of Highly Charged Ions Introduction. Cham: Springer. doi:10.1007/978-3-319-50877-1_1

Lopez Coto, R. (2017). Very-high-energy Gamma-ray Observations of Pulsar Wind Nebulae and Cataclysmic Variable Stars with MAGIC and Development of Trigger Systems for IACTs Preface. Cham: Springer.

Publications 2018

Journals Articles

Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Akhperjanian, A. G., Andersson, T., ... Zywicka, N. (2018). Deeper HESS observations of Vela Junior (RX J0852.0-4622): Morphology studies and resolved spectroscopy. *Astronomy and Astrophysics*, 612, A7. doi:10.1051/0004-6361/201630002

Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Akhperjanian, A. G., Andersson, T., ... Katsuta, J. (2018). The supernova remnant W49B as seen with HESS and Fermi-LAT. *ASTRONOMY & ASTROPHYSICS*, 612, A5. doi:10.1051/0004-6361/201527843

Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Akhperjanian, A. G., Andersson, T., ... Zywicka, N. (2018). HESS discovery of very high energy gamma-ray emission from PKS 0625-354. *Monthly Notices of the Royal Astronomical Society*, 476(3), 4187–4198. doi:10.1093/mnras/sty439

Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Anguener, E. O., Arakawa, M., ... Zywicka, N. (2018). The HESS Galactic plane survey. *Astronomy and Astrophysics*, 612, A1. doi:10.1051/0004-6361/201732098

Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Anguener, E. O., Arakawa, M., ... Tanaka, Y. (2018). The gamma-ray spectrum of the core of Centaurus A as observed with HESS and Fermi-LAT. *Astronomy and Astrophysics*, 619, A71. doi:10.1051/0004-6361/201832640

Abdalla, H., Aharonian, F., Ait Benkhali, F., Anguener, E. O., Arakawa, M., Arcaro, C., ... Shannon, R. M. (2018). First ground-based measurement of sub-20 GeV to 100 GeV gamma-Rays from the Vela pulsar with HESS II. *Astronomy and Astrophysics*, 620, A66. doi:10.1051/0004-6361/201732153

Abdalla, H., Aharonian, F., Ait Benkhali, F., Anguener, E. O., Arakawa, M., Arcaro, C., ... Taoso, M. (2018). Searches for gamma-ray lines and “pure WIMP” spectra from Dark Matter annihilations in dwarf galaxies with HESS. *Journal of Cosmology and Astroparticle Physics*, 2018(11), 037. doi:10.1088/1475-7516/2018/11/037

Abdalla, H., Aharonian, F., Benkhali, F. A., Anguener, E. O., Arakawa, M., Arcaro, C., ... Zywicka, N. (2018). The starburst galaxy NGC 253 revisited by HESS and Fermi-LAT. *Astrophysics & Astronomy*, 617, A73. doi:10.1051/0004-6361/201833202

Abdallah, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Anguener, E. O., Arakawa, M., ... Zywicka, N. (2018). Search for gamma-Ray Line Signals from Dark Matter Annihilations in the Inner Galactic Halo from 10 Years of Observations with HESS. *Physical Review Letters*, 120(20), 201101. doi:10.1103/PhysRevLett.120.201101

Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., ... Zhou, H. (2018). Constraining the p-/p ratio in TeV cosmic rays with observations of the Moon shadow by HAWC. *Physical Review D*, 97(10), 102005. doi:10.1103/PhysRevD.97.102005

Abeysekara, A. U., Archer, A., Benbow, W., Bird, R., Brose, R., Buchovecky, M., ... Zhou, H. (2018). VERITAS and Fermi-LAT Observations of TeV Gamma-Ray Sources Discovered by HAWC in the 2HWC Catalog. *Astrophysical Journal*, 866(1), 24. doi:10.3847/1538-4357/aade4e

Abrahao, T., Almazan, H., dos Anjos, J. C., Appel, S., Bekman, I., Bezerra, T. J. C., ... Yermia, F. (2018). Novel event classification based on spectral analysis of scintillation waveforms in Double Chooz. *Journal*

of Instrumentation, 13, P01031. doi:10.1088/1748-0221/13/01/P01031

Ackermann, D., Mistry, A. K., Hessberger, F. P., Andel, B., Antalic, S., Block, M., ... Zhang, Z. (2018). COMPASS-A COMPAct decay spectroscopy set-up. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 907, 81–89. doi:10.1016/j.nima.2018.01.096

Ackermann, M., Ajello, M., Albert, A., Atwood, W. B., Baldini, L., Ballet, J., ... Rephaeli, Y. (2018). Search for Gamma-Ray Emission from the Coma Cluster with Six Years of Fermi-LAT Data (vol 819, 149, 2016). Astrophysical Journal, 860(1), 85. doi:10.3847/1538-4357/aac7c3

Adami, C., Giles, P., Koulouridis, E., Pacaud, F., Caretta, C. A., Pierre, M., ... Willis, J. (2018). The XXL Survey XX. The 365 cluster catalogue. Astronomy and Astrophysics; EDP Sciences, Les Ulis Cedex A France, 620, A5. doi:10.1051/0004-6361/201731606

Aghion, S., Amsler, C., Antonello, M., Belov, A., Bonomi, G., Brusa, R. S., ... Zurlo, N. (2018). Producing long-lived $2(3)S$ positronium via $3(3)P$ laser excitation in magnetic and electric fields. Physical Review A, 98(1), 013402. doi:10.1103/PhysRevA.98.013402

Aghion, S., Amsler, C., Antonello, M., Belov, A., Bonomi, G., Brusa, R. S., ... Zurlo, N. (2018). Antiproton tagging and vertex fitting in a Timepix3 detector. Journal of Instrumentation, 13, P06004. doi:10.1088/1748-0221/13/06/P06004

Aghion, S., Amsler, C., Bonomi, G., Brusa, R. S., Caccia, M., Caravita, R., ... Antonello, M. (2018). Compression of a mixed antiproton and electron non-neutral plasma to high densities. European Physical Journal D: Atomic, Molecular, Optical and Plasma Physics, 72(4), 76. doi:10.1140/epjd/e2018-80617-x

Agostini, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., Bauer, C., ... Zuzel, G. (2018). Upgrade for Phase II of the GERDA experiment. European Physical Journal C, 78(5), 388. doi:10.1140/epjc/s10052-018-5812-2

Agostini, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., Bauer, C., ... Zuzel, G. (2018). Improved Limit on Neutrinoless Double- β Decay of ^{76}Ge from GERDA Phase II. Physical Review Letters, 120(13), 132503. doi:10.1103/PhysRevLett.120.132503

Agostini, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., Bauer, C., ... Zuzel, G. (2018). GERDA results and the future perspectives for the neutrinoless double beta decay search using Ge-76. International Journal of Modern Physics A, 33, 1843004. doi:10.1142/S0217751X18430042

Aharonian, F. A., Akamatsu, H., Akimoto, F., Allen, S. W., Angelini, L., Audard, M., ... Uchida, Y. (2018). Detection of polarized gamma-ray emission from the Crab nebula with the Hitomi Soft Gamma-ray Detector. Publications of the Astronomical Society of Japan, 70(6), psy113. doi:10.1093/pasj/psy118

Aharonian, F. A., Akamatsu, H., Akimoto, F., Allen, S. W., Angelini, L., Audard, M., ... Guest, B. (2018). Hitomi X-ray observation of the pulsar wind nebula G21.5-0.9. Publications of the Astronomical Society of Japan, 70(3), 38. doi:10.1093/pasj/psy027

Aharonian, F. A., Akamatsu, H., Akimoto, F., Allen, S. W., Angelini, L., Audard, M., ... Zoghbi, A. (2018). Hitomi observations of the LMC SNR N 132 D: Highly redshifted X-ray emission from iron ejecta. Publications of the Astronomical Society of Japan, 70(2), 16. doi:10.1093/pasj/psx151

Aharonian, F., Akamatsu, H., Akimoto, F., Allen, S. W., Angelini, L., Audard, M., ... Zoghbi, A. (2018). Atmospheric gas dynamics in the Perseus cluster observed with Hitomi. Publications of the Astronomical

Society of Japan, 70(2), 9. doi:10.1093/pasj/psx138

Aharonian, F., Akamatsu, H., Akimoto, F., Allen, S. W., Angelini, L., Audard, M., ... Zoghbi, A. (2018). Temperature structure in the Perseus cluster core observed with Hitomi. Publications of the Astronomical Society of Japan, 70(2), 11. doi:10.1093/pasj/psy004

Aharonian, F., Akamatsu, H., Akimoto, F., Allen, S. W., Angelini, L., Audard, M., ... Zoghbi, A. (2018). Measurements of resonant scattering in the Perseus Cluster core with Hitomi SXS. Publications of the Astronomical Society of Japan, 70(2), 10. doi:10.1093/pasj/psx127

Aharonian, F., Akamatsu, H., Akimoto, F., Allen, S. W., Angelini, L., Audard, M., ... Raassen, A. J. J. (2018). Atomic data and spectral modeling constraints from high-resolution X-ray observations of the Perseus cluster with Hitomi. Publications of the Astronomical Society of Japan, 70(2), 12. doi:10.1093/pasj/psx156

Akhmedov, E. K., Arcadi, G., Lindner, M., & Vogl, S. (2018). Coherent scattering and macroscopic coherence: Implications for neutrino, dark matter and axion detection. Journal of High Energy Physics : JHEP, 2018(10), 045. doi:10.1007/JHEP10(2018)045

Alanne, T., Bizot, N., Cacciapaglia, G., & Sannino, F. (2018). Classification of NLO operators for composite Higgs models. Physical Review D, 97(07), 075028. doi:10.1103/PhysRevD.97.075028

Alanne, T., & Blasi, S. (2018). The beta-function for Yukawa theory at large N-f (vol 08, 081, 2018). Journal of High Energy Physics : JHEP, 2018(9), 165. doi:10.1007/JHEP09(2018)165

Alanne, T., & Blasi, S. (2018). The β -function for Yukawa theory at large Nf. Journal of High Energy Physics : JHEP, 2018(08), 081. doi:10.1007/JHEP08(2018)081

Alanne, T., & Blasi, S. (2018). The abelian gauge-Yukawa β -functions at large Nf. Physical Review D, 99(11), 116004. doi:10.1103/PhysRevD.98.116004

Alanne, T., Blasi, S., & Goertz, F. (2019). Common source for scalars: Flavored axion-Higgs unification. Physical Review D, 99(01), 015028. doi:10.1103/PhysRevD.99.015028

Alanne, T., Franzosi, D. B., Frandsen, M. T., Kristensen, M. L. A., Meroni, A., & Rosenlyst, M. (2018). Partially composite Higgs models: Phenomenology and RG analysis. Journal of High Energy Physics : JHEP, 2018(01), 051. doi:10.1007/JHEP01(2018)051

Alanne, T., Franzosi, D. B., Frandsen, M. T., & Rosenlyst, M. (2018). Dark matter in (partially) composite Higgs models. Journal of High Energy Physics : JHEP, 2019(12), 088. doi:10.1007/JHEP12(2018)088

Allemandou, N., Almazan, H., Sanchez, P. del A., Bernard, L., Bernard, C., Blanchet, A., ... Zsoldos, S. (2018). The STEREO Experiment. Journal of Instrumentation, 13, P07009. doi:10.1088/1748-0221/13/07/P07009

Almazán, H., Sanchez, P. del A., Bernard, L., Blanchet, A., Bonhomme, A., Buck, C., ... Zsoldos, S. (2018). Sterile Neutrino Constraints from the STEREO Experiment with 66 days of Reactor-on Data. Physical Review Letters, 121(16), 161801. doi:10.1103/PhysRevLett.121.161801

Alvarez-Muniz, J., Carvalho Jr., W. R., Payet, K., Romero-Wolf, A., Schoorlemmer, H., & Zas, E. (2018). Comprehensive approach to tau-lepton production by high-energy tau neutrinos propagating through the Earth. Physical Review D, 97(2), 023021. doi:10.1103/PhysRevD.97.023021

Ames, F., Baartman, R., Barquest, B., Barquest, C., Blessenohl, M., Crespo Lopez-Urrutia, J. R., ... Sami-

nathan, S. (2018). The CANREB Project for Charge State Breeding at TRIUMF. AIP Conference Proceedings, 2011, 070010. doi:10.1063/1.5053352

Amini, K., Sclafani, M., Steinle, T., Saavedra, J., Mueller, C., Yue, L., ... Biegert, J. (2018). Direct imaging of ultrafast structural deformations in excited state neutral polyatomic molecules using laser-induced electron diffraction. Abstracts of Papers of the American Chemical Society, 256, 12.

Angioi, A., & Di Piazza, A. (2018). Quantum Limitation to the Coherent Emission of Accelerated Charges. Physical Review Letters, 121(1), 010402 . doi:10.1103/PhysRevLett.121.010402

Arcadi, G. (2018). 2HDM portal for Singlet-Doublet Dark Matter. European Physical Journal C, 78, 864. doi:10.1140/epjc/s10052-018-6327-6

Arcadi, G., Campos, M., Lindner, M., Masiero, A., & Queiroz, F. (2018). The Dark Sequential Z' Portal: Collider and Direct Detection Experiments. Physical Review D, 97(04), 043009. doi:10.1103/PhysRevD.97.043009

Arcadi, G., Dutra, M., Ghosh, P., Lindner, M., Mambrini, Y., Pierre, M., ... Queiroz, F. (2018). The Waning of the WIMP? A Review of Models, Searches, and Constraints. European Physical Journal C - Particles and Fields, 78, 203. doi:10.1140/epjc/s10052-018-5662-y

Arcadi, G., Ferreira, C. P., Goertz, F., Guzzo, M. M., Queiroz, F., & Santos, A. C. O. (2018). Lepton Flavor Violation Induced by Dark Matter. Physical Review D, 97(07), 075022. doi:10.1103/PhysRevD.97.075022

Arcadi, G., Hugle, T., & Queiroz, F. (2018). The dark $L\mu - L\tau$ rises via kinetic mixing. Physics Letters B, 84, 151–158. doi:10.1016/j.physletb.2018.07.028

Arcadi, G., Lindner, M., Queiroz, F., Rodejohann, W., & Vogl, S. (2018). Pseudoscalar Mediators: A WIMP model at the Neutrino Floor. Journal of Cosmology and Astroparticle Physics, 2018(03), 042. doi:10.1088/1475-7516/2018/03/042

Arenz, M., Baek, W.-J., Beck, M., Beglarian, A., Behrens, J., Bergmann, T., ... Zadoroghy, S. (2018). First transmission of electrons and ions through the KATRIN beamline. Journal of Instrumentation, 13, P04020. doi:10.1088/1748-0221/13/04/P04020

Arenz, M., Baek, W.-J., Beck, M., Beglarian, A., Behrens, J., Bergmann, T., ... Zadoroghy, S. (2018). Calibration of high voltages at the ppm level by the difference of 83m Kr conversion electron lines at the KATRIN experiment. The European Physical Journal C: Particles and Fields, 78, 368. doi:10.1140/epjc/s10052-018-5832-y

Arenz, M., Baek, W.-J., Beck, M., Beglarian, A., Behrens, J., Bergmann, T., ... Zadoroghy, S. (2018). The KATRIN Superconducting Magnets: Overview and First Performance Results. Journal of Instrumentation, 13, T08005. doi:10.1088/1748-0221/13/08/T08005

Asano, A., Berge, D., Bonanno, G., Bryan, M., Ben, G., Grillo, A., ... Zink, A. (2018). Evaluation of silicon photomultipliers for dual-mirror Small-Sized Telescopes of Cherenkov Telescope Array. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 912, 177–181. doi:10.1016/j.nima.2017.11.017

Augustin, S., Schulz, M., Schmid, G., Schnorr, K., Gryzlova V, E., Lindenblatt, H. C., ... Moshammer, R. (2018). Signatures of autoionization in the angular electron distribution in two-photon double ionization of Ar. Physical Review A, 98(3), 033408. doi:10.1103/PhysRevA.98.033408

Ban, G., Bison, G., Bodek, K., Daum, M., Fertl, M., Franke, B., ... Zsigmond, G. (2018). Demonstration of sensitivity increase in mercury free-spin-precession magnetometers due to laser-based readout for neutron electric dipole moment searches. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 896, 129–138. doi:10.1016/j.nima.2018.04.025

Baumholzer, S., Brdar, V., & Schwaller, P. (2018). The new vMSM (vvMSM): radiative neutrino masses, keV-scale dark matter and viable leptogenesis with sub-TeV new physics. *Journal of High Energy Physics : JHEP*, 2018(8), 067. doi:10.1007/JHEP08(2018)067

Becquet, V., & Cavaletto, S. (2018). Transient-absorption phases with strong probe and pump pulses. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 51, 035501. doi:10.1088/1361-6455/aa8e6a

Bekker, H., Hensel, C., Daniel, A., Windberger, A., Pfeifer, T., & Crespo López-Urrutia, J. R. (2018). Laboratory precision measurements of optical emissions from coronal iron. *Physical Review A*, 98(6), 062514. doi:10.1103/PhysRevA.98.062514

Benato, G., Biare, D., Bucci, C., Di Paolo, L., Drobizhev, A., Kadel, R. W., ... Zimmermann, S. (2018). Radon mitigation during the installation of the CUORE 0νββ decay detector. *Journal of Instrumentation*, 13, P01010. doi:10.1088/1748-0221/13/01/P01010

Benedetti, A., Tamburini, M., & Keitel, C. H. (2018). Giant collimated gamma-ray flashes. *Nature Photonics*, 12, 319–323. doi:10.1038/s41566-018-0139-y

Beyer, K. A., Reville, B., Bott, A. F. ~A., Park, H.-S., Sarkar, S., & Gregori, G. (2018). Analytical estimates of proton acceleration in laser-produced turbulent plasmas. *Journal of Plasma Physics*, 84(6), 905840608. doi:10.1017/S0022377818001149

Bilous, P. V., Minkov, N., & Pálffy, A. (2018). Electric quadrupole channel of the 7.8 eV ^{229}Th transition. *Physical Review C*, 97(4), 044320. doi:10.1103/PhysRevC.97.044320

Bilous, P., Peik , E., & Pálffy, A. (2018). Laser-induced electronic bridge for characterization of the $^{229\text{m}}\text{Th} \rightarrow ^{229\text{g}}\text{Th}$ nuclear transition with a tunable optical laser with a tunable optical laser. *New Journal of Physics*, 20, 013016. doi:10.1088/1367-2630/aa9cd9

Bischer, I., Rodejohann, W., & Xu, X. (2018). Loop-induced Neutrino Non-Standard Interactions. *Journal of High Energy Physics : JHEP*, 2018(10), 96. doi:10.1007/JHEP10(2018)096

Blessenohl, M., Dobrodey, S., Warnecke, C., Rosner, M., Graham, L., Paul, S., ... Crespo López-Urrutia, J. R. (2018). An electron beam ion trap and source for re-acceleration of rare-isotope ion beams at TRIUMF . *Review of Scientific Instruments*, 89(5), 052401. doi:10.1063/1.5021045

Bogovalov, S. V., Contopoulos, I., Prosekin, A., Tronin, I., & Aharonian, F. A. (2018). Magnetic absorption of VHE photons in the magnetosphere of the Crab pulsar. *Monthly Notices of the Royal Astronomical Society*, 476(3), 4213–4223. doi:10.1093/mnras/sty455

Bohman, M., Mooser, A., Schneider, G., Schön, N., Wiesinger, M., Harrington, J., ... Ulmer, S. (2018). Sympathetic cooling of protons and antiprotons with a common endcap Penning trap. *Journal of Modern Optics*, 65(5-6), 601–609. doi:10.1080/09500340.2017.1404656

Braidotti, M. C., Conti, C., Faizal, M., Dey, S., Alasfar, L., Alsaleh, S., & Ashour, A. (2018). Path integral for non-paraxial optics. *EPL*, 124(4), 44001. doi:10.1209/0295-5075/124/44001

Brdar , V., Lindner, M., & Xu, X. (2018). Neutrino astronomy with supernova neutrinos. *Journal of Cosmology and Astroparticle Physics*, 2018(04), 025. doi:10.1088/1475-7516/2018/04/025

Brdar, V., Kopp, J., Liu, J., & Wang, X.-P. (2018). X-Ray Lines from Dark Matter Annihilation at the keV Scale. *Physical Review Letters*, 120(6), 061301. doi:10.1103/PhysRevLett.120.061301

Brdar, V., Rodejohann, W., & Xu, X. (2018). Producing a new fermion in coherent elastic neutrino-nucleus scattering: from neutrino mass to dark matter. *Journal of High Energy Physics : JHEP*, 2018(12), 024. doi:10.1007/JHEP12(2018)024

Breitenfeldt, C., Blaum, K., George, S., Göck, J., Guzmán-Ramírez, G., Karthein, J., ... Wolf, A. (2018). Long-Term Monitoring of the Internal Energy Distribution of Isolated Cluster Systems. *Physical Review Letters*, 120(25), 253001. doi:10.1103/PhysRevLett.120.253001

Burger, C., Atia-Tul-Noor, A., Schnappinger, T., Xu, H., Rosenberger, P., Haram, N., ... Kling, M. F. (2018). Time-resolved nuclear dynamics in bound and dissociating acetylene. *Structural Dynamics*, 5(4), 044302. doi:10.1063/1.5037686

Capel, P., Durant, V., Huth, L., Hammer, H.-W., Phillips, D. R., & Schwenk, A. (2018). From ab initio structure predictions to reaction calculations via EFT. *Journal of Physics: Conference Series*, 1023(conference 1), 012010. doi:10.1088/1742-6596/1023/1/012010

Carmona, A., & Goertz, F. (2018). Recent B physics anomalies: a first hint for compositeness? *European Physical Journal C - Particles and Fields*, 78(11), 979. doi:10.1140/epjc/s10052-018-6437-1

Carpeggiani, P. A., Reduzzi, M., Comby, A., Ahmadi, H., Kuhn, S., Frassetto, F., ... Sansone, G. (2018). Attosecond electronic recollision as field detector. *Journal of Physics B*, 51(10), 104004. doi:10.1088/1361-6455/aabc24

Carr, R., Coleman, J., Gratta, G., Heeger, K., Huber, P., Hor, Y., ... Zhan, L. (2018). Neutrino physics for Korean diplomacy. *Science*, 362(6415), 649–650. doi:10.1126/science.aav8136

Catena, R., Conrad, J., Döring, C., Ferella, A. D., & Krauss, M. B. (2018). Dark matter spin determination with directional direct detection experiments. *Physical Review D*, 97(2), 023007. doi:10.1103/PhysRevD.97.023007

Cerchiari, G., Erlewein, S., Koenig, C., & Kellerbauer, A. (2018). Loading of a continuous anion beam into a Penning trap with a view to laser cooling. *Physical Review A*, 98(2), 021402. doi:10.1103/PhysRevA.98.021402

Cerchiari, G., Kellerbauer, A., Safronova , M. S., Safronova , U. I., & Yzombard, P. (2018). Ultracold Anions for High-Precision Antihydrogen Experiments. *Physical Review Letters*, 120(13), 133205. doi:10.1103/PhysRevLett.120.133205

Chen, L., Ren, X., Hossen, K., Wang, E., Chen, X., & Dorn, A. (2018). Two-center interference in electron-impact ionization of molecular hydrogen. *Physical Review A*, 97(2), 022706. doi:10.1103/PhysRevA.97.022706

Chen ye, Y., Liu, R., & Wang , X.-Y. (2018). Constraints on the bulk Lorentz factor of gamma-ray bursts with the detection rate by Fermi LAT. *Monthly Notices of the Royal Astronomical Society*, 478(1), 749–757. doi:10.1093/mnras/sty1171

Chen, Y.-Y., Li, J.-X., Hatsagortsyan, K. Z., & Keitel, C. H. (2018). γ -Ray Beams with Large Orbital Angular

Momentum via Nonlinear Compton Scattering with Radiation Reaction. *Physical Review Letters*, 121(7), 074801 . doi:10.1103/PhysRevLett.121.074801

Chhetri, P., Moodley, C. S., Raeder, S., Block, M., Giacoppo, F., Goetz, S., ... Walther, T. (2018). Investigation of the First Ionization Potential of Ytterbium in Argon Buffer Gas. *Acta Physica Polonica B*, 49(3), 599–603. doi:10.5506/APhysPolB.49.599

Chiappetti, L., Fotopoulou, S., Lidman, C., Faccioli, L., Pacaud, F., Elyiv, A., ... Wagner, G. (2018). The 3XLSS point source catalogue. *Astronomy and Astrophysics*, 620, A12. doi:10.1051/0004-6361/201731880

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). Detection of variable VHE gamma-ray emission from the extra-galactic gamma-ray binary LMC P3. *Astronomy and Astrophysics*, 610, L17. doi:10.1051/0004-6361/201732426

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). The H.E.S.S. Galactic plane survey. *Astronomy and Astrophysics*, 612(Special Issue), A1. doi:10.1051/0004-6361/201732098

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). H.E.S.S. observations of RX J1713.7-3946 with improved angular and spectral resolution; evidence for gamma-ray emission extending beyond the X-ray emitting shell. *Astronomy and Astrophysics*, 612(Special Issue), A6. doi:10.1051/0004-6361/201629790

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). The supernova remnant W49B as seen with H.E.S.S. and Fermi-LAT. *Astronomy and Astrophysics*, 612(Special Issue), A5. doi:10.1051/0004-6361/201527843

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). The population of TeV pulsar wind nebulae in the H.E.S.S. Galactic Plane Survey. *Astronomy and Astrophysics*, 612(Special Issue), A2. doi:10.1051/0004-6361/201629377

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). Extended VHE gamma-ray emission towards SGR1806-20, LBV1806-20, and stellar cluster Cl*1806-20. *Astronomy and Astrophysics*, 612(Special Issue), A11. doi:10.1051/0004-6361/201628695

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). Characterising the VHE diffuse emission in the central 200 parsecs of our Galaxy with H.E.S.S. *Astronomy and Astrophysics*, 612(Special Issue), A9. doi:10.1051/0004-6361/201730824

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). A search for new supernova remnant shells in the Galactic plane with H.E.S.S. *Astronomy and Astrophysics*, 612(Special Issue), A8. doi:10.1051/0004-6361/201730737

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). Detailed spectral and morphological analysis of the shell type SNR RCW 86. *Astronomy and Astrophysics*, 612(Special Issue), A4. doi:10.1051/0004-6361/201526545

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). HESS J1741-302: a hidden accelerator in the Galactic plane. *Astronomy and Astrophysics*, 612(Special Issue), A13. doi:10.1051/0004-6361/201730581

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ...

... Zywucka, N. (2018). Population study of Galactic supernova remnants at very high γ -ray energies with H.E.S.S. *Astronomy and Astrophysics*, 612(Special Issue), A3. doi:10.1051/0004-6361/201732125

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). Systematic search for very-high-energy gamma-ray emission from bow shocks of runaway stars. *Astronomy and Astrophysics*, 612(Special Issue), A12. doi:10.1051/0004-6361/201630151

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). A search for very high-energy flares from the microquasars GRS 1915+105, Circinus X-1, and V4641 Sgr using contemporaneous H.E.S.S. and RXTE observations. *Astronomy and Astrophysics*, 612(Special Issue), A10. doi:10.1051/0004-6361/201527773

Collaboration, H. E. S. S., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Zywucka, N. (2018). Deeper H.E.S.S. observations of Vela Junior (RX J0852.0–4622): Morphology studies and resolved spectroscopy. *Astronomy and Astrophysics*, 612(Special Issue), A7. doi:10.1051/0004-6361/201630002

Collaboration, H. E. S. S., Collaboration, M., Abdalla, H., Abramowski, A., Aharonian, F., Ait Benkhali, F., ... Zarić, D. (2018). Constraints on particle acceleration in SS433/W50 from MAGIC and H.E.S.S. observations. *Astronomy and Astrophysics*, 612(Special Issue), A14. doi:10.1051/0004-6361/201731169

Cubiss, J. G., Barzakh, A. E., Andreyev, A. N., Monthery, M. A., Althubiti, N., Andel, B., ... Zuber, K. (2018). Change in structure between the $I=1/2$ states in ^{181}Tl and $^{177,179}\text{Au}$. *Physics Letters B*, 786, 355–363. doi:10.1016/j.physletb.2018.10.005

Cubiss, J. G., Barzakh, A. E., Seliverstov, M. D., Andreyev, A. N., Andel, B., Antalic, S., ... Zuber, K. (2018). Charge radii and electromagnetic moments of $^{195–211}\text{At}$. *Physical Review C*, 97(5), 054327. doi:10.1103/PhysRevC.97.054327

Daněk, J., Hatsagortsyan, K. Z., & Keitel, C. H. (2018). Analytical approach to Coulomb focusing in strong-field ionization. I. Nondipole effects. *Physical Review A*, 97(6), 063409. doi:10.1103/PhysRevA.97.063409

Daněk, J., Hatsagortsyan, K. Z., & Keitel, C. H. (2018). Analytical approach to Coulomb focusing in strong-field ionization. II. Multiple recollisions. *Physical Review A*, 97(6), 063410. doi:10.1103/PhysRevA.97.063410

Daněk, J., Klaiber, M., Hatsagortsyan, K. Z., Keitel, C. H., Willenberg, B., Mauer, J., ... Keller, U. (2018). Interplay between Coulomb-focusing and non-dipole effects in strong-field ionization with elliptical polarization. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 51(11), 114001. doi:10.1088/1361-6455/aaba42

De Angelis, A., Tatischeff, V., Grenier, I. A., McEnery, J., Mallamaci, M., Tavani, M., ... Zoglauer, A. (2018). Science with e-ASTROGAM A space mission for MeV-GeV gamma-ray astrophysics. *Journal of High Energy Astrophysics*, 19, 1–106. doi:10.1016/j.jheap.2018.07.001

Di Piazza, A., Tamburini, M., Meuren, S., & Keitel, C. H. (2018). Implementing nonlinear Compton scattering beyond the local-constant-field approximation. *Physical Review A*, 98(1), 012134 . doi:10.1103/PhysRevA.98.012134

Di Piazza, A. (2018). Analytical infrared limit of nonlinear Thomson scattering including radiation reaction. *Physics Letters B*, 782, 559–565. doi:10.1016/j.physletb.2018.05.081

Di Piazza, A. (2018). Completeness and orthonormality of the Volkov states and the Volkov propagator in configuration space. *Physical Review D*, 97(5), 056028 . doi:10.1103/PhysRevD.97.056028

Dilling, J., Blaum, K., Brodeur, M., & Eliseev, S. (2018). Penning-Trap Mass Measurements in Atomic and Nuclear Physics. *Annual Review of Nuclear and Particle Sciences*, 68, 45–74. doi:10.1146/annurev-nu-cl-102711-094939

Domula, A., Hult, M., Kermaidic, Y., Marissens, G., Schwingenheuer, B., Wester, T., & Zuber, K. (2018). Pulse shape discrimination performance of inverted coaxial Ge detectors. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 891, 106–110. doi:10.1016/j.nima.2018.02.056

Dong , P. V., Huong , D. T., Queiroz, F., Valle , J. W. F., & Vaquera-Araujo, C. A. (2018). The dark side of flipped trinification. *Journal of High Energy Physics : JHEP*, 2018(4), 143. doi:10.1007/JHEPO4(2018)143

Doser, M., Aghion, S., Amsler, C., Bonomi, G., Brusa, R. S., Caccia, M., ... Zurlo, N. (2018). AEgIS at ELENA: outlook for physics with a pulsed cold antihydrogen beam. *Philosophical Transactions of the Royal Society of London A*, 376(2116), 20170274. doi:10.1098/rsta.2017.0274

Durant, V., Capel, P., Huth, L., Balantekin, A. B., & Schwenk, A. (2018). Double-folding potentials from chiral effective field theory. *Physics Letters B*, 782, 668–674. doi:10.1016/j.physletb.2018.05.084

Dutra, M., Lindner, M., Profumo, S., Queiroz, F. S., Rodejohann, W., & Siqueira, C. (2018). MeV Dark Matter Complementarity and the Dark Photon Portal. *Journal of Cosmology and Astroparticle Physics*, 2018(03), 037. doi:10.1088/1475-7516/2018/03/037

Erk, B., Mueller, J. P., Bomme, C., Boll, R., Brenner, G., Chapman, H. N., ... Rolles, D. (2018). CAMP@FLASH: an end-station for imaging, electron- and ion-spectroscopy, and pump-probe experiments at the FLASH free-electron laser. *Journal of Synchrotron Radiation*, 25, 1529–1540. doi:10.1107/S1600577518008585

Farahi, A., Guglielmo, V., Evrard, A. E., Poggianti, B. M., Adami, C., Ettori, S., ... Valtchanov, I. (2018). The XXL Survey XXIII. The mass scale of XXL clusters from ensemble spectroscopy. *Astronomy and Astrophysics*, 620, A8. doi:10.1051/0004-6361/201731321

Farzan, Y., Lindner, M., Rodejohann, W., & Xu, X. (2018). Probing neutrino coupling to a light scalar with coherent neutrino scattering. *Journal of High Energy Physics : JHEP*, 2018, 066. doi:10.1007/JHEP05(2018)066

Ferreira Jr., J. G., Pires, C. A. de S., da Silva, P. S. R., & Siqueira, C. (2018). On the Higgs-like boson in the minimal supersymmetric 3-3-1 model. *European Physical Journal C*, 78(3), 225. doi:10.1140/epjc/s10052-018-5705-4

Fieguth, A., Hoferichter, M., Klos, P., Menéndez, J., Schwenk, A., & Weinheimer, C. (2018). Discriminating WIMP-nucleus response functions in present and future XENON-like direct detection experiments. *Physical Review D*, 97(10), 103532. doi:10.1103/PhysRevD.97.103532

Fu, C. Y., Zhang, Y. H., Zhou, X. H., Wang, M., Litvinov, Y. A., Blaum, K., ... Xu, F. R. (2018). Masses of the $T_z = -3/2$ nuclei ^{27}P and ^{29}S . *Physical Review C*, 98(1), 014315. doi:10.1103/PhysRevC.98.014315

Giacinti, G., Kachelriess, M., & Semikoz V. D. (2018). Reconciling cosmic ray diffusion with Galactic magnetic field models. *Journal of Cosmology and Astroparticle Physics*, 2018(7), 051. doi:10.1088/1475-7516/2018/07/051

Giacinti, G., & Kirk, J. G. (2018). Acceleration of X-Ray Emitting Electrons in the Crab Nebula. *Astrophysical Journal*, 863(1), 18. doi:10.3847/1538-4357/aacffb

Giacinti, G., & Kirk, J. G. (2018). Cosmic-Ray Anisotropy and the Local Interstellar Turbulence. *Nuclear and Particle Physics Proceedings*, 297–299, 125–128. doi:10.1016/j.nuclphysbps.2018.07.019

Giacinti, G., & Taylor, A. M. (2018). Galactic Cosmic-Rays in a Breeze. *Nuclear and Particle Physics Proceedings*, 297–299, 63–71. doi:10.1016/j.nuclphysbps.2018.07.010

Gong, M., Li, X., Zhang, S. B., Niu, S., Ren, X., Wang, E., ... Chen, X. (2018). Multicenter three-distorted-wave approach to three-dimensional images for electron-impact-ionization dynamics of molecules: Overall agreement with experiment. *Physical Review A*, 98(4), 042710. doi:10.1103/PhysRevA.98.042710

Gorham, P. W., Allison, P., Banerjee, O., Batten, L., Beatty, J. J., Bechtol, K., ... Wissel, S. A. (2018). Constraints on the diffuse high-energy neutrino flux from the third flight of ANITA. *Physical Review D*, 98(2), 022001. doi:10.1103/PhysRevD.98.022001

Groote, M. W., Dvornik, A., Laureijs, R. J., Tuffs, R. J., Popescu, C. C., Robotham, A. S. G., ... Wang, L. (2018). Galaxy And Mass Assembly (GAMA): gas fuelling of spiral galaxies in the local Universe II. - direct measurement of the dependencies on redshift and host halo mass of stellar mass growth in central disc galaxies. *Monthly Notices of the Royal Astronomical Society*, 477(1), 1015–1034. doi:10.1093/mnras/sty688

Gu, L., Mao, J., de Plaa, J., Raassen, A. J. J., Shah, C., & Kaastra, J. S. (2018). Charge exchange in galaxy clusters. *Astronomy and Astrophysics*, 611, A26. doi:10.1051/0004-6361/201731861

Guglielmo, V., Poggianti, B. M., Vulcani, B., Adami, C., Gastaldello, F., Ettori, S., ... Willis, J. (2018). The XXL Survey: XXII. The XXL-North spectrophotometric sample and galaxy stellar mass function in X-ray detected groups and clusters. *Astronomy and Astrophysics*, 620, A7. doi:10.1051/0004-6361/201730709

Gunst, J., Wu, Y., Keitel, C. H., & Pálffy, A. (2018). Nuclear excitation by electron capture in optical-laser-generated plasmas. *Physical Review E*, 97(6), 063205 . doi:10.1103/PhysRevE.97.063205

Guo, C., Harth, A., Carlstrom, S., Cheng, Y.-C., Mikaelsson, S., Marsell, E., ... L'Huillier, A. (2018). Phase control of attosecond pulses in a train. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 51(3), 034006. doi:10.1088/1361-6455/aa9953

Abdalla, H., Aharonian, F., Ait Benkhali, F., Angüner, E. O., Arakawa, M., Arcaro, C., ... Źywucka, N. (2018). VHE gamma-ray discovery and multi-wavelength study of the blazar 1ES 2322-409. *Monthly Notices of the Royal Astronomical Society*, 482(3), 3011–3022. doi:10.1093/mnras/sty2686

Hammen, M., Nörterhäuser, W., Balabanski, D. L., Bissell, M. L., Blaum, K., Budinčević, I., ... Yordanov, D. T. (2018). From Calcium to Cadmium: Testing the Pairing Functional through Charge Radii Measurements of 100-130Cd. *Physical Review Letters*, 121(10), 102501. doi:10.1103/PhysRevLett.121.102501

Hansen, R. S. L., & Smirnov, A. (2018). Neutrino conversion in a neutrino flux: towards an effective theory of collective oscillations. *Journal of Cosmology and Astroparticle Physics*, 2018(4), 057. doi:10.1088/1475-7516/2018/04/057

Harth, A., Guo , C., Cheng, Y.-C., Losquin, A., Miranda, M., Mikaelsson, S., ... Arnold , C. L. (2018). Compact 200kHz HHG source driven by a few-cycle OPCPA. *Journal of Optics*, 20(1), 014007. doi:10.1088/2040-8986/aa9b04

HAWC Collaboration Abeysekara, A. U., Albert, A. M., Alfaro, R., Alvarez, C., Álvarez, J. D., Arceo, R., ... Zhou, H. (2018). A Search for Dark Matter in the Galactic Halo with HAWC. *Journal of Cosmology and Astroparticle Physics*, 2018(02), 049. doi:10.1088/1475-7516/2018/02/049

HAWC Collaboration Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Arceo, R., Arteaga-Velázquez, J. C., ... Alvarez, J. D. (2018). Constraining the p-/p Ratio in TeV Cosmic Rays with Observations of the Moon Shadow by HAWC. *Physical Review D*, 97(10), 102005. doi:10.1103/PhysRevD.97.102005

HAWC Collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhou, H. (2018). Very high energy particle acceleration powered by the jets of the microquasar SS 433. *Nature*, 562(7725), 82–85. doi:10.1038/s41586-018-0565-5

HAWC Collaboration, Abeysekara, A. U., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., ... Zhou, H. (2018). Observation of Anisotropy of TeV Cosmic Rays with Two Years of HAWC. *Astrophysical Journal*, 865(1), 57. doi:10.3847/1538-4357/aad90c

HAWC collaboration, Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., Arceo, R., ... Zhou, H. (2018). Dark Matter Limits From Dwarf Spheroidal Galaxies with The HAWC Gamma-Ray Observatory. *Astrophysical Journal*, 853(2), 154. doi:10.3847/1538-4357/aaa6d8

HAWC collaboration, Albert, A., Alfaro, R., Alvarez, C., Alvarez, J. D., Arceo, R., ... Zhou, H. (2018). Search for Dark Matter Gamma-ray Emission from the Andromeda Galaxy with the High-Altitude Water Cherenkov Observatory. *Journal of Cosmology and Astroparticle Physics*, 2018(06), 043. doi:10.1088/1475-7516/2018/06/043

HAWC Collaboration Albert, A., Alfaro, R., Alvarez, C., Arceo, R., Arteaga-Velázquez, J. C., Rojas, D. A., ... Zhou, B. (2018). First HAWC Observations of the Sun Constrain Steady TeV Gamma-Ray Emission. *Physical Review D*, 98(12), 123011. doi:10.1103/PhysRevD.98.123011

HAWC Collaboration Albert, A., Alfaro, R., Alvarez, C., Arceo, R., Arteaga-Velázquez, J. C., Rojas, D. A., ... Zhou, B. (2018). Constraints on Spin-Dependent Dark Matter Scattering with Long-Lived Mediators from TeV Observations of the Sun with HAWC. *Physical Review D*, 98(12), 123012. doi:10.1103/PhysRevD.98.123012

He, P.-L., Klaiber, M., Hatsagortsyan, K. Z., & Keitel, C. H. (2018). High-energy direct photoelectron spectroscopy in strong-field ionization. *Physical Review A*, 98(5), 053428. doi:10.1103/PhysRevA.98.053428

Heeck, J., & Rodejohann, W. (2018). Lepton Flavor Violation with Displaced Vertices. *Physics Letters B*, 776, 385–390. doi:10.1016/j.physletb.2017.11.067

Higuchi, T., Harrington, J. A., Borchert, M. J., Blessing, P. E., Devlin, J. A., Morgner, J., ... Ulmer, S. (2018). Progress towards an improved comparison of the proton-to-antiproton charge-to-mass ratios. *Hyperfine Interactions*, 239, 27. doi:10.1007/s10751-018-1499-x

Hofmann, W., & Hinton, J. (2018). Detectors for high-energy messengers from the Universe. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 907, 31–45. doi:10.1016/j.nima.2018.03.020

Hossen, K., Ren, X., Wang, E., Gong, M., Li Xingyu, Zhang, S. B., ... Dorn, A. (2018). Triple-differential cross sections for single ionization of CO₂ by 100eV electron impact. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 51(21), 215201. doi:10.1088/1361-6455/aae0ab

Hossen, K., Ren, X., Wang, E., Kumar s, S. V. K., & Dorn, A. (2018). An (e, 2e+ion) study of electron-

impact ionization and fragmentation of tetrafluoromethane at low energies. European Physical Journal C - Particles and Fields, 72(3), 43. doi:10.1140/epjd/e2017-80665-8

Hugle, T., Platscher, M., & Schmitz, K. (2018). Low-Scale Leptogenesis in the Scotogenic Neutrino Mass Model. Physical Review D, 98(02), 023020. doi:10.1103/PhysRevD.98.023020

Huth, L., Durant, V., Simonis, J., & Schwenk, A. (2018). Shell-model interactions from chiral effective field theory. Physical Review C, 98(04), 044301. doi:10.1103/PhysRevC.98.044301

Ibarra, A., Molinaro, E., & Vogl, S. (2018). Potential for probing three-body decays of Long-Lived Particles with MATHUSLA. Physics Letters B, 789, 127–131. doi:10.1016/j.physletb.2018.12.015

IceCube, Fermi-LAT, MAGIC, AGILE, ASAS-SN, HAWC, ... Hofmann. (2018). Multi-messenger observations of a flaring blazar coincident with high-energy neutrino IceCube-170922A. Science, 361(6398), eaat1378. doi:10.1126/science.aat1378

Jager, M. F., Ott, C., Kaplan , C. J., Kraus, P. M., Neumark , D. M., & Leone , S. R. (2018). Attosecond transient absorption instrumentation for thin film materials: Phase transitions, heat dissipation, signal stabilization, timing correction, and rapid sample rotation. Review of Scientific Instruments, 89(1), 013109. doi:10.1063/1.4994041

Jentschel, M., & Blaum, K. (2018). Balancing energy and mass with neutrons. Nature Physics, 14, 524–524. doi:10.1038/s41567-018-0132-x

Kafexhiu, E., Romoli , C., Taylor, A. M., & Aharonian, F. (2018). Energetic Gamma-Ray Emission from Solar Flares. Astrophysical Journal, 864(2), 148. doi:10.3847/1538-4357/aad801

Kang, H.-P., Xu, S.-P., Wang, Y.-L., Yu, S.-G., Zhao, X.-Y., Hao, X.-L., ... Xu, Z.-Z. (2018). Polarization effects in above-threshold ionization with a mid-infrared strong laser field. Journal of Physics B: Atomic, Molecular and Optical Physics, 51(10), 105601. doi:10.1088/1361-6455/aabce0

KATRIN Collaboration, Arenz, M., Baek, W.-J., Bauer, S., Beck, M., Beglarian, A., ... Zadorogny, S. (2018). Reduction of stored-particle background by a magnetic pulse method at the KATRIN experiment. European Physical Journal C, 78, 778. doi:10.1140/epjc/s10052-018-6244-8

Katsoulakos, G., & Rieger, F. M. (2018). Magnetospheric Gamma-Ray Emission in Active Galactic Nuclei. Astrophysical Journal, 852(2), 112. doi:10.3847/1538-4357/aaa003

Kellerbauer, A., & Mischke, A. (2018). Tribute to Thomas W. B. Kibble - Perspectives in Fundamental Physics. European Review, 26(1), 67–69. doi:10.1017/S1062798717000771

Khangulyan, D., Koldoba, A. V., Ustyugova, G. V., Bogovalov, S. V., & Aharonian, F. (2018). On the Anomalously Large Extension of the Pulsar Wind Nebula HESS J1825-137. Astrophysical Journal, 860(1), 59. doi:10.3847/1538-4357/aac20f

Klaiber, M., Hatsagortsyan, K. Z., & Keitel, C. H. (2018). Under-the-Tunneling-Barrier Recollisions in Strong-Field Ionization. Physical Review Letters, 120(1), 013201 . doi:10.1103/PhysRevLett.120.013201

Klos, P., König, S., Hammer, H.-W., Lynn, J. E., & Schwenk, A. (2018). Signatures of few-body resonances in finite volume. Physical Review C, 98(03), 034004. doi:10.1103/PhysRevC.98.034004

Kozlov, M. G., Safronova, M. S., Crespo López-Urrutia, J. R., & Schmidt, P. O. (2018). Highly charged ions: Optical clocks and applications in fundamental physics. Reviews of Modern Physics, 90, 045005 .

Kuebel, M., Arbeiter, M., Burger, C., Kling, N. G., Pischke, T., Moshammer, R., ... Bergues, B. (2018). Phase- and intensity-resolved measurements of above threshold ionization by few-cycle pulses. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 51(13), 134007. doi:10.1088/1361-6455/aac584

Kumar, S., Grussie, F., Suleimanov, Y. V., Guo, H., & Kreckel, H. (2018). Low temperature rates for key steps of interstellar gas-phase water formation. *Science Advances*, 4(6), eaar3417. doi:10.1126/sciadv.aar3417

Larsen, K. A., Trevisan, C. S., Lucchese, R. R., Heck, S., Iskandar, W., Champenois, E., ... Rescigno, T. N. (2018). Resonance signatures in the body-frame valence photoionization of CF₄. *Physical Chemistry Chemical Physics*, 20(32), 21075–21084. doi:10.1039/c8cp03637c

Lassalle , E., Champenois , C., Stout , B., Debierre, V., & Durt, T. (2018). Conditions for anti-Zeno-effect observation in free-space atomic radiative decay. *Physical Review A*, 97(6), 062122. doi:10.1103/PhysRevA.97.062122

Leistenschneider, E., Reiter, M. P., Andrés, S. A. S., Koottte, B., Holt, J. D., Navrátil, P., ... Dilling, J. (2018). Dawning of the N=32 shell closure seen through precision massmeasurements of neutron-rich titanium isotopes. *Physical Review Letters*, 120(6), 062503. doi:10.1103/PhysRevLett.120.062503

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., Akar, S., ... Zucchelli, S. (2018). Observation of the decay $\Lambda_b^0 \rightarrow \psi(2S)p\pi^-$. *Journal of High Energy Physics : JHEP*, 2018(8), 131. doi:10.1007/JHEP08(2018)131

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., Akar, S., ... Zucchelli, S. (2018). Measurement of the time-integrated CP asymmetry in $D^0 \rightarrow K_s^0 K_s^0$ decays. *Journal of High Energy Physics : JHEP*, (11), 048. doi:10.1007/JHEP11(2018)048

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albicocco, P., ... Zucchelli, S. (2018). Measurement of CP asymmetries in two-body $B_{(s)}^0$ -meson decays to charged pions and kaons. *Physical Review D*, 98(3), 032004. doi:10.1103/PhysRevD.98.032004

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albicocco, P., ... Zucchelli, S. (2018). Evidence for the decay $B_s^0 \rightarrow K^{*-0}\mu^+\mu^-$. *Journal of High Energy Physics : JHEP*, 2018(7), 020. doi:10.1007/JHEP07(2018)020

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2018). First observation of forward Z -> b(b)over-bar production in pp collisions at root s=8 TeV. *Physics Letters B*, 776, 430–439. doi:10.1016/j.physletb.2017.11.066

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2018). Measurement of CP observables in $B^\pm \rightarrow D^{(*)}K^\pm$ and $B^\pm \rightarrow D^{(*)}\pi^\pm$ decays. *Physics Letters B*, 777, 16–30. doi:10.1016/j.physletb.2017.11.070

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2018). Search for Dark Photons Produced in 13 TeV pp Collisions. *Physical Review Letters*, 120(6), 061801. doi:10.1103/PhysRevLett.120.061801

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2018). Studies of the resonance structure in $D^0 \rightarrow K^\pm\pi^\pm\pi^\pm\pi^\pm$ decays. *European Physical Journal C*, 78(6), 443. doi:10.1140/epjc/s10052-018-5758-4

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2018). Test of lepton flavor universality by the measurement of the $B^0 \rightarrow D^{*-} \tau^+ \nu_\tau$ branching fraction using three-prong τ decays. *Physical Review D*, 97(7), 072013. doi:10.1103/PhysRevD.97.072013

LHCb collaboration, Aaij, R., Adeva, B., Adinolfi, M., Ajaltouni, Z., Akar, S., Albrecht, J., ... Zucchelli, S. (2018). A measurement of the CP asymmetry difference between $\Lambda c^+ \rightarrow p K^- K^+$ and $p \pi^- \pi^+$ decays. *Journal of High Energy Physics : JHEP*, 2018(3), 182. doi:10.1007/JHEP03(2018)182

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2018). Measurement of Antiproton Production in pHe Collisions at $\sqrt{s_{NN}}=110$ GeV. *Physical Review Letters*, 121(22), 222001. doi:10.1103/PhysRevLett.121.222001

Li, J.-X., Chen, Y.-Y., Hatsagortsyan, K. Z., & Keitel, C. H. (2018). Single-Shot Carrier-Envelope Phase Determination of Long Superintense Laser Pulses. *Physical Review Letters*, 120(12), 124803. doi:10.1103/PhysRevLett.120.124803

Li, Y.-F., Zhao, Y.-T., Hatsagortsyan, K. Z., Keitel, C. H., & Li Jian-Xing. (2018). Electron-angular-distribution reshaping in the quantum radiation-dominated regime. *Physical Review A*, 98(5), 052120. doi:10.1103/PhysRevA.98.052120

Lindner, M., Queiroz, F., Rodejohann, W., & Xu, X. (2018). Neutrino-Electron Scattering: General Constraints on Z' and Dark Photon Models. *Journal of High Energy Physics : JHEP*, 2018, 098. doi:10.1007/JHEP05(2018)098

Lindner, M., Rodejohann, W., & Xu, X.-J. (2018). Neutrino parameters from reactor and accelerator neutrino experiments. *Physical Review D*, 97(7), 075024. doi:10.1103/PhysRevD.97.075024

Liu, R.-Y., Murase, K., Inoue, S., Ge, C., & Wang, X.-Y. (2018). Can Winds Driven by Active Galactic Nuclei Account for the Extragalactic Gamma-Ray and Neutrino Backgrounds? *Astrophysical Journal*, 858(1), 9. doi:10.3847/1538-4357/aaba74

Lonardoni, D., Carlson, J., Gandolfi, S., Lynn, J. E., Schmidt, K. E., Schwenk, A., & Wang, X. B. (2018). Properties of Nuclei up to $A=16$ using Local Chiral Interactions. *Physical Review Letters*, 120(12), 122502. doi:10.1103/PhysRevLett.120.122502

Lonardoni, D., Gandolfi, S., Lynn, J. E., Petrie, C., Carlson, J., Schmidt, K. E., & Schwenk, A. (2018). Auxiliary field diffusion Monte Carlo calculations of light and medium-mass nuclei with local chiral interactions. *Physical Review C*, 97(4), 044318. doi:10.1103/PhysRevC.97.044318

López-Coto, R.-, Parsons, R. D., Hinton, J. A., & Giacinti, G. (2018). An undiscovered pulsar in the Local Bubble as an explanation of the local high energy cosmic ray electron spectrum. *Physical Review Letters*, 121(25), 251106. doi:10.1103/PhysRevLett.121.251106

Lopez-Coto, R., Hahn, J., BenZvi, S., Dingus, B., Hinton, J., Nisa, M. U., ... Zhou, H. (2018). Effect of the diffusion parameters on the observed gamma-ray spectrum of sources and their contribution to the local all-electron spectrum: The EDGE code. *Astroparticle Physics*, 102, 1–11. doi:10.1016/j.astropartphys.2018.04.003

Lopez-Coto, R., & Giacinti, G. (2018). Constraining the properties of the magnetic turbulence in the Geminga region using HAWC gamma-ray data. *Monthly Notices of the Royal Astronomical Society*, 479(4), 4526–4534. doi:10.1093/mnras/sty1821

Lopez-Oramas, A., Blanch, O., de Ona Wilhelmi, E., Fernandez-Barral, A., Hadasch, D., Moretti, E., ... Za-

nin, R. (2018). VHE observations of binary systems performed with the MAGIC telescopes. International Journal of Modern Physics D, 27(10), 1844011. doi:10.1142/S0218271818440108

Lu, F., Grieser, M., Zhang, C., & Wang, Y. (2018). 3-D Nonlinear Theory for Sheet-Beam Folded-Wave-guide Traveling-Wave Tubes . IEEE Transactions on Electron Devices, 65(11), 5103–5110. doi:10.1109/TED.2018.2871848

Lubashevskiy, A., Agostini, M., Budjas, D., Gangapshev , A., Gusev, K., Heisel, M., ... Zuzel, G. (2018). Mitigation of $^{42}\text{Ar}/^{42}\text{K}$ background for the GERDA Phase II experiment. European Physical Journal C, 78(1), 15. doi:10.1140/epjc/s10052-017-5499-9

Lv, Q. Z., Dong, S., Li, Y. T., Sheng, Z. M., Su, Q., & Grobe, R. (2018). Role of the spatial inhomogeneity on the laser-induced vacuum decay. Physical Review A, 97(2), 022515. doi:10.1103/PhysRevA.97.022515

Lv, Q. Z., Dong, S., Lisowski, C., Pelphrey, R., Li, Y. T., Su, Q., & Grobe, R. (2018). Quantum-mechanical approach to the laser-assisted vacuum decay. Physical Review A, 97(5), 053416. doi:10.1103/PhysRevA.97.053416

Lv, Q. Z., Su, Q., & Grobe, R. (2018). Manipulation of the Vacuum to Control Its Field-Induced Decay. Physical Review Letters, 121(18), 183606. doi:10.1103/PhysRevLett.121.183606

Mackenroth, F., & Di Piazza, A. (2018). Nonlinear trident pair production in an arbitrary plane wave: A focus on the properties of the transition amplitude. Physical Review D, 98(11), 116002. doi:10.1103/PhysRevD.98.116002

Marcowith, A., Dwarkadas, V. V., Renaud, M., Tatischeff, V., & Giacinti, G. (2018). Core-collapse supernovae as cosmic ray sources. Monthly Notices of the Royal Astronomical Society, 479(4), 4470–4485. doi:10.1093/mnras/sty1743

Marsh, B. A., Goodacre, T. D., Sels, S., Tsunoda, Y., Andel, B., Andreyev, A. N., ... Zuber, K. (2018). Characterization of the shape-staggering effect in mercury nuclei. Nature Physics, 14, 1163–1167. doi:10.1038/s41567-018-0292-8

Mauer, J., Willenberg, B., Daněk, J., Mayer, B. W., Phillips, C. R., Gallmann, L., ... Keller, U. (2018). Probing the ionization wave packet and recollision dynamics with an elliptically polarized strong laser field in the nondipole regime. Physical Review A, 97(1), 013404. doi:10.1103/PhysRevA.97.013404

Max, K., Platscher, M., & Smirnov, J. (2018). Decoherence of Gravitational Wave Oscillations in Bigravity. Physical Review D, 97(06), 064009. doi:10.1103/PhysRevD.97.064009

Micke, P., Kühn, S., Buchauer, L., Harries, J. R., Bücking, T. M., Blaum, K., ... Crespo López-Urrutia, J. R. (2018). The Heidelberg compact electron beam ion traps. Review of Scientific Instruments, 89(5), 063109. doi:10.1063/1.5026961

Miniati, F., Gregori, G., Reville, B., & Sarkar, S. (2018). Axion-Driven Cosmic Magnetogenesis during the QCD Crossover. Physical Review Letters, 121(2), 021301. doi:10.1103/PhysRevLett.121.021301

Mooser, A., Rischka, A., Schneider, A., Blaum, K., Ulmer, S., & Walz, J. (2018). A New Experiment for the Measurement of the g-Factors of ${}^3\text{He}^+$ and ${}^3\text{He}^{2+}$. Journal of Physics: Conference Series, 1138(conference 1), 012004. doi:10.1088/1742-6596/1138/1/012004

Morris, B. M., Tollerud, E., Sipocz, B., Deil, C., Douglas, S. T., Medina, J. B., ... Jeschke, E. (2018). astropolan: An Open Source Observation Planning Package in Python. Astronomical Journal, 155(3), 128.

doi:10.3847/1538-3881/aaa47e

Morris, T. D., Simonis, J., Stroberg, S. R., Stumpf, C., Hagen, G., Holt, J. D., ... Schwenk, A. (2018). Structure of the lightest tin isotopes. *Physical Review Letters*, 120(15), 152503. doi:10.1103/PhysRevLett.120.152503

Mougeot, M., Atanasov, D., Blaum, K., Chrysalidis, K., Day Goodacre, T., Fedorov, D., ... Zuber, K. (2018). Precision Mass Measurements of $^{58-63}\text{Cr}$: Nuclear Collectivity Towards the N=40 Island of Inversion. *Physical Review Letters*, 120(23), 232501. doi:10.1103/PhysRevLett.120.232501

Nayerhoda, A., Greus, F. S., & Casanova, S. (2018). TeV Diffuse Emission From the Inner Galaxy. *Frontiers in Astronomy and Space Science*, 5, UNSP 8. doi:10.3389/fspas.2018.00008

Nickerson, B., Liao, W.-T., & Pálffy, A. (2018). Collective effects in ^{229}Th -doped crystals. *Physical Review A*, 98(6), 062520. doi:10.1103/PhysRevA.98.062520

Nilles, H. P., Ratz, M., Trautner, A., & Vaudrevange, P. K. S. (2018). CP Violation from String Theory. *Physics Letters B*, 786, 283–287. doi:10.1016/j.physletb.2018.09.053

Novotny, O., Buhr , H., Geppert, W., Grieser, M., Hamberg, M., Krantz, C., ... Wolf, A. (2018). Dissociative Recombination Measurements of Chloronium Ions (D_2Cl^+) Using an Ion Storage Ring. *Astrophysical Journal*, 862(2), 166. doi:10.3847/1538-4357/aacefc

Owen, E. R., Jacobsen, I. B., Wu, K., & Surajbali, P. (2018). Interactions between ultra-high-energy particles and protogalactic environments. *Monthly Notices of the Royal Astronomical Society*, 481(1), 666–687. doi:10.1093/mnras/sty2279

Pande, K., Donatelli, J. J., Malmerberg, E., Foucar, L., Poon, B. K., Sutter, M., ... Zwart, P. H. (2018). Data Descriptor: Free-electron laser data for multiple-particle fluctuation scattering analysis. *Scientific Data*, 5, 180201. doi:10.1038/sdata.2018.201

Patoary, A. S. M., & Oreshkina, N. (2018). Finite nuclear size effect to the fine structure of heavy muonic atoms. *European Physical Journal D: Atomic, Molecular, Optical and Plasma Physics*, 72(3), 54. doi:10.1140/epjd/e2018-80545-9

Pérez, E. A. C., Menéndez, J., & Schwenk, A. (2018). Gamow-Teller and double- β decays of heavy nuclei within an effective theory. *Physical Review C*, 98(04), 045501. doi:10.1103/PhysRevC.98.045501

Pierce, A., Shah, N. R., & Vogl, S. (2018). Stop Co-Accretion in the Minimal Supersymmetric Standard Model Revisited. *Physical Review D*, 97(2), 023008. Retrieved from <http://hdl.handle.net/21.11116/0000-0000-B46D-B>

Platscher, M., Smirnov, J., Meyer, S., & Bartelmann, M. (2018). Long Range Effects in Gravity Theories with Vainshtein Screening. *Journal of Cosmology and Astroparticle Physics*, 2018(12), 009. doi:10.1088/1475-7516/2018/12/009

Poder , K., Tamburini, M., Sarri, G., Di Piazza, A., Kuschel, S., Baird, C. D., ... Zepf, M. (2018). Experimental Signatures of the Quantum Nature of Radiation Reaction in the Field of an Ultraintense Laser. *Physical Review X*, 8(3), 031004. doi:10.1103/PhysRevX.8.031004

Price-Whelan, A. M., Sipocz, B. M., Gunther, H. M., Lim, P. L., Crawford, S. M., Conseil, S., ... Zabalza, V. (2018). The Astropy Project: Building an Open-science Project and Status of the v2.0 Core Package. *Astronomical Journal*, 156(3), 123. doi:10.3847/1538-3881/aabc4f

Prince, R., Raman, G., Hahn, J., Gupta, N., & Majumdar, P. (2018). Fermi-Large Area Telescope Observations of the Brightest Gamma-Ray Flare Ever Detected from CTA 102. *Astrophysical Journal*, 866(1), 16. doi:10.3847/1538-4357/aadadb

Profumo , S., Queiroz, F., Silk , J., & Siqueira, C. (2018). Searching for secluded dark matter with HESS, Fermi-LAT, and Planck. *Journal of Cosmology and Astroparticle Physics*, 2018(3), 010. doi:10.1088/1475-7516/2018/03/010

Pürckhauer, S., Hermann, G., & Werner , F. (2018). Evaluation of light concentrators for cameras of the medium-sized telescopes of the Cherenkov Telescope Array. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 912, 97–100. doi:10.1016/j.nima.2017.10.064

Queiroz, F., Valle, J. W. F., Mambrini, Y., & Arcadi, G. (2018). New Physics Landmarks: Dark Matter and Neutrino Masses. *Advances in High Energy Physics*, 2018, 2652536. doi:10.1155/2018/2652536

Ramien, G. N., Gunst, J., Kong, X., & Pálffy, A. (2018). X-ray-frequency modulation via periodic switching of an external magnetic field. *Physical Review A*, 97(6), 063858. doi:10.1103/PhysRevA.97.063858

Reiter, M. P., Andrés, S. A. S., Dunling, E., Koote, B., Leistenschneider, E., Andreoiu, C., ... Dilling, J. (2018). Quenching of the $N = 32$ neutron shell closure studied via precision mass measurements of neutron-rich vanadium isotopes. *Physical Review C*, 98(2), 024310. doi:10.1103/PhysRevC.98.024310

Ren, X., Wang, E., Skitnevskaya, A. D., Trofimov , A. B., Gokhberg , K., & Dorn, A. (2018). Experimental evidence for ultrafast intermolecular relaxation processes in hydrated biomolecules. *Nature Physics*, 14(10), 1062–1066. doi:10.1038/s41567-018-0214-9

Rigby, A., Cruz, F., Albertazzi, B., Bamford, R., Bell, A.-R., Cross, J.-E., ... Gregori, G. (2018). Electron acceleration by wave turbulence in a magnetized plasma. *Nature Physics*, 14(5), 475–479. doi:10.1038/s41567-018-0059-2

Romoli , C., Chakraborty, N., Dorner, D., Taylor, A. M., & Blank, M. (2018). Flux Distribution of Gamma-Ray Emission in Blazars: The Example of Mrk 501. *Galaxies*, 6(4), 135. doi:10.3390/galaxies6040135

Rudek, B., Toyota, K., Foucar, L., Erk, B., Boll, R., Bomme, C., ... Rolles, D. (2018). Relativistic and resonant effects in the ionization of heavy atoms by ultra-intense hard X-rays. *Communications Physics*, 9, 4200. doi:10.1038/s41467-018-06745-6

Rupp, N. (2018). Radon background in liquid xenon detectors. *Journal of Instrumentation*, 13, C02001. doi:10.1088/1748-0221/13/02/C02001

Salamin, Y. (2018). Fields of a Bessel-Bessel light bullet of arbitrary order in an under-dense plasma. *Scientific Reports*, 8, 11362. doi:10.1038/s41598-018-29694-y

Sampath, A., & Tamburini, M. (2018). Towards realistic simulations of QED cascades: Non-ideal laser and electron seeding effects . *Physics of Plasmas*, 25(8), 083104. doi:10.1063/1.5022640

Schmidt, S., Billowes, J., Bissell, M. L., Blaum, K., Garcia Ruiz, R. F., Heylen, H., ... Yang, X. F. (2018). The nuclear magnetic moment of ^{208}Bi and its relevance for a test of bound-state strong-field QED. *Physics Letters B*, 779, 324–330. doi:10.1016/j.physletb.2018.02.024

Shaaran, T., Hatsagortsyan, K. Z., & Keitel, C. H. (2018). Coulomb effect in laser-induced recollision excitation. *Physical Review A*, 98(2), 023410 . doi:10.1103/PhysRevA.98.023410

Shah, C., Amaro , P., Steinbrügge, R. F., Bennett, S., Crespo López-Urrutia, J. R., & Tashenov, S. (2018). Polarization of K-shell Dielectronic Recombination Satellite Lines of Fe xix–xxv and Its Application for Diagnostics of Anisotropies of Hot Plasmas. *The Astrophysical Journal Supplement Series*, 234(2), 1–25. doi:10.3847/1538-4365/aaa4c0

Sharma, S., Acharya, B. P., De Silva, A. H. N. C., Parris, N. W., Ramsey, B. J., Romans, K. L., ... Fischer, D. (2018). All-optical atom trap as a target for MOTRIMS-like collision experiments. *Physical Review A*, 97(4), 043427. doi:10.1103/PhysRevA.97.043427

Sikora, B., Cakir, H., Michel, N., Debierre, V., Oreshkina, N., Belov, N., ... Harman, Z. (2018). Improving the accuracy of the muon mass and magnetic moment anomaly via the bound-muon g factor. *Physical Review D*, 97(11), 111301(R). doi:10.1103/PhysRevD.97.111301

Singh, K. P., Kenfack, A., Rost, J. M., & Pfeifer, T. (2018). Control of molecular breakup by an infrared pulse and a femtosecond pulse train. *Physical Review A*, 97(3), 033406. doi:10.1103/PhysRevA.97.033406

Sitarek, J., Sobczynska, D., Adamczyk, K., Szanecki, M., & Bernlöhr, K. (2018). Estimation of the height of the first interaction in gamma-ray showers observed by Cherenkov telescopes. *Astroparticle Physics*, 103, 108–114. doi:10.1016/j.astropartphys.2018.07.008

Smirnov, A., & Xu, X. (2018). Neutrino mixing in SO(10) GUTs with a non-Abelian flavor symmetry in the hidden sector. *Physical Review D*, 97(9), 095030. doi:10.1103/PhysRevD.97.095030

Smorra, C., Blessing, P. E., Borchert, M. J., Devlin, J. A., Harrington, J., Higuchi, T., ... Ulmer, S. (2018). 350-fold improved measurement of the antiproton magnetic moment using a multi-trap method. *Hyperfine Interactions*, 239, 47. doi:10.1007/s10751-018-1507-1

Stoof, V., Cavaletto, S., Donsa, S., Blättermann, A., Birk, P., Keitel, C. H., ... Pfeifer, T. (2018). Real-Time Reconstruction of the Strong-Field-Driven Dipole Response. *Physical Review Letters*, 121(17), 173005. doi:10.1103/PhysRevLett.121.173005

Sun, X., Yang, R., Rieger, F. M., Liu, R., & Aharonian, F. (2018). Energy distribution of relativistic electrons in the kiloparsec scale jet of M 87 with Chandra. *Astronomy and Astrophysics Review*, 612, A106. doi:10.1051/0004-6361/201731716

Takahashi, T., Kokubun, M., Mitsuda, K., Kelley, R. L., Ohashi, T., Aharonian, F., ... Zoghbi, A. (2018). Hitomi (ASTRO-H) X-ray Astronomy Satellite. *Journal of Astronomical Telescopes Instruments and Systems*, 4(2), 021402. doi:10.1117/1.JATIS.4.2.021402

Tanaka, T., Yamaguchi, H., Wik, D. R., Aharonian, F. A., Bamba, A., Castro, D., ... Williams, B. J. (2018). NuSTAR Detection of Nonthermal Bremsstrahlung from the Supernova Remnant W49B. *Astrophysical Journal, Letters*, 866(2), L26. doi:10.3847/2041-8213/aae709

Tews, I., Huth, L., & Schwenk, A. (2018). Large-cutoff behavior of local chiral effective field theory interactions. *Physical Review C*, 98(02), 024401. doi:10.1103/PhysRevC.98.024401

Tibaldo, L., Zanin, R., Fagioli , G., Ballet, J., Grondin, M.-H., Hinton, J. A., & Lemoine, M. (2018). Disentangling multiple high-energy emission components in the Vela X pulsar wind nebula with the Fermi Large Area Telescope. *Astronomy and Astrophysics*, 617, A78. doi:10.1051/0004-6361/201833356

Tu, X. L., Chen, X.-C., Zhang, J.-T., Shuai, P., Yue, K., Xu, X., ... Xu, H.-S. (2018). First application of combined isochronous and Schottky mass spectrometry: Half-lives of fully-ionized $^{49}\text{Cr}^{24+}$ and $^{53}\text{Fe}^{26+}$ atoms. *Physical Review C*, 97(01), 014321. doi:10.1103/PhysRevC.97.014321

Tzeferacos, P., Rigby, A., Bott, A. . F.-A., Bell, A. ~R., Bingham, R., Casner, A., ... Gregori, G. (2018). Laboratory evidence of dynamo amplification of magnetic fields in a turbulent plasma. *Communications Physics*, 9, 591. doi:10.1038/s41467-018-02953-2

Wang, E., Gong, M., Shen, Z., Shan, X., Ren, X., Dorn, A., & Chen, X. (2018). Fragmentation dynamics of CS₂ in collisions with 1.0 keV electrons. *The Journal of Chemical Physics*, 149(20), 204301. doi:10.1063/1.5059347

Wang, G.-Y., & Liao, W.-T. (2018). Generation of Short Hard-X-Ray Pulses of Tailored Duration Using a Mössbauer Source. *Physical Review Applied*, 10(1), 014003. doi:10.1103/PhysRevApplied.10.014003

Wang, J.-S., Liu, R.-Y., Aharonian, F., & Dai, Z.-G. (2018). Analytical treatment for the development of electromagnetic cascades in intense magnetic fields. *Physical Review D*, 97(10), 103016. doi:10.1103/PhysRevD.97.103016

Wang, K., Liu, R.-Y., Dai, Z.-G., & Asano, K. (2018). Hadronic Origin of Prompt High-energy Emission of Gamma-ray Bursts Revisited: In the Case of a Limited Maximum Proton Energy. *Astrophysical Journal*, 857(1), 24. doi:10.3847/1538-4357/aab667

Wang, L., Norberg, P., Brough, S., Brown I, M. J., da Cunha, E., Davies, L. J., ... Wright, A. H. (2018). Galaxy and Mass Assembly (GAMA): The environmental dependence of the galaxy main sequence. *Astronomy and Astrophysics*, 618, A1. doi:10.1051/0004-6361/201832697

Wang, X., Xu, S., Ning, C., Al-Hagan, O., Hu, P., Zhao, Y., ... Madison, D. (2018). Dynamic effects in electron momentum spectroscopy of sulfur hexafluoride. *Physical Review A*, 97(6), 062704. doi:10.1103/PhysRevA.97.062704

Werth, G., Sturm, S., & Blaum, K. (2018). Zeeman Spectroscopy in Penning Traps. *Advances in Atomic, Molecular, and Optical Physics*, 67, 257–296. doi:10.1016/bs.aamop.2018.02.004

Wistisen, T. N., & Di Piazza, A. (2018). Impact of the quantized transverse motion on radiation emission in a Dirac harmonic oscillator. *Physical Review A*, 98(2), 022131. doi:10.1103/PhysRevA.98.022131

Wistisen, T. N., Di Piazza, A., Knudsen, H. V., & Uggerhøj, U. I. (2018). Experimental evidence of quantum radiation reaction in aligned crystals. *Nature Communications*, 9, 795. doi:10.1038/s41467-018-03165-4

Wu, Y., Gunst, J., Keitel, C. H., & Pálffy, A. (2018). Tailoring Laser-Generated Plasmas for Efficient Nuclear Excitation by Electron Capture. *Physical Review Letters*, 120(5), 052504. doi:10.1103/PhysRevLett.120.052504

XENON Collaboration, Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Althueser, L., ... Zhu, T. (2018). Dark Matter Search Results from a One Ton-Year Exposure of XENON1T. *Physical Review Letters*, 121(11), 111302. doi:10.1103/PhysRevLett.121.111302

XENON Collaboration, Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., ... Zhang, Y. (2018). Intrinsic backgrounds from Rn and Kr in the XENON100 experiment. *European Physical Journal C*, 78, 132. doi:10.1140/epjc/s10052-018-5565-y

XENON Collaboration, Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Amaro, F. D., ... Zhang, Y. (2018). Signal Yields of keV Electronic Recoils and Their Discrimination from Nuclear Recoils in Liquid Xenon. *Physical Review D*, 97(09), 092007. doi:10.1103/PhysRevD.97.092007

Xi, S.-Q., Wang, X.-Y., Liang, Y.-F., Peng, F.-K., Yang, R.-Z., & Liu, R. (2018). Detection of gamma-ray emission from the Coma cluster with Fermi Large Area Telescope and tentative evidence for an extended spatial structure. *Physical Review D*, 98(6), 063006. doi:10.1103/PhysRevD.98.063006

Xing, Y. M., Li, K. A., Zhang, Y. H., Zhou, X. H., Wang, M., Litvinov, Y. A., ... Xu, F. R. (2018). Mass measurements of neutron-deficient Y, Zr, and Nb isotopes and their impact on rp and vp nucleosynthesis processes. *Physics Letters B*, 781, 358–363. doi:10.1016/j.physletb.2018.04.009

Xu, S., Guo, D., Ma, X., Zhu, X., Feng, W., Yan, S., ... Kryzhevci V. N. (2018). Damaging Intermolecular Energy and Proton Transfer Processes in Alpha-Particle-Irradiated Hydrogen-Bonded Systems. *Angewandte Chemie International Edition in English*, 57(52), 17023–17027. doi:10.1002/anie.201808898

Xu, Z. Y., Heylen, H., Asahi, K., Boulay, F., Daugas, J. M., de Groote, R. P., ... Yang, X. F. (2018). Nuclear moments of the low-lying isomeric 1(+) state of Al-34: Investigation on the neutron 1p1h excitation across N=20 in the island of inversion. *Physics Letters B*, 782, 619–626. doi:10.1016/j.physletb.2018.06.009

Yang, H., Gong, M., Dong, W., Shen, Z., Wang, E., & Chen, X. (2018). Two-body fragmentation of OCS3+: an ab initio molecular dynamics simulation study. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 51(24), 245201. doi:10.1088/1361-6455/aaecfe

Yang, H., Wang, E., Dong, W., Gong, M., Shen, Z., Tang, Y., ... Chen, X. (2018). Ultrafast fragmentation dynamics of triply charged carbon dioxide: Vibrational-mode-dependent molecular bond breakage. *Physical Review A*, 97(5), 052703. doi:10.1103/PhysRevA.97.052703

Yang, R., de Ona Wilhelmi, E., & Aharonian, F. (2018). Diffuse gamma-ray emission in the vicinity of young star cluster Westerlund 2. *Astronomy and Astrophysics*, 611, A77. doi:10.1051/0004-6361/201732045

Yang, R., Kafexhiu, E., & Aharonian, F. (2018). Exploring the shape of the gamma-ray spectrum around the “ $\pi(0)$ -bump.” *Astronomy and Astrophysics*, 615, A108. doi:10.1051/0004-6361/201730908

Yang, X. F., Tsunoda, Y., Babcock, C., Billowes, J., Bissell, M. L., Blaum, K., ... Yordanov, D. T. (2018). Investigating the large deformation of the $5/2^+$ isomeric state in ^{73}Zn : An indicator for triaxiality. *Physical Review C*, 97(4), 044324. doi:10.1103/PhysRevC.97.044324

Yordanov, D. T., Balabanski, D. L., Bissell, M. L., Blaum, K., Blazhev, A., Budinčević, I., ... Nörterhäuser, W. (2018). Spins and electromagnetic moments of $^{101-109}\text{Cd}$. *Physical Review C*, 98(1), 011303. doi:10.1103/PhysRevC.98.011303

Zhang, Y. H., Zhang, P., Zhou, X. H., Wang, M., Litvinov, Y. A., Xu, H. S., ... Xu, F. R. (2018). Isochronous mass measurements of $T_z = -1$ f p-shell nuclei from projectile fragmentation of ^{58}Ni . *Physical Review C*, 98(1), 014319. doi:10.1103/PhysRevC.98.014319

Zorn, J., White, R., Watson, J. J., Armstrong, T. P., Balzer, A., Barcelo, M., ... Zink, A. (2018). Characterisation and testing of CHEC-M-A camera prototype for the small-sized telescopes of the Cherenkov telescope array. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 904, 44–63. doi:10.1016/j.nima.2018.06.078

Conference Papers 2018

Agostini, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., Bauer, C., ... Zuzel, G. (2018). Searching Neutrinoless Double Beta Decay with Gerda Phase II. In International Journal of Modern Physics Conference Series (Vol. 46). Beijing, PEOPLES R CHINA. doi:10.1142/S2010194518600406

Camus, N., Yakaboylu, E., Fechner, L., Klaiber, M., Laux, M., Mi, Y., ... Moshammer, R. (2018). Experimental Evidence for Wigner's Tunneling Time. In Journal of Physics Conference Series (Vol. 999). Kazan E K Zavoisky Phys Tech Inst, Kazan, RUSSIA. doi:10.1088/1742-6596/999/1/012004

Harman, Z., Sikora, B., Yerokhin, V. A., Cakir, H., Debierre, V., Michel, N., ... Keitel, C. H. (2018). The g factor of highly charged ions. In Journal of Physics: Conference Series (Vol. 1138). Bristol: IOP Publishing. doi:10.1088/1742-6596/1138/1/012002

Le Blanc, O., Fasola, G., Huet, J. M., White, R., Dmytriiev, A., Sol, H., ... Zorn, J. (2018). Final characterisation and design of the Gamma-ray Cherenkov Telescope (GCT) for the Cherenkov Telescope Array. In Ground-based and Airborne Telescopes VII. Austin, TX. doi:10.1117/12.2313158

Minkov, N., & Pálffy, A. (2018). Electromagnetic Properties of the ^{229m}Th Isomer. In Nuclear Theory (Vol. 37, pp. 33–39). Rila Mountains, Bulgaria.

Oya, I., Fuessling , M., Hinton, J. A., Mitchell, A., Tosti , G., & Dazzi , F. (2018). Deriving generic telescope use cases for the Cherenkov Telescope Array (Vol. 10705). Presented at the Conference on Modeling, Systems Engineering, and Project Management for Astronomy VIII, Austin, TX.

Smirnov, A. Y. (2018). Solar Neutrinos and Matter Effects. In The State of the Art of Neutrino Physics ; A Tutorial for Graduate Students and Young Researchers (pp. 149–209)

Books and Book Chapters 2018

Lindner, M., Platscher, M., & Queiroz, F. (2018). A Call for New Physics : The Muon Anomalous Magnetic Moment and Lepton Flavor Violation. Physics Reports: Review Section of Physics Letters (Vol. 731). Amsterdam: North-Holland. doi:10.1016/j.physrep.2017.12.001

Publications 2019

Journals Articles

Abada, A., Abbrescia, M., AbdusSalam, S. S., Abdyukhanov, I., Fernandez, J. A., Abramov, A., ... Zurita, J. (2019). FCC Physics Opportunities: Future Circular Collider Conceptual Design Report Volume 1. European Physical Journal C, 79(6), 474. doi:10.1140/epjc/s10052-019-6904-3

Abada, A., Arcadi, G., Domcke, V., Drewes, M., Klaric, J., & Luente, M. (2019). Low-scale leptogenesis with three heavy neutrinos. Journal of High Energy Physics : JHEP, 2019(01), 164. doi:10.1007/JHEP01(2019)164

Abdalla, H., Adam, R., Aharonian, F., Ait Benkhali, F., Angüner, E. O., Arakawa, M., ... Roberts, O. J. (2019). Resolving the Crab pulsar wind nebula at teraelectronvolt energies. Nature Astronomy, 3. doi:10.1038/s41550-019-0910-0

Abdalla, H., Adam, R., Aharonian, F., Ait Benkhali, F., Angüner, E. O., Arakawa, M., ... Roberts, O. J. (2019). A very-high-energy component deep in the γ -ray burst afterglow. Nature, 575, 464–467. doi:10.1038/s41586-019-1743-9

Abdalla, H., Aharonian, F., Ait Benkhali, F., Anguener, E. O., Arakawa, M., Arcaro, C., ... Maxted I, N. (2019). Upper limits on very-high-energy gamma-ray emission from core-collapse supernovae observed with HESS. Astronomy and Astrophysics, 626, A57. doi:10.1051/0004-6361/201935242

Abdalla, H., Aharonian, F., Ait Benkhali, F., Anguner, E. O., Arakawa, M., Arcaro, C., ... Zywucka, N. (2019). HESS observations of the flaring gravitationally lensed galaxy PKS 1830-211. Monthly Notices of the Royal Astronomical Society, 486(3), 3886–3891. doi:10.1093/mnras/stz1031

Abdalla, H., Aharonian, F., Ait Benkhali, F., Anguner, E. O., Arakawa, M., Arcaro, C., ... Zywucka, N. (2019). HESS and Suzaku observations of the Vela X pulsar wind nebula. Astronomy and Astrophysics, 627, A100. doi:10.1051/0004-6361/201935458

Abeysekara, A. U., Alfaro, R., Alvarez, C., Arceo, R., Arteaga-Velazquez, J. C., Avila Rojas, D., ... Yuan, T. (2019). All-sky Measurement of the Anisotropy of Cosmic Rays at 10 TeV and Mapping of the Local Interstellar Magnetic Field. Astrophysical Journal, 871(1), 96. doi:10.3847/1538-4357/aaf5cc

Ablikim, U., Bomme, C., Osipov, T., Xiong, H., Obaid, R., Bilodeau, R. C., ... Rolles, D. (2019). A coincidence velocity map imaging spectrometer for ions and high-energy electrons to study inner-shell photo ionization of gas-phase molecules. Review of Scientific Instruments, 90(5), 055103. doi:10.1063/1.5093420

Acharyya, A., Agudo, I., Angüner, E. O., Alfaro, R., Alfaro, J., Alispach, C., ... Zorn, J. (2019). Monte Carlo studies for the optimisation of the Cherenkov Telescope Array layout. Astroparticle Physics, 111, 35–53. doi:10.1016/j.astropartphys.2019.04.001

Aharonian, F., Yang, R., & Wilhelmi, E. de O. (2019). Massive stars as major factories of Galactic cosmic rays. Nature Astronomy, 3(6), 561–567. doi:10.1038/s41550-019-0724-0

Ahnen, M. L., Ansoldi, S., Antonelli, L. A., Arcaro, C., Baack, D., Babic, A., ... Yassine, M. (2019). MAGIC and Fermi-LAT gamma-ray results on unassociated HAWC sources. Monthly Notices of the Royal Astronomical Society, 485(1), 356–366. doi:10.1093/mnras/stz089

Ait Benkhali, F., Chakraborty, N., & Rieger, F. M. (2019). Complex gamma-ray behavior of the radio galaxy

Alanne, T., Blasi, S., & Dondi, N. A. (2019). Critical Look at β -Function Singularities at Large N. *Physical Review Letters*, 123(13), 131602. doi:10.1103/PhysRevLett.123.131602

Alanne, T., Blasi, S., & Dondi, N. A. (2019). Bubble-resummation and critical-point methods for β -functions at large N. *The European Physical Journal C: Particles and Fields*, 79(8), 689. doi:10.1140/epjc/s10052-019-7190-9

Alanne, T., Blasi, S., & Goertz, F. (2019). Common source for scalars: Flavored axion-Higgs unification. *Physical Review D*, 99(01), 015028. doi:10.1103/PhysRevD.99.015028

Alanne, T., Heikinheimo, M., Keus, V., Koivunen, N., & Tuominen, K. (2019). Direct and indirect probes of Goldstone dark matter. *Physical Review D*, 99(7), 075028. doi:10.1103/PhysRevD.99.075028

Alanne, T., Hugle, T., Platscher, M., & Schmitz, K. (2019). Low-scale leptogenesis assisted by a real scalar singlet. *Journal of Cosmology and Astroparticle Physics*, 2019(03), 037. doi:10.1088/1475-7516/2019/03/037

Almazán, H., Bernard, L., Blanchet, A., Bonhomme, A., Buck, C., Chebboubi, A., ... Vialat, M. (2019). Improved STEREO simulation with a new gamma ray spectrum of excited gadolinium isotopes using FIFRELIN. *European Physical Journal A*, 55, 183. doi:10.1140/epja/i2019-12886-y

Altenmüller, K., Arenz, M., Baek, W.-J., Beck, M., Beglarian, A., Behrens, J., ... Zeller, G. (2019). Muon-induced background in the KATRIN main spectrometer. *Astroparticle Physics*, 108, 40–49. doi:10.1016/j.astropartphys.2019.01.003

Altenmüller, K., Arenz, M., Baek, W.-J., Beck, M., Beglarian, A., Behrens, J., ... Zeller, G. (2019). Gamma-induced background in the KATRIN main spectrometer. *European Physical Journal C*, 79, 807. doi:10.1140/epjc/s10052-019-7320-4

Ambrogi , L., Zanin, R., Casanova, S., De Ona Wilhelmi, E., Peron, G., & Aharonian, F. (2019). Spectral and morphological study of the gamma radiation of the middle-aged supernova remnant HB 21. *Astronomy and Astrophysics*, 623, A86. doi:10.1051/0004-6361/201833985

Amini, K., Sclafani, M., Steinle, T., Le, A.-T., Sanchez, A., Müller, C., ... Biegert, J. (2019). Imaging the Renner-Teller effect using laser-induced electron diffraction. *Proceedings of the National Academy of Sciences of the United States of America*, 116(17), 8173–8177. doi:10.1073/pnas.1817465116

Amsler, C., Antonello, M., Belov, A., Bonomi, G., Brusa, R. S., Caccia, M., ... Zurlo, N. (2019). A similar to $\sim 100 \mu\text{m}$ -resolution position-sensitive detector for slow positronium. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 457, 44–48. doi:10.1016/j.nimb.2019.07.015

Amsler, C., Antonello, M., Belov, A., Bonomi, G., Brusa, R. S., Caccia, M., ... Zurlo, N. (2019). Velocity-selected production of ^{23}S metastable positronium. *Physical Review A*, 99(3), 033405. doi:10.1103/PhysRevA.99.033405

Angioi, A., & Di Piazza, A. (2019). On quantum electrodynamic processes in plasmas interacting with strong lasers. *Rendiconti Lincei* , 30(1), 17–23. doi:10.1007/s12210-019-00774-z

Aprile, E., Aalbers, J., Agostini, F., Alfonsi, M., Althueser, L., Amaro, F. D., ... Schwenk, A. (2019). First results on the scalar WIMP-pion coupling, using the XENON1T experiment. *Physical Review Letters*,

122(7), 071301. doi:10.1103/PhysRevLett.122.071301

Arapoglou, I., Egl, A., Höcker, M., Sailer, T., Tu, B., Weigel, A., ... Blaum, K. (2019). g Factor of Boronlike Argon $^{40}\text{Ar}^{13+}$. *Physical Review Letters*, 122(25), 253001. doi:10.1103/PhysRevLett.122.253001

Araya , M., Mitchell, A. M. W., & Parsons, R. D. (2019). Revealing a new region of gamma-ray emission in the vicinity of HESS J1825-137. *Monthly Notices of the Royal Astronomical Society*, 485(1), 1001–1007. doi:10.1093/mnras/stz462

Arcadi, G., Heeck, J., Heizmann, F., Mertens, S., Queiroz, F. S., Rodejohann, W., ... Valerius, K. (2019). Tritium beta decay with additional emission of new light bosons. *Journal of High Energy Physics : JHEP*, 2019(01), 206. doi:10.1007/JHEP01(2019)206

Arcadi, G., Lebedev, O., Pokorski, S., & Toma, T. (2019). Real Scalar Dark Matter: Relativistic Treatment. *Journal of High Energy Physics : JHEP*, 2019(08), 050. doi:10.1007/JHEP08(2019)050

Ascher, P., Althubiti, N., Atanasov, D., Blaum, K., Cakirli, R. B., Grévy, S., ... Zuber, K. (2019). Mass measurements of neutron-rich isotopes near $N = 20$ by in-trap decay with the ISOLTRAP spectrometer. *Physical Review C*, 100(1), 014304. doi:10.1103/PhysRevC.100.014304

Aumayr, F., Ueda, K., Sokell, E., Schippers, S., Sadeghpour, H., Merkt, F., ... Stoehlker, T. (2019). Roadmap on photonic, electronic and atomic collision physics: III. Heavy particles: with zero to relativistic speeds. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 52(17), 171003. doi:10.1088/1361-6455/ab26ea

Barzakh, A. E., Cubiss, J. G., Andreyev, A. N., Seliverstov, M. D., Andel, B., Antalic, S., ... Zuber, K. (2019). Inverse odd-even staggering in nuclear charge radii and possible octupole collectivity in $^{217,218,219}\text{At}$ revealed by in-source laser spectroscopy. *Physical Review C*, 99, 054317. doi:10.1103/PhysRevC.99.054317

Baur, A., Nilles, H. P., Trautner, A., & Vaudrevange, P. K. S. (2019). A string theory of flavor and CP. *Nuclear Physics B*, 947, UNSP 114737. doi:10.1016/j.nuclphysb.2019.114737

Bekker, H., Borschevsky , A., Harman, Z., Keitel, C. H., Pfeifer, T., Schmidt , P. O., ... Berengut, J. C. (2019). Detection of the 5p-4f orbital crossing and its optical clock transition in Pr^{9+} . *Nature Communications*, 10, 5651. doi:10.1038/s41467-019-13406-9

Bell, N. F., Busoni, G., & Robles, S. (2019). Capture of leptophilic dark matter in neutron stars. *Journal of Cosmology and Astroparticle Physics*, 2019(6), 054. doi:10.1088/1475-7516/2019/06/054

Ben Ltaief, L., Shcherbinin, M., Mandal, S., Krishnan, S. R., LaForge, A. C., Richter, R., ... Mudrich, M. (2019). Charge Exchange Dominates Long-Range Interatomic Coulombic Decay of Excited Metal-Doped Helium Nanodroplets. *The Journal of Physical Chemistry Letters*, 10(21), 6904–6909. doi:10.1021/acs.jpclett.9b02726

Bergmann, K., Nägerl, H.-C., Panda, C., Gabrielse, G., Miloglyadov, E., Quack, M., ... Keitel, C. H. (2019). Roadmap on STIRAP applications. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 52, 202001. Retrieved from <http://hdl.handle.net/21.11116/0000-0004-F1B3-1>

Berrah, N., Sanchez-Gonzalez, A., Jurek, Z., Obaid, R., Xiong, H., Squibb, R. J., ... Santra, R. (2019). Femtosecond-resolved observation of the fragmentation of buckminsterfullerene following X-ray multiphoton ionization. *Nature Physics*, 15, 1279–1283. doi:10.1038/s41567-019-0665-7

Berryman, J. M., Brdar, V., & Huber, P. (2019). Particle physics origin of the 5 MeV bump in the reactor

- antineutrino spectrum? *Physical Review D*, 99(5), 055045. doi:10.1103/PhysRevD.99.055045
- Bhadoria, S., & Kumar, N. (2019). Collisionless shock acceleration of quasimonoenergetic ions in ultrarelativistic regime. *Physical Review E*, 99(4), 043205. doi:10.1103/PhysRevE.99.043205
- Biondini, S., & Vogl, S. (2019). Coloured coannihilations: dark matter phenomenology meets non-relativistic EFTs. *Journal of High Energy Physics : JHEP*, 2019(02), 016. doi:10.1007/JHEP02(2019)016
- Bischer, I., Grandou, T., & Hofmann, R. (2019). Perturbative Peculiarities of Quantum Field Theories at High Temperatures. *Universe*, 5(3), 81. doi:10.3390/universe5030081
- Bischer, I., Grandou, T., & Hofmann, R. (2019). On Quantum Fields at High Temperature. *Universe*, 5(1), 26. doi:10.3390/universe5010026
- Bischer, I., & Rodejohann, W. (2019). General neutrino interactions at the DUNE near detector. *Physical Review D*, 99(3), 036006. doi:10.1103/PhysRevD.99.036006
- Bischer, I., & Rodejohann, W. (2019). General neutrino interactions from an effective field theory perspective. *Nuclear Physics B*, 947, UNSP 114746. doi:10.1016/j.nuclphysb.2019.114746
- Blasi, S., & Goertz, F. (2019). Softened Symmetry Breaking in Composite Higgs Models. *Physical Review Letters*, 123(22), 221801. doi:10.1103/PhysRevLett.123.221801
- Blaum, K., & Bock, M. (2019). Aus Hahnium wurde Dubnium. *Physik in Unserer Zeit*, 50(4), 204–204. doi:10.1002/piuz.201970413
- Blaum, K., Budker, D., Surzhykov, A., & Ullrich, J. (2019). The Revised SI: Fundamental Constants, Basic Physics and Units. *Annalen Der Physik*, 531(5), 1900148. doi:10.1002/andp.201900148
- Bolognesi, P., Carravetta, V., Sementa, L., Barcaro, G., Monti, S., Mishra, P. M., ... Avaldi, L. (2019). Core Shell Investigation of 2-nitroimidazole. *Frontiers in Chemistry*, 7, 151. doi:10.3389/fchem.2019.00151
- Borchert, M. J., Blessing, P. E., Devlin, J. A., Harrington, J., Higuchi, T., Morgner, J., ... Ulmer, S. (2019). Measurement of Ultralow Heating Rates of a Single Antiproton in a Cryogenic Penning Trap. *Physical Review Letters*, 122(04), 043201. doi:10.1103/PhysRevLett.122.043201
- Böser, S., Buck, C., Giunti, C., Lesgourgues, J., Ludhova, L., Mertens, S., ... Wurm, M. (2019). Status of Light Sterile Neutrino Searches. *Progress in Particle and Nuclear Physics*, in press. doi:10.1016/j.ppnp.2019.103736
- Brdar, V., Emonds, Y., Helmboldt, A., & Lindner, M. (2019). Conformal realization of the neutrino option. *Physical Review D*, 99(5), 055014. doi:10.1103/PhysRevD.99.055014
- Brdar, V., & Hansen, R. S. L. (2019). IceCube flavor ratios with identified astrophysical sources: towards improving new physics testability. *Journal of Cosmology and Astroparticle Physics*, 2019(2), 023. doi:10.1088/1475-7516/2019/02/023
- Brdar, V., Helmboldt, A., Iwamoto, S., & Schmitz, K. (2019). Type I seesaw mechanism as the common origin of neutrino mass, baryon asymmetry, and the electroweak scale. *Physical Review D*, 100(7), 075029. doi:10.1103/PhysRevD.100.075029
- Brdar, V., Helmboldt, A., & Kubo , J. (2019). Gravitational waves from first-order phase transitions: LIGO as a window to unexplored seesaw scales. *Journal of Cosmology and Astroparticle Physics*, 2019(2), 021.

doi:10.1088/1475-7516/2019/02/021

Brdar, V., & Smirnov, A. (2019). Low Scale Left-Right Symmetry and Naturally Small Neutrino Mass. *Journal of High Energy Physics : JHEP*, 2019(02), 045. doi:10.1007/JHEP02(2019)045

Buck, C., Gramlich , B., Lindner, M., Roca Catala, C., & Schoppmann, S. (2019). Production and Properties of the Liquid Scintillators used in the Stereo Reactor Neutrino Experiment. *Journal of Instrumentation*, 14, P01027. doi:10.1088/1748-0221/14/01/P01027

Buck, C., Gramlich , B., & Schoppmann, S. (2019). Novel Opaque Scintillator for Neutrino Detection. *Journal of Instrumentation*, 14, P11007. doi:10.1088/1748-0221/14/11/P11007

Bykov, D. S., Mestres, P., Dania, L., Schmoeger, L., & Northup, T. E. (2019). Direct loading of nanoparticles under high vacuum into a Paul trap for levitodynamical experiments. *Applied Physics Letters*, 115(3), 034101. doi:10.1063/1.5109645

Camargo, D. A., Campos, M., de Melo, T. B., & Queiroz, F. S. (2019). A two Higgs doublet model for dark matter and neutrino masses. *Physics Letters B*, 795, 319–326. doi:10.1016/j.physletb.2019.06.020

Camper, A., Aghion, S., Amsler, C., Antonello, M., Belov, A., Bonomi, G., ... Zurlo, N. (2019). Imaging a positronium cloud in a 1 Tesla. *EPJ Web of Conferences*, 198, 00004. doi:10.1051/epjconf/201919800004

Caravita, R., Aghion, S., Amsler, C., Antonello, M., Belov, A., Bonomi, G., ... Zurlo, N. (2019). The AEgIS experiment at CERN: Probing antimatter gravity. *Nuovo Cimento C - Colloquia and Communications in Physics*, 42(2-3), 123. doi:10.1393/ncc/i2019-19123-9

Carbone, A., & Schwenk, A. (2019). Ab initio constraints on thermal effects of the nuclear equation of state. *Physical Review C*, 100(2), 025805. doi:10.1103/PhysRevC.100.025805

Carcamo Hernandez, A. E., Marchant Gonzalez, J., & Saldana Salazar, U. J. (2019). Viable low-scale model with universal and inverse seesaw mechanisms. *Physical Review D*, 100(3), 035024. doi:10.1103/PhysRevD.100.035024

Carpeggiani, P., Reduzzi, M., Comby, A., Ahmadi, H., Kühn, S., Calegari, F., ... Sansone , G. (2019). Erratum: Corrigendum: Vectorial optical field reconstruction by attosecond spatial interferometry. *Nature Photonics*, 11, 527. doi:10.1038/nphoton.2017.123

Castrignano, S., & Evers, J. (2019). Probing Quantum Dynamical Couple Correlations with Time-Domain Interferometry. *Physical Review Letters*, 122(2), 025301. doi:10.1103/PhysRevLett.122.025301

Celli, S., Morlino, G., Gabici, S., & Aharonian, F. A. (2019). Supernova remnants in clumpy media: particle propagation and gamma-ray emission. *Monthly Notices of the Royal Astronomical Society*, 487(3), 3199–3213. doi:10.1093/mnras/stz1425

Cerchiari, G., Erlewein, S., Yzombard, P., Zimmermann, M., & Kellerbauer, A. (2019). Capture of an external anion beam into a linear Paul trap. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 52(15), 155003. doi:10.1088/1361-6455/ab0089

Cerchiari, G., Yzombard, P., & Kellerbauer, A. (2019). Laser-Assisted Evaporative Cooling of Anions. *Physical Review Letters*, 123(10), 103201. doi:10.1103/PhysRevLett.123.103201

Chen, N., Du, C., Wu, Y., & Xu, X. (2019). Further study of the global minimum constraint on the two-Higgs-doublet models: LHC searches for heavy Higgs bosons. *Physical Review D*, 99(3), 035011.

doi:10.1103/PhysRevD.99.035011

Chen, X. C., Litvinov, Y. A., Wang, M., Wang, Q., & Zhang, Y. H. (2019). Denoising scheme based on singular-value decomposition for one-dimensional spectra and its application in precision storage-ring mass spectrometry. *Physical Review E*, 99(6), 063320. doi:10.1103/PhysRevE.99.063320

Chen, Y.-Y., Hatsagortsyan, K. Z., & Keitel, C. H. (2019). Generation of twisted γ -ray radiation by nonlinear Thomson scattering of twisted light. *Matter and Radiation at Extremes*, 4, 024401. doi:10.1063/1.5086347

Chen, Y.-Y., He, P.-L., Shaisultanov, R., Hatsagortsyan, K. Z., & Keitel, C. H. (2019). Polarized Positron Beams via Intense Two-Color Laser Pulses. *Physical Review Letters*, 123(17), 174801. doi:10.1103/PhysRevLett.123.174801

Coello Pérez, E. A., Menéndez, J., & Schwenk, A. (2019). Two-neutrino double electron capture on ^{124}Xe based on an effective theory and the nuclear shell model. *Physics Letters B*, 797, 134885. doi:10.1016/j.physletb.2019.134885

Coleman, J., Danilov, M., Gratta, G., Heeger, K., Huber, P., Hor, Y., ... Zhan, L. (2019). Neutrino-Based Tools for Nuclear Verification and Diplomacy in North Korea. *Science & Global Security*, 27(1), 15–28. doi:10.1080/08929882.2019.1603007

Collaboration, H. E. S. S., Abdalla, H., Adam, R., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Meyer, M. (2019). The 2014 TeV γ -Ray Flare of Mrk 501 Seen with H.E.S.S.: Temporal and Spectral Constraints on Lorentz Invariance Violation. *Astrophysical Journal*, 870(2), 93. doi:10.3847/1538-4357/aaf1c4

Collaboration, H. E. S. S., Abdalla, H., Adam, R., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Meyer, M. (2019). H.E.S.S. observations of the flaring gravitationally lensed galaxy PKS 1830–211. *Monthly Notices of the Royal Astronomical Society*, 486(3), 3886–3891. doi:10.1093/mnras/stz1031

Collaboration, H. E. S. S., Abdalla, H., Adam, R., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Meyer, M. (2019). Upper limits on very-high-energy gamma-ray emission from core-collapse supernovae observed with H.E.S.S. *Astronomy and Astrophysics*, 626, A57. doi:10.1051/0004-6361/201935242

Collaboration, H. E. S. S., Abdalla, H., Adam, R., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Meyer, M. (2019). Particle transport within the pulsar wind nebula HESS J1825–137. *Astronomy and Astrophysics*, 621, A116. doi:10.1051/0004-6361/201935242

Collaboration, H. E. S. S., Abdalla, H., Adam, R., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Meyer, M. (2019). H.E.S.S. and Suzaku observations of the Vela X pulsar wind nebula. *Astronomy and Astrophysics*, 627, A100. doi:10.1051/0004-6361/201935458

Collaboration, H. E. S. S., Abdalla, H., Adam, R., Aharonian, F., Ait Benkhali, F., Angüner, E. O., ... Meyer, M. (2019). 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. *Astronomy and Astrophysics*, 627, A159. doi:10.1051/0004-6361/201935704

Collaboration, H. E. S. S., Abdalla, H., Aharonian, F., Ait Benkhali, F., Angüner, E. O., Arakawa, M., ... Źywucka, N. (2019). Resolving the Crab pulsar wind nebula at teraelectronvolt energies. *Nature Astronomy*. doi:10.1038/s41550-019-0910-0

Cremonesi, L., Connolly, A., Allison, P., Banerjee, O., Batten, L., Beatty, J. J., ... Wissel, S. A. (2019). The simulation of the sensitivity of the Antarctic Impulsive Transient Antenna (ANITA) to Askaryan radia-

tion from cosmogenic neutrinos interacting in the Antarctic Ice. *Journal of Instrumentation*, 14, P08011. doi:10.1088/1748-0221/14/08/P08011

Croon, D., Gonzalo, T. E., Graf, L., Košnik, N., & White, G. (2019). GUT Physics in the era of the LHC. *Frontiers of Physics*, 7, 76. doi:10.3389/fphy.2019.00076

Dal Bello, R., Martins, P. M., Graca, J., Hermann, G., Kihm, T., & Seco, J. (2019). Results from the experimental evaluation of CeBr₃ scintillators for ⁴He prompt gamma spectroscopy. *Medical Physics*, 46(8), 3615–3626. doi:10.1002/mp.13594

Debierre, V. (2019). Lorentz Generators for the Maxwell Field and Gauge Fixing. *Communications in Theoretical Physics*, 71(4), 403–409. doi:10.1088/0253-6102/71/4/403

Dembinski, H. P., Schmelling, M., & Waldi , R. (2019). Application of the Iterated Weighted Least-Squares Fit to counting experiments. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 940, 135–141. doi:10.1016/j.nima.2019.05.086

Dev, B., Mohapatra, R. N., Rodejohann, W., & Xu, X. (2019). Vacuum structure of the left-right symmetric model. *Journal of High Energy Physics : JHEP*, 2019(02), 154. doi:10.1007/JHEP02(2019)154

Devlin, J. A., Wursten, E., Harrington, J. A., Higuchi, T., Blessing, P. E., Borchert, M. J., ... Ulmer, S. (2019). Superconducting Solenoid System with Adjustable Shielding Factor for Precision Measurements of the Properties of the Antiproton. *Physical Review Applied*, 12(4), 044012. doi:10.1103/PhysRevApplied.12.044012

Di Piazza, A., Tamburini, M., Meuren , S., & Keitel, C. H. (2019). Improved local-constant-field approximation for strong-field QED codes. *Physical Review A*, 99(2), 022125. doi:10.1103/PhysRevA.99.022125

Ding, T., Rebholz, M., Aufleger, L., Hartmann, M., Meyer, K., Stooß, V., ... Pfeifer, T. (2019). Nonlinear Coherence Effects in Transient-Absorption Ion Spectroscopy with Stochastic Extreme-Ultraviolet Free-Electron Laser Pulses. *Physical Review Letters*, 123(10), 103001 . doi:10.1103/PhysRevLett.123.103001

Dolinski, M. J., Poon, A. W. P., & Rodejohann, W. (2019). Neutrinoless Double-Beta Decay: Status and Prospects. *Annual Review of Nuclear and Particle Science*, 69, 219–251. doi:10.1146/annurev-nucl-101918-023407

Döring, C., Hansen, R., & Lindner, M. (2019). Stability of three neutrino flavor conversion in supernovae. *Journal of Cosmology and Astroparticle Physics*, 2019(08), 003. doi:10.1088/1475-7516/2019/08/003

Dorn, A., Weyland, M., & Ren, X. (2019). Electron-ion momentum vector coincidences in electron collisions with atoms and molecules. *Journal of Electron Spectroscopy and Related Phenomena*, 230, 33–39. doi:10.1016/j.elspec.2017.09.007

Drischler, C., Hebeler, K., & Schwenk, A. (2019). Chiral interactions up to next-to-next-to-next-to-leading order and nuclear saturation. *Physical Review Letters*, 122(04), 042501. doi:10.1103/PhysRevLett.122.042501

Egl, A., Arapoglou, I., Höcker, M., König, K., Ratajczyk, T., Sailer, T., ... Sturm, S. (2019). Application of the Continuous Stern-Gerlach Effect for Laser Spectroscopy of the ⁴⁰Ar¹³⁺ Fine Structure in a Penning Trap. *Physical Review Letters*, 123(12), 123001. doi:10.1103/PhysRevLett.123.123001

Fink, D., Blaum, K., Fedosseev, V. N., Marsh, B. A., Rossel, R. E., & Rothe, S. (2019). Determination of the first ionization energy of polonium by resonance ionization spectroscopy – Part II: Measurement of odd-

parity Rydberg states at CERN-ISOLDE. Spectrochimica Acta Part B: Atomic Spectroscopy, 151, 72–82. doi:10.1016/j.sab.2018.08.004

Frömmgen, N., Nörtershäuser, W., Bissell, M. L., Blaum, K., Geppert, C., Hammen, M., ... Yordanov, D. T. (2019). Hyperfine structure and nuclear magnetic moments of the praseodymium isotopes $^{135,136,137}\text{Pr}$. Hyperfine Interactions, 240, 66. doi:10.1007/s10751-019-1608-5

Funk, S., & Hinton, J. A. (2019). The first Cherenkov Telescope Array Science Symposium. Nature Astronomy, 3, 592–593. doi:10.1038/s41550-019-0830-z

Gandolfi, S., Hammer, H.-W., Klos, P., Lynn, J. E., & Schwenk, A. (2019). Reply to Comment on “Is a Trineutron Resonance Lower in Energy than a Tetraneutron Resonance?” Physical Review Letters, 123(6), 069202. doi:10.1103/PhysRevLett.123.069202

GERDA collaboration, Agostini, M., Bakalyarov, A. M., Andreotti, E., Balata, M., Barabanov, I., ... Zuzel, G. (2019). Characterization of ^{30}Ge enriched Broad Energy Ge detectors for GERDA Phase II. European Physical Journal C, 79, 978. doi:10.1140/epjc/s10052-019-7353-8

GERDA collaboration, Agostini, M., Bakalyarov, A. M., Balata, M., Barabanov, I., Baudis, L., Bauer, C., ... Zuzel, G. (2019). Probing Majorana neutrinos with double- β decay. Science, 365(6460), 1445–1448. doi:10.1126/science.aav8613

Giacinti, G., & Kirk, J. G. (2019). TeV-PeV Cosmic-Ray Anisotropy and Local Interstellar Turbulence. Journal of Physics: Conference Series, 1181, 012035. doi:10.1088/1742-6596/1181/1/012035

Giacinti, G., & López-Coto, R. (2019). Constraints on the properties of the turbulent magnetic field around Geminga using HAWC measurements. Journal of Physics: Conference Series, 1181, 012046. doi:10.1088/1742-6596/1181/1/012046

Ginsburg, A., Sipocz, B. M., Brasseur, C. E., Cowperthwaite, P. S., Craig, M. W., Deil, C., ... Woillez, J. (2019). astroquery: An Astronomical Web-querying Package in Python. Astronomical Journal, 157(3), 98. doi:10.3847/1538-3881/aafc33

Glazov, D. A., Köhler-Langes, F., Volotka, A. V., Blaum, K., Heiße, F., Plunien, G., ... Werth, G. (2019). g Factor of Lithiumlike Silicon: New Challenge to Bound-State QED. Physical Review Letters, 123(17), 173001. doi:10.1103/PhysRevLett.123.173001

Glorius, J., Langer, C., Slavkovská, Z., Bott, L., Brandau, C., Bückner, B., ... Xing, Y. M. (2019). Approaching the Gamow window with stored ions: Direct measurement of $^{124}\text{Xe}(p, \gamma)$ in the ESR storage ring. Physical Review Letters, 122(09), 092701. doi:10.1103/PhysRevLett.122.092701

Goerttler, S., Heeg, K. P., Kaldun, A., Reiser, P., Strohm, C., Haber, J., ... Pfeifer, T. (2019). Time-Resolved sub-Ångström Metrology by Temporal Phase Interferometry near X-Ray Resonances of Nuclei. Physical Review Letters, 123(15), 153902. doi:10.1103/PhysRevLett.123.153902

Goertz, F. (2019). Indirect estimation of masses beyond collider reach in EFT. Journal of High Energy Physics : JHEP, 2019(5), 090. doi:10.1007/JHEP05(2019)090

Goertz, F., Tame Narvaez, K., & Tenorth, V. (2019). Di-jet/e⁺e⁻ + MET to probe Z2-odd mediators to the dark sector. European Physical Journal C, 79, 860. doi:10.1140/epjc/s10052-019-7374-3

Gorges, C., Rodríguez, L. V., Balabanski, D. L., Bissell, M. L., Blaum, K., Cheal, B., ... Yordanov, D. T. (2019). Laser Spectroscopy of Neutron-Rich Tin Isotopes: A Discontinuity in Charge Radii across the N =

82 Shell Closure. *Physical Review Letters*, 122(19), 192502. doi:10.1103/PhysRevLett.122.192502

Greif, S. K., Raaijmakers, G., Hebeler, K., Schwenk, A., & Watts, A. L. (2019). Equation of state sensitivities when inferring neutron star and dense matter properties. *Monthly Notices of the Royal Astronomical Society*, 485(4), 5363–5376. doi:10.1093/mnras/stz654

Grün, E., Krueger, H., & Srama, R. (2019). The Dawn of Dust Astronomy. *Space Science Reviews*, 215(7), UNSP 46. doi:10.1007/s11214-019-0610-1

Gu, L., Raassen, A. J. J., Mao, J., de Plaa, J., Shah, C., Pinto, C., ... Kaastra, J. S. (2019). X-ray spectra of the Fe-L complex. *Astronomy and Astrophysics*, 627, A51. doi:10.1051/0004-6361/201833860

Gysbers, P., Hagen, G., Holt, J. D., Jansen, G. R., Morris, T. D., Navratil, P., ... Wendt, K. A. (2019). Discrepancy between experimental and theoretical β -decay rates resolved from first principles. *Nature Physics*, 15, 428–431. doi:10.1038/s41567-019-0450-7

Hakenmüller, J., Buck, C., Füller, K., Heusser, G., Klages, T., Lindner, M., ... Zimbal, A. (2019). Neutron-induced background in the CONUS experiment. *European Physics Journal C*, 79, 699. doi:10.1140/epjc/s10052-019-7160-2

Hansen, R., & Smirnov, A. Y. (2019). Effect of extended neutrino production region on collective oscillations in supernovae. *Journal of Cosmology and Astroparticle Physics*, 2019(10), 027. doi:10.1088/1475-7516/2019/10/027

Hanusch, A., Liseykina V. T., Malkov, M., & Aharonian, F. (2019). Steepening of Cosmic-Ray Spectra in Shocks with Varying Magnetic Field Direction. *Astrophysical Journal*, 885(1), 11. doi:10.3847/1538-4357/ab426d

Harman, Z., Shah, C., González Martínez, A. J., Jentschura, U. D., Tawara, H., Keitel, C. H., ... Crespo López-Urrutia, J. R. (2019). Resonance strengths for KLL dielectronic recombination of highly charged mercury ions and improved empirical Z-scaling law. *Physical Review A*, 99(01), 012506. doi:10.1103/PhysRevA.99.012506

Harth, A., Douguet, N., Bartschat, K., Moshammer, R., & Pfeifer, T. (2019). Extracting phase information on continuum-continuum couplings. *Physical Review A*, 99(2), 023410. doi:10.1103/PhysRevA.99.023410

Hartmann, M., Stooß, V., Birk, P., Borisova, G. D., Ott, C., & Pfeifer, T. (2019). Attosecond precision in delay measurements using transient absorption spectroscopy. *Optics Letters*, 44(19), 4749–4752. doi:10.1364/OL.44.004749

Haug, J., & Cavalletto, S. (2019). Light-induced states in the transient-absorption spectrum of a periodically pumped strong-field-excited system. *Physical Review A*, 99(1), 013434. doi:10.1103/PhysRevA.99.013434

HAWC Collaboration, Abeysekara, A. U., Albert, A., Alfaro, R., Alvarez, C., Álvarez, J. D., ... Zhou, H. (2019). Measurement of the Crab Nebula Spectrum Past 100 TeV with HAWC. *The Astrophysical Journal*, 881(2), 134. doi:10.3847/1538-4357/ab2f7d

Hawton, M., & Debierre, V. (2019). Photon position eigenvectors, Wigner's little group, and Berry's phase. *Journal of Mathematical Physics*, 60(5), 052104. doi:10.1063/1.5009073

He, Y., Liu, Z., Cui, Z., Zhang, Y., Pfeiffer, A. N., Pfeifer, T., ... Hui, B. (2019). Signatures of self-modulation effects during pulse propagation in single-pulse absorption spectra. *Physical Review A*, 99(5), 053418. doi:10.1103/PhysRevA.99.053418

Hechtfischer, U., Levin, J., Lange, M., Knoll, L., Schwalm, D., Wester, R., ... Zajfman, D. (2019). Near-threshold photodissociation of cool OH⁺ to O⁺H⁺ and O⁺+H. *The Journal of Chemical Physics*, 151(4), 044303. doi:10.1063/1.5098321

Heeck, J., Lindner, M., Rodejohann, W., & Vogl, S. (2019). Non-Standard Neutrino Interactions and Neutral Gauge Bosons. *SciPost Physics*, 6, 038. doi:10.21468/SciPostPhys.6.3.038

Heiße, F., Rau, S., Köhler-Langes, F., Quint, W., Werth, G., Sturm, S., & Blaum, K. (2019). High-precision mass spectrometer for light ions. *Physical Review A*, 100(2), 022518. doi:10.1103/PhysRevA.100.022518

Helmboldt, A., Kubo, J., & van der Woude, S. (2019). Observational prospects for gravitational waves from hidden or dark chiral phase transitions. *Physical Review D*, 100(5), 055025. doi:10.1103/PhysRevD.100.055025

Henis, Z., Eliezer, S., & Raicher, E. (2019). Collisional shock waves induced by laser radiation pressure. *Laser and Particle Beams*, 37(3), 268–275. doi:10.1017/S0263034619000478

Hoferichter, M., Klos, P., Menéndez, J., & Schwenk, A. (2019). Nuclear structure factors for general spin-independent WIMP-nucleus scattering. *Physical Review D*, 99(5), 055031. doi:10.1103/PhysRevD.99.055031

Högberg, C., Lossow, S., Khosrawi, F., Bauer, R., Walker, K. A., Eriksson, P., ... Zhang, Q. (2019). The SPARC water vapour assessment II: profile-to-profile and climatological comparisons of stratospheric δD(H₂O) observations from satellite. *Atmospheric Chemistry and Physics*, 19(4), 2497–2526. doi:10.5194/acp-19-2497-2019

Hoppe, J., Drischler, C., Hebeler, K., Schwenk, A., & Simonis, J. (2019). Probing chiral interactions up to next-to-next-to-next-to-leading order in medium-mass nuclei. *Physical Review C*, 100(2), 024318. doi:10.1103/PhysRevC.100.024318

Huang, W., Atanasov, D., Audi, G., Blaum, K., Cakirli, R. B., Herlert, A., ... Zuber, K. (2019). Evaluation of high-precision atomic masses of A ~ 50–80 and rare-earth nuclides measured with ISOLTRAP. *The European Physical Journal A: Hadrons and Nuclei*, 55, 96. doi:10.1140/epja/i2019-12775-5

Hult, M., Charette, M., Lutter, G., Marissens, G., Henderson, P., Sobiech-Matura, K., & Simgen, H. (2019). Underground gamma-ray measurements of radium isotopes from hydrothermal plumes in the deep Pacific Ocean. *Applied Radiation and Isotopes*, 153, 108831. doi:10.1016/j.apradiso.2019.108831

Ivanov, I. P., Nishi, C. C., Silva, J. P., & Trautner, A. (2019). Basis-invariant conditions for CP symmetry of order four. *Physical Review D*, 99(1), 015039. doi:10.1103/PhysRevD.99.015039

Ivanov, I. P., Nishi, C. C., & Trautner, A. (2019). Beyond basis invariants. *European Physical Journal C*, 79(4), 315. doi:10.1140/epjc/s10052-019-6845-x

Joshi, V., Hinton, J., Schoorlemmer, H., López-Coto, R., & Parsons, R. D. (2019). A Template-based gamma-ray Reconstruction Method for Air Shower Arrays. *Journal of Cosmology and Astroparticle Physics*, 2019(01), 012. doi:10.1088/1475-7516/2019/01/012

Kafexhiu, E., Aharonian, F., & Barkov, M. (2019). Nuclear gamma-ray emission from very hot accretion flows. *Astronomy and Astrophysics*, 623, A174. doi:10.1051/0004-6361/201833948

Kafexhiu, E., Aharonian, F., & Barkov, M. (2019). Gamma-ray emission of hot astrophysical plasma. *Physical Review D*, 99(6), 063007. doi:10.1103/PhysRevD.99.063007

Karthein, J., Atanasov, D., Blaum, K., Breitenfeldt, M., Bondar, V., George, S., ... Zuber, K. (2019). QEC-value determination for $^{21}\text{Na} \rightarrow ^{21}\text{Ne}$ and $^{23}\text{Mg} \rightarrow ^{23}\text{Na}$ mirror-nuclei decays using high-precision mass spectrometry with ISOLTRAP at ISOLDE/CERN. *Physical Review C*, 100, 015502. doi:10.1103/PhysRevC.100.015502

Karthein, J., Atanasov, D., Blaum, K., Eliseev, S., Filianin, P., Lunney, D., ... Zuber, K. (2019). Direct decay-energy measurement as a route to the neutrino mass. *Hyperfine Interactions*, 240, 61. doi:10.1007/s10751-019-1601-z

KATRIN Collaboration, Aker, M., Altenmüller, K., Arenz, M., Babutzka, M., Barrett, J., Bauer, S., ... Zeller, G. (2019). Improved Upper Limit on the Neutrino Mass from a Direct Kinematic Method by KATRIN. *Physical Review Letters*, 123(22), 221802. doi:10.1103/PhysRevLett.123.221802

Kawamura, J., Raby, S., & Trautner, A. (2019). Complete vectorlike fourth family and new $U(1)'$ for muon anomalies. *Physical Review D*, 100(5), 055030.

Keitel, C. H. (2019). Wie genau trennt sich ein Elektron vom Atom?. In *Physik Journal* (Vol. 18. Jg., pp. 22–23). Weinheim: Wiley-VCH.

Khan, A. (2019). $\sin^2 \theta_W$ estimate and neutrino electromagnetic properties from low-energy solar data. *Journal of Physics G: Nuclear and Particle Physics*, 46(3), 035005. doi:10.1088/1361-6471/ab0057

Kirk, J. G., & Giacinti, G. (2019). Inductive acceleration of ions in Poynting-flux dominated outflows. *The Astrophysical Journal*, 884, 62. doi:10.3847/1538-4357/ab3c61

Klein, C., Lindner, M., & Ohmer, S. (2019). Minimal radiative neutrino masses. *Journal of High Energy Physics : JHEP*, 2019(03), 018. doi:10.1007/JHEP03(2019)018

Klein, C., Lindner, M., & Vogl, S. (2019). Radiative neutrino masses and successful SU(5) unification. *Physical Review D*, 100(7), 075024. doi:10.1103/PhysRevD.100.075024

Klose, A., Minamisono, K., Miller, A. J., Brown, B. A., Garand, D., Holt, J. D., ... Watkins, J. (2019). Ground State Electromagnetic Moments of ^{37}Ca . *Physical Review C*, 99(6), 061301(R). doi:10.1103/PhysRevC.99.061301

Knauer, S., Fischer, P., Marx, G., Müller, M., Rosenbusch, M., Schabinger, B., ... Wolf, R. (2019). A multi-reflection time-of-flight setup for the improvement and development of new methods and the study of atomic clusters. *International Journal of Mass Spectrometry*, 446, UNSP 116189. doi:10.1016/j.ijms.2019.116189

Krachkov, P. A., Di Piazza, A., & Milstein, A. I. (2019). High-energy bremsstrahlung on atoms in a laser field. *Physics Letters B*, 797, 134814. doi:10.1016/j.physletb.2019.134814

Kreckel, H., Novotný, O., & Wolf, A. (2019). Astrochemical studies at the Cryogenic Storage Ring. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 377(2154), 0412. doi:10.1098/rsta.2018.0412

Krueger, H., Strub, P., Altobelli, N., Sterken, V. J., Srama, R., & Grün, E. (2019). Interstellar dust in the solar system: model versus in situ spacecraft data. *Astronomy and Astrophysics*, 626, A37. doi:10.1051/0004-6361/201834316

Krueger, H., Strub, P., Srama, R., Kobayashi, M., Arai, T., Kimura, H., ... Grün, E. (2019). Modelling DESTINY+ interplanetary and interstellar dust measurements en route to the active asteroid (3200) Phae-

thon. *Planetary and Space Science*, 172, 22–42. doi:10.1016/j.pss.2019.04.005

Kubo , J., Lindner, M., Schmitz, K., & Yamada , M. (2019). Planck mass and inflation as consequences of dynamically broken scale invariance. *Physical Review D*, 100(01), 015037. doi:10.1103/PhysRevD.100.015037

LaForge, A. C., Shcherbinin, M., Stienkemeier, F., Richter, R., Moshammer, R., Pfeifer, T., & Mudrich, M. (2019). Highly efficient double ionization of mixed alkali dimers by intermolecular Coulombic decay. *Nature Physics*, 15, 247–250. doi:10.1038/s41567-018-0376-5

Lau J. C., Rowell, G., Voisin , F., Blackwell , R., Burton, M. G., Braiding, C., ... Casanova, S. (2019). Probing the origin of the unidentified TeV gamma-ray source HESS J1702-420 via the surrounding interstellar medium. *Monthly Notices of the Royal Astronomical Society*, 483(3), 3659–3672. doi:10.1093/mnras/sty3326

Leopold, T., King, S. A., Micke, P., Bautista-Salvador, A., Heip, J. C., Ospelkaus, C., ... Schmidt, P. O. (2019). A cryogenic radio-frequency ion trap for quantum logic spectroscopy of highly charged ions. *Review of Scientific Instruments*, 90(7), 073201. doi:10.1063/1.5100594

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2019). Observation of new resonances in the $\Lambda 0 b\pi^+\pi^-$ system. *Physical Review Letters*, 123(15), 152001. doi:10.1103/PhysRevLett.123.152001

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2019). Precision measurement of the $\Lambda+c$, $\Xi+c$, and $\Xi 0c$ baryon lifetimes. *Physical Review D*, 100(3), 032001. doi:10.1103/PhysRevD.100.032001

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2019). Search for the Lepton-Flavor-Violating Decays $B_s^0 \rightarrow \tau^\pm \mu^{\mp}$ and $B^0 \rightarrow \tau^\pm \mu^{\mp}$. *Physical Review Letters*, 123(21), 211801. doi:10.1103/PhysRevLett.123.211801

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2019). Measurement of Charged Hadron Production in Z-Tagged Jets in Proton-Proton Collisions at $\sqrt{s}=8$ TeV. *Physical Review Letters*, 123(23), 232001. doi:10.1103/PhysRevLett.123.232001

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2019). Search for Lepton-Flavor Violating Decays $B^+ \rightarrow K^+ \mu^\pm e^{-/\pm}$. *Physical Review Letters*, 123(24), 241802. doi:10.1103/PhysRevLett.123.241802

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2019). Search for CP Violation in $D_s^+ \rightarrow K_s^0 \pi^+$, $D^+ \rightarrow K_s^0 K^+$, and $D^+ \rightarrow \phi \pi^+$ Decays. *Physical Review Letters*, 122(19), 191803. doi:10.1103/PhysRevLett.122.191803

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2019). Amplitude Analysis of $B^\pm \rightarrow \pi^\pm K^+ K^-$ Decays. *Physical Review Letters*, 123(23), 231802. doi:10.1103/PhysRevLett.123.231802

LHCb collaboration, Aaij, R., Beteta, C. A., Ackernley, T., Adeva, B., Adinolfi, M., ... Zucchelli, S. (2019). Measurement of the B_c^- meson production fraction and asymmetry in 7 and 13 TeV pp collisions. *Physical Review D*, 100(11), 112006. doi:10.1103/PhysRevD.100.112006

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). A search for $\Xi^+ + cc \rightarrow D^+ p K^- \pi^+$ decays. *Journal of High Energy Physics : JHEP*, 2019(10),

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Observation of the $\Lambda_b^0 \rightarrow \chi c 1$ (3872) pK⁻ decay . Journal of High Energy Physics : JHEP, 2019(9), 28. doi:10.1007/JHEP09(2019)028

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurements of CP asymmetries in charmless four-body Λ_b^0 and Ξ_b^0 decays. The European Physical Journal C: Particles and Fields, 79(10), 745. doi:10.1140/epjc/s10052-019-7218-1

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of the CP-violating phase ϕ_s from $B_s^0 \rightarrow J/\psi \pi^+ \pi^-$ decays in 13 TeV pp collisions. Physics Letters B, 797, 134789. doi:10.1016/j.physletb.2019.07.036

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Observation of $B_{(s)}^0 b \rightarrow J/\psi pp$ Decays and Precision Measurements of the $B_{(s)}^0$ Masses. Physical Review Letters, 122(19), 191804. doi:10.1103/PhysRevLett.122.191804

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Observation of Two Resonances in the $\Lambda_b^0 \pi^\pm$ Systems and Precise Measurement of Σ_b^\pm and $\Sigma_b^{*\pm}$ Properties. Physical Review Letters, 122(01), 012001. doi:10.1103/PhysRevLett.122.012001

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Prompt Λ_c^+ production in pPb collisions at $\sqrt{s}_{NN}=5.02$ TeV. Journal of High Energy Physics : JHEP, 2019(02), 102. doi:10.1007/JHEP02(2019)102

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of the ratio of branching fractions of the decays $\Lambda_b^0 \rightarrow \psi_{(2S)} \Lambda$ and $\Lambda_b^0 \rightarrow J/\psi \Lambda$. Journal of High Energy Physics : JHEP, 2019(03), 126. doi:10.1007/JHEP03(2019)126

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of b hadron fractions in 13 TeV pp collisions. Physical Review D, 100(3), 031102(R). doi:10.1103/PhysRevD.100.031102

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Observation of an Excited B_c^+ State. Physical Review Letters, 122(23), 232001. doi:10.1103/PhysRevLett.122.232001

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Observation of a Narrow Pentaquark State, $P_c(4312)^+$, and of the Two-Peak Structure of the $P_c(4450)^+$. Physical Review Letters, 122(22), 222001. doi:10.1103/PhysRevLett.122.222001

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). First Observation of the Radiative Decay $\Lambda_b^0 \rightarrow \Lambda \gamma$. Physical Review Letters, 123(3), 031801. doi:10.1103/PhysRevLett.123.031801

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of the relative $B^- \rightarrow D^0/D^{*0}/D^{**0} \mu^- \nu \mu$ branching fractions using B^- mesons from $B^{*0}s2$ decays= 13 TeV. Physical Review D, 99(9), 092009. doi:10.1103/PhysRevD.99.092009

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of the branching fractions of the decays $D^+ \rightarrow K^- K^+ K^+$, $D^+ \rightarrow \pi^- \pi^+ K^+$ and $D_s^+ \rightarrow \pi^- K^+ K^+$. Journal of High Energy Physics : JHEP, 2019(03), 176. doi:10.1007/JHEP03(2019)176

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Search for CP violation through an amplitude analysis of $D^0 \rightarrow K^+ K^- \pi^+ \pi^-$ decays. *Journal of High Energy Physics : JHEP*, 2019(02), 126. doi:10.1007/JHEP02(2019)126

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). First Measurement of Charm Production in its Fixed-Target Configuration at the LHC. *Physical Review Letters*, 122(12), 132002. doi:10.1103/PhysRevLett.122.132002

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Updated measurement of time-dependent CP-violating observables in $B_s^0 \rightarrow J/\psi K^+ K^-$ decays. *The European Physical Journal C: Particles and Fields*, 79, 706. doi:10.1140/epjc/s10052-019-7159-8

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of the Mass Difference Between Neutral Charm-Meson Eigenstates. *Physical Review Letters*, 122(23), 231802. doi:10.1103/PhysRevLett.122.231802

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Search for Lepton-Universality Violation in $B^+ \rightarrow K^+ \ell^+ \ell^-$ Decays. *Physical Review Letters*, 122(19), 191801. doi:10.1103/PhysRevLett.122.191801

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of the Charm-Mixing Parameter y_{CP} . *Physical Review Letters*, 122(01), 011802. doi:10.1103/PhysRevLett.122.011802

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Model-Independent Observation of Exotic Contributions to $B^0 \rightarrow J/\psi K^+ \pi^-$ Decays. *Physical Review Letters*, 122(15), 152002. doi:10.1103/PhysRevLett.122.152002

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of B^+ , B^0 and Λ_b^0 production in pPb collisions at $\sqrt{s}_{NN}=8.16$ TeV. *Physical Review D*, 99(05), 052011. doi:10.1103/PhysRevD.99.052011

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Amplitude analysis of the $B^0_{(s)} \rightarrow K^{*0} K^{*0}$ decays and measurement of the branching fraction of the $B^0 \rightarrow K^{*0} K^*$ decay. *Journal of High Energy Physics : JHEP*, 2019(07), 32. doi:10.1007/JHEP07(2019)032

Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Near-threshold DD-spectroscopy and observation of a new charmonium state. *Journal of High Energy Physics : JHEP*, 2019(07), 35. doi:10.1007/JHEP07(2019)035

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of the branching fraction and asymmetry in $B^+ \rightarrow J/\psi \rho^+$ decays. *The European Physical Journal C: Particles and Fields*, 79, 537. doi:10.1140/epjc/s10052-019-6698-3

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Observation of CP Violation in Charm Decays. *Physical Review Letters*, 122(21), 211803. doi:10.1103/PhysRevLett.122.211803

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of the mass and production rate of Ξ_b^- baryons. *Physical Review D*, 99(05), 052006. doi:10.1103/PhysRevD.99.052006

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Search for the rare decay $B^+ \rightarrow \mu^+\mu^-\mu^+\nu\mu$. *The European Physical Journal C: Particles and Fields*, 79, 675. doi:10.1140/epjc/s10052-019-7112-x

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of CP-Violating and Mixing-Induced Observables in $B_s^0 \rightarrow \phi\gamma$ Decays. *Physical Review Letters*, 123(8), 081802. doi:10.1103/PhysRevLett.123.081802

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Erratum to: Measurement of Y production in pp collisions at $s = 13$ TeV (*Journal of High Energy Physics*, (2018), 2018, 7, (134), 10.1007/JHEP07(2018)134)= 13 TeV. *Journal of High Energy Physics : JHEP*, 2019(05), 076. doi:10.1007/JHEP05(2019)076

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Dalitz plot analysis of the $D^+ \rightarrow K^+K^+K^+$ decay. *Journal of High Energy Physics : JHEP*, 2019(04), 063. doi:10.1007/JHEP04(2019)063

Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Observation of the doubly Cabibbo-suppressed decay $\Xi_c^+ \rightarrow p\phi$. *Journal of High Energy Physics : JHEP*, 2019(04), 084. doi:10.1007/JHEP04(2019)084

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Study of the $B^0 \rightarrow \rho(770)^0 K^*(892)^0$ decay with an amplitude analysis of $B^0 \rightarrow (\pi^+\pi^-)(K^+\pi^-)$ decays. *Journal of High Energy Physics : JHEP*, 2019(05), 26. doi:10.1007/JHEP05(2019)026

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Measurement of CP observables in the process $B^0 \rightarrow D K^{*0}$ with two- and four-body D decays. *Journal of High Energy Physics : JHEP*, 2019(08), 41. doi:10.1007/JHEP08(2019)041

LHCb collaboration, Aaij, R., Beteta, C. A., Adeva, B., Adinolfi, M., Aidala, C. A., Ajaltouni, Z., ... Zucchelli, S. (2019). Amplitude analysis of $B_s^0 \rightarrow K_s^0 K^\pm \pi^{\mp/+}$ decays. *Journal of High Energy Physics : JHEP*, 2019(06), 114. doi:10.1007/JHEP06(2019)114

Li, Y.-F., Guo, R.-T., Shaisultanov, R., Hatsagortsyan, K. Z., & Li, J.-X. (2019). Electron Polarimetry with Nonlinear Compton Scattering. *Physical Review Applied*, 12(1), 014047. doi:10.1103/PhysRevApplied.12.014047

Li, Y.-F., Li, J.-X., Hatsagortsyan, K. Z., Zhao, Y.-T., Zhang, B., Li, Y.-T., ... Keitel, C. H. (2019). Determining the carrier-envelope phase of relativistic laser pulses via electron-momentum distribution. *Physical Review A*, 99(1), 013850. doi:10.1103/PhysRevA.99.013850

Li, Y.-F., Shaisultanov, R., Hatsagortsyan, K. Z., Wan, F., Keitel, C. H., & Li, J.-X. (2019). Ultrarelativistic Electron-Beam Polarization in Single-Shot Interaction with an Ultraintense Laser Pulse. *Physical Review Letters*, 122(15), 154801. doi:10.1103/PhysRevLett.122.154801

Link, J. M., & Xu, X. (2019). Searching for BSM neutrino interactions in dark matter detectors. *Journal of High Energy Physics : JHEP*, 2019(08), 004. doi:10.1007/JHEP08(2019)004

Liu, B., Yang, R., Sun, X., Aharonian, F., & Chen, Y. (2019). The GeV Emission in the Field of the Star-forming Region W30 Revisited. *Astrophysical Journal*, 881(2), 94. doi:10.3847/1538-4357/ab2df8

Liu, H. N., Obertelli, A., Doornenbal, P., Bertulani, C. A., Hagen, G., Holt, J. D., ... Zanetti, L. (2019). How Robust is the $N = 34$ Subshell Closure? First Spectroscopy of ^{52}Ar . *Physical Review Letters*, 122(7), 072502.

doi:10.1103/PhysRevLett.122.072502

Liu, X., Amini, K., Steinle, T., Sanchez, A., Shaikh, M., Belsa, B., ... Biegert, J. (2019). Imaging an isolated water molecule using a single electron wave packet. *The Journal of Chemical Physics*, 151(2), 024306. doi:10.1063/1.5100520

Lu, Q., He, J., Tian, H., Li, M., Yang, Y., Yao, K., ... Zou, Y. (2019). Observation of indirect ionization of W⁷⁺ in an electron-beam ion-trap plasma. *Physical Review A*, 99(4), 042510. doi:10.1103/PhysRevA.99.042510

Mackenroth, F., Kumar, N., Neitz, N., & Keitel, C. H. (2019). Nonlinear Compton scattering of an ultraintense laser pulse in a plasma. *Physical Review E*, 99(3), 033205. doi:10.1103/PhysRevE.99.033205

Mackey, J., Walch, S., Seifried, D., Glover, S. C. O., Wuensch, R., & Aharonian, F. (2019). Non-equilibrium chemistry and destruction of CO by X-ray flares. *Monthly Notices of the Royal Astronomical Society*, 486(1), 1094–1122. doi:10.1093/mnras/stz902

Malkov, M. A., & Aharonian, F. A. (2019). Cosmic-ray Spectrum Steepening in Supernova Remnants. I. Loss-free Self-similar Solution. *Astrophysical Journal*, 881(1), 2. doi:10.3847/1538-4357/ab2c01

Mercadier, L., Benediktovitch, A., Weninger, C., Blessenohl, M. A., Bernitt, S., Bekker, H., ... Rohringer, N. (2019). Evidence of Extreme Ultraviolet Superfluorescence in Xenon. *Physical Review Letters*, 123(2), 023201. doi:10.1103/PhysRevLett.123.023201

Michel, N., & Oreshkina, N. S. (2019). Higher-order corrections to the dynamic hyperfine structure of muonic atoms. *Physical Review A*, 99(4), 042501. doi:10.1103/PhysRevA.99.042501

Michel, N., Zatorski, J., Oreshkina, N. S., & Keitel, C. H. (2019). Nonperturbative analysis of nuclear shape effects on the bound electron g factor. *Physical Review A*, 99(1), 012505. doi:10.1103/PhysRevA.99.012505

Micke, P., Stark, J., King, S. A., Leopold, T., Pfeifer, T., Schmoeger, L., ... Crespo López Urrutia, J. R. (2019). Closed-cycle, low-vibration 4 K cryostat for ion traps and other applications. *Review of Scientific Instruments*, 90(6), 065104. doi:10.1063/1.5088593

Minkov, N., & Pálffy, A. (2019). Theoretical Predictions for the Magnetic Dipole Moment of 229mTh. *Physical Review Letters*, 122(16), 162502. doi:10.1103/PhysRevLett.122.162502

Minkov, N., & Pálffy, A. (2019). The Magnetic Moment as a Constraint in Determining the ^{229m}Th Isomer Decay Rates. *Acta Physica Polonica B*, 12(3), 629–636. doi:10.5506/APhysPolBSupp.12.629

Mistry, A. K., Khuyagbaatar, J., Hessberger, F. P., Ackermann, D., Andel, B., Antalic, S., ... Zhang, Z. (2019). The ⁴⁸Ca⁺ ¹⁸¹Ta reaction: Cross section studies and investigation of neutron-deficient 86 ≤ Z ≤ 93 isotopes. *Nuclear Physics A*, 987, 337–349. doi:10.1016/j.nuclphysa.2019.05.003

Mitchell, A. M. W., Dembinski, H. P., & Parsons, R. D. (2019). Potential for measuring the longitudinal and lateral profile of muons in TeV air showers with IACTs. *Astroparticle Physics*, 111, 23–34. doi:10.1016/j.astropartphys.2019.03.005

Morris, P. J., Chakraborty, N., & Cotter, G. (2019). Deviations from normal distributions in artificial and real time series: a false positive prescription. *Monthly Notices of the Royal Astronomical Society*, 489(2), 2117–2129. doi:10.1093/mnras/stz2259

Niederwanger, F., Reimer, O., Kissmann, R., Strong, A. W., Popescu, C. C., & Tuffs, R. (2019). The consequence of a new ISRF model of the Milky Way on predictions for diffuse gamma-ray emission. *Astroparticle Physics*, 107, 1–14. doi:10.1016/j.astropartphys.2018.11.001

Nigro, C., Deil, C., Zanin, R., Hassan, T., King, J., Ruiz, J. E., ... Sinha, A. (2019). Towards open and reproducible multi-instrument analysis in gamma-ray astronomy. *Astronomy and Astrophysics*, 625, A10. doi:10.1051/0004-6361/201834938

Novotný, O., Wilhelm, P., Paul, D., Kalosi, A., Saurabh, S., Becker, A., ... Wolf, A. (2019). Quantum-state-selective electron recombination studies suggest enhanced abundance of primordial HeH⁺. *Science*, 365(6454), 676–679. doi:10.1126/science.aax5921

Obaid, R., Schnorr, K., Wolf, T. J. A., Takanashi, T., Kling, N. G., Kooser, K., ... Berrah, N. (2019). Photoionization and fragmentation of Sc₃N@C₈₀ following excitation above the Sc K-edge. *The Journal of Chemical Physics*, 151(10), 104308. doi:10.1063/1.5110297

Ohmer, S. (2019). Spontaneous CP violation and the strong CP problem in left-right symmetric theories. *Physical Review D*, 99(11), 115031. doi:10.1103/PhysRevD.99.115031

Osmanov, Z., & Rieger, F. M. (2019). Rotationally driven VHE emission from the Vela pulsar. *Astronomy and Astrophysics*, 627, A22. doi:10.1051/0004-6361/201935030

Ott, C., Aufleger, L., Ding, T., Rebholz, M., Magunia, A., Hartmann, M., ... Pfeifer, T. (2019). Strong-field extreme-ultraviolet dressing of atomic double excitation. *Physical Review Letters*, 123(16), 163201. doi:10.1103/PhysRevLett.123.163201

Owen, E. R., Wu, K., Jin, X., Surajbali, P., & Kataoka, N. (2019). Starburst and post-starburst high-redshift protogalaxies The feedback impact of high energy cosmic rays. *Astronomy and Astrophysics*, 626, A85. doi:10.1051/0004-6361/201834350

Parsons, R. D., & Schoorlemmer, H. (2019). Systematic differences due to high energy hadronic interaction models in air shower simulations in the 100 GeV-100 TeV range. *Physical Review D*, 100(2), 023010. doi:10.1103/PhysRevD.100.023010

Peretti, E., Blasi , P., Aharonian, F., & Morlino, G. (2019). Cosmic ray transport and radiative processes in nuclei of starburst galaxies. *Monthly Notices of the Royal Astronomical Society*, 487(1), 168–180. doi:10.1093/mnras/stz1161

Podszus, T., & Di Piazza, A. (2019). High-energy behavior of strong-field QED in an intense plane wave. *Physical Review D*, 99(7), 076004. doi:10.1103/PhysRevD.99.076004

Povh, B., & Rosina , M. (2019). Proton Spin in Deep Inelastic Scattering. *Acta Physica Polonica B*, 12(4), 831–836. doi:10.5506/APhysPolBSupp.12.831

Raaijmakers, G., Riley, T. E., Watts, A. L., Greif, S. K., Morsink, S. M., Hebeler, K., ... Wolff, M. T. (2019). A NICER view of PSR J0030+0451: Implications for the dense matter equation of state. *Astrophysical Journal, Letters*, 887(1), L22. doi:10.3847/2041-8213/ab451a

Raicher, E., Eliezer, S., Keitel, C. H., & Hatsagortsyan, K. Z. (2019). Semiclassical limitations for photon emission in strong external fields. *Physical Review A*, 99(5), 052513. doi:10.1103/PhysRevA.99.052513

Recchia, S., Gabici, S., Aharonian, F. A., & Vink, J. (2019). Local fading accelerator and the origin of TeV cosmic ray electrons. *Physical Review D*, 99(10), 103022. doi:10.1103/PhysRevD.99.103022

Rieger, F. M., & Duffy, P. (2019). Particle Acceleration in Shearing Flows: Efficiencies and Limits. *The Astrophysical Journal Letters*, 886(2), L26. doi:10.3847/2041-8213/ab563f

Rodejohann, W., & Saldana Salazar, U. J. (2019). Multi-Higgs-doublet models and singular alignment. *Journal of High Energy Physics : JHEP*, 2019(7), 036. doi:10.1007/JHEP07(2019)036

Rodejohann, W., & Xu, X.-J. (2019). Loop-enhanced rate of neutrinoless double beta decay. *Journal of High Energy Physics : JHEP*, 2019(11), 29. doi:10.1007/JHEP11(2019)029

Romero-Wolf, A., Wissel, S. A., Schoorlemmer, H., Carvalho Jr, W. R., Alvarez-Muniz, J., Zas, E., ... Wang, S. H. (2019). Comprehensive analysis of anomalous ANITA events disfavors a diffuse tau-neutrino flux origin. *Physical Review D*, 99(6), 063011. doi:10.1103/PhysRevD.99.063011

Sailer , S., Werner , F., Hermann, G., Barcelo, M., Bauer, C., Bernhard, S., ... Wolf, D. (2019). Trigger performance verification of the FlashCam prototype camera. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 936, 392–393. doi:10.1016/j.nima.2018.08.104

Salamin, Y. I. (2019). Momentum and energy considerations of a Bessel-Bessel laser bullet. *OSA Continuum*, 2(7), 2162–2171. doi:10.1364/OSAC.2.002162

Schippers, S., Sokell, E., Aumayr, F., Sadeghpour, H., Ueda, K., Bray, I., ... O'Sullivan, G. (2019). Roadmap on photonic, electronic and atomic collision physics: II. Electron and antimatter interactions. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 52, 171002. doi:10.1088/1361-6455/ab26e0

Schmid, G., Schnorr, K., Augustin, S., Meister, S., Lindenblatt, H. C., Trost, F., ... Moshammer, R. (2019). Reaction microscope endstation at FLASH2. *Journal of Synchrotron Radiation*, 26(part3), 854–867. doi:10.1107/S1600577519002236

Schmid, G., Schnorr, K., Augustin, S., Meister, S., Lindenblatt, H. C., Trost, F., ... Moshammer, R. (2019). Tracing charge transfer in argon dimers by XUV-pump IR-probe experiments at FLASH. *The Journal of Chemical Physics*, 151(8), 084314. doi:10.1063/1.5116234

Schmid, G., Schnorr, K., Augustin, S., Meister, S., Lindenblatt, H. C., Trost, F., ... Moshammer, R. (2019). Terahertz-Field-Induced Time Shifts in Atomic Photoemission. *Physical Review Letters*, 122(7), 073001. doi:10.1103/PhysRevLett.122.073001

Schneider, A., Mooser, A., Rischka, A., Blaum, K., Ulmer, S., & Walz, J. (2019). A Novel Penning-Trap Design for the High-Precision Measurement of the ${}^3\text{He}^{2+}$ Nuclear Magnetic Moment. *Annalen Der Physik*, 531(5), 1800485. doi:10.1002/andp.201800485

Schoorlemmer, H., Hinton, J., & Lopez Coto, R. (2019). Characteristics of extensive air showers around the energy threshold for ground-particle-based γ -ray observatories. *European Physical Journal C*, 79, 427. doi:10.1140/epjc/s10052-019-6942-x

Schuh, M., Heiße, F., Eronen, T., Ketter, J., Köhler-Langes, F., Rau, S., ... Blaum, K. (2019). Image charge shift in high-precision Penning traps. *Physical Review A*, 100(2), 023411. doi:10.1103/PhysRevA.100.023411

Schweiger, C., König, C., Crespo López-Urrutia, J. R., Door, M., Dorrer , H., Düllmann , C. E., ... Blaum, K. (2019). Production of highly charged ions of rare species by laser-induced desorption inside an electron beam ion trap. *Review of Scientific Instruments*, 90, 123201. doi:10.1063/1.5128331

Seiferle, B., von der Wense, L., Bilous, P. V., Amersdorffer, I., Lemell, C., Libisch, F., ... Thirolf, P. G. (2019). Energy of the ^{229}Th nuclear clock transition. *Nature*, 573(7773), 243–246. doi:10.1038/s41586-019-1533-4

Sels, S., Goodacre, T. D., Marsh, B. A., Pastore, A., Ryssens, W., Tsunoda, Y., ... Zadvornaya, A. (2019). Shape staggering of mid-shell mercury isotopes from in-source laser spectroscopy compared with Density Functional Theory and Monte Carlo Shell Model calculations. *Physical Review C*, 99, 044306. doi:10.1103/PhysRevC.99.044306

Shaaran, T., Camus, N., Dura, J., Fechner, L., Thai, A., Britz, A., ... Moshammer, R. (2019). Role of high ponderomotive energy in laser-induced nonsequential double ionization. *Physical Review A*, 99(2), 023421. doi:10.1103/PhysRevA.99.023421

Shah, C., Crespo Lopez-Urrutia, J. R., Gu , M. F., Pfeifer, T., Marques, J., Grilo, F., ... Amaro, P. (2019). Revisiting the Fe XVII line emission problem: laboratory measurements of the 3s-2p and 3d-2p line-formation channels. *Astrophysical Journal*, 881, 100. doi:10.3847/1538-4357/ab2896

Shcherbinin, M. V., Vad Westergaard, F., Hanif, M., Krishnan, S. R., LaForge, A. C., Richter, R., ... Mudrich, M. (2019). Inelastic scattering of photoelectrons from He nanodroplets. *The Journal of Chemical Physics*, 150(4), 044304. doi:10.1063/1.5074130

Sinha, U., Keitel, C. H., & Kumar, N. (2019). Polarized Light from the Transportation of a Matter-Antimatter Beam in a Plasma. *Physical Review Letters*, 122(20), 204801. doi:10.1103/PhysRevLett.122.204801

Skoromnik, O. D., Feranchuk, I. D., & Lu, D. V. (2019). Parametric X-ray radiation in the Smith-Purcell geometry for non-destructive beam diagnostics. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 444, 125–134. doi:10.1016/j.nimb.2019.01.003

Smith, R., Kallman, T., Temi, P., Heilmann, R., Hodges-Kluck, E., Wilms, J., ... Miller, E. (2019). Laboratory Astrophysics Needs for X-ray Grating Spectrometers. *Bulletin of the American Astronomical Society*, 51(7), 110.

Smorra, C., Stadnik, Y. V., Blessing, P. E., Bohman, M., Borchert, M. J., Devlin, J. A., ... Ulmer, S. (2019). Direct limits on the interaction of antiprotons with axion-like dark matter. *Nature*, 575(7782), 310–314. doi:10.1038/s41586-019-1727-9

Soja, R. H., Grün, E., Strub, P., Sommer, M., Millinger, M., Vaubaillon, J., ... Srama, R. (2019). IMEM2: a meteoroid environment model for the inner solar system. *Astronomy and Astrophysics*, 628, A109. doi:10.1051/0004-6361/201834892

Stefanik, S., Nosek, D., De los Reyes, R., Gaug, M., & Travnicek, P. (2019). Atmospheric monitoring and inter-calibration of the telescope optical throughput efficiencies using the trigger rates of the Cherenkov Telescope Array. *Astroparticle Physics*, 109, 12–24. doi:10.1016/j.astropartphys.2019.02.002

Stooß, V., Hartmann, M., Birk, P., Borisova, G. D., Ding, T., Blättermann, A., ... Pfeifer, T. (2019). XUV-beamline for attosecond transient absorption measurements featuring a broadband common beam-path time-delay unit and in situ reference spectrometer for high stability and sensitivity. *Review of Scientific Instruments*, 90(5), 053108. doi:10.1063/1.5091069

Strub, P., Sterken, V. J., Soja, R., Krueger, H., Grün, E., & Srama, R. (2019). Heliospheric modulation of the interstellar dust flow on to Earth. *Astronomy and Astrophysics*, 621, A54. doi:10.1051/0004-6361/201832644

Sturm, S., Arapoglou, I., Egl, A., Höcker, M., Kraemer, S., Sailer, T., ... Blaum, K. (2019). The ALPHA-

TRAP experiment. European Physical Journal - Special Topics, 227(13), 1425–1491. doi:10.1140/epjst/e2018-800225-2

Sun, X.-N., Yang, R., Liu, B., Xi, S.-Q., & Wang, X.-Y. (2019). Tentative evidence of spatially extended GeV emission from SS433/W50. *Astronomy and Astrophysics*, 626, A113. doi:10.1051/0004-6361/201935621

Tang, S., & Kumar, N. (2019). Ultraintense attosecond pulse emission from relativistic laser-plasma interaction. *Plasma Physics and Controlled Fusion*, 61, 025013. doi:10.1088/1361-6587/aaf378

Taniuchi, R., Santamaria, C., Doornenbal, P., Obertelli, A., Yoneda, K., Authelet, G., ... Xu, Z. Y. (2019). ^{78}Ni revealed as a doubly magic stronghold against nuclear deformation. *Nature*, 569(7754), 52–+. doi:10.1038/s41586-019-1155-x

XENON1T Collaboration, Aprile, E., Alfonsi, M., Arisaka, K., Arneodo, F., Balan, C., Baudis, L., ... Weinheimer, C. (2019). The XENON1T data acquisition system. *Journal of Instrumentation*, 14, P07016. doi:10.1088/1748-0221/14/07/P07016

XENON1T Collaboration, Aprile, E., Alfonsi, M., Arisaka, K., Arneodo, F., Balan, C., Baudis, L., ... Weinheimer, C. (2019). XENON1T dark matter data analysis: Signal and background models and statistical inference. *Physical Review D*, 99(11), 112009. doi:10.1103/PhysRevD.99.112009

XENON1T Collaboration, Aprile, E., Alfonsi, M., Arisaka, K., Arneodo, F., Balan, C., Baudis, L., ... Weinheimer, C. (2019). Constraining the Spin-Dependent WIMP-Nucleon Cross Sections with XENON1T. *Physical Review Letters*, 122(14), 141301. doi:10.1103/PhysRevLett.122.141301

XENON1T Collaboration, Aprile, E., Alfonsi, M., Arisaka, K., Arneodo, F., Balan, C., Baudis, L., ... Weinheimer, C. (2019). XENON1T dark matter data analysis: Signal reconstruction, calibration, and event selection. *Physical Review D*, 100(5), 052014. doi:10.1103/PhysRevD.100.052014

XENON1T Collaboration, Aprile, E., Alfonsi, M., Arisaka, K., Arneodo, F., Balan, C., Baudis, L., ... Weinheimer, C. (2019). Observation of two-neutrino double electron capture in ^{124}Xe with XENON1T. *Nature*, 568(7753), 532–535. doi:10.1038/s41586-019-1124-4

Trautner, A. (2019). Systematic construction of basis invariants in the 2HDM. *Journal of High Energy Physics : JHEP*, 2019(5), 208. doi:10.1007/JHEP05(2019)208

Tsuji, N., Uchiyama, Y., Aharonian, F., Berge, D., Higurashi, R., Krivonos, R., & Tanaka, T. (2019). NuSTAR Observations of the Supernova Remnant RX J1713.7-3946. *Astrophysical Journal*, 877(2), 96. doi:10.3847/1538-4357/ab1b29

Ueda, K., Sokell, E., Schippers, S., Aumayr, F., Sadeghpour, H., Burgdörfer, J., ... Tanaka, K. A. (2019). Roadmap on photonic, electronic and atomic collision physics: I. Light-matter interaction. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 52, 171001. doi:10.1088/1361-6455/ab26d7

Velte, C., Ahrens, F., Barth, A., Blaum, K., Braß, M., Door, M., ... Zuber, K. (2019). High-resolution and low-background ^{163}Ho spectrum:interpretation of the resonance tails. *European Physical Journal C*, 79, 1026. doi:10.1140/epjc/s10052-019-7513-x

Viana, A., Schoorlemmer, H., Albert, A., de Souza, V., Harding, J. P., & Hinton, J. (2019). Searching for dark matter in the Galactic halo with a wide field of view TeV gamma-ray observatory in the Southern Hemisphere. *Journal of Cosmology and Astroparticle Physics*, 12, 061. doi:10.1088/1475-7516/2019/12/061

Voisin, F. J., Rowell, G. P., Burton, M. G., Fukui, Y., Sano, H., Aharonian, F., ... Lau, J. (2019). Connecting

the ISM to TeV PWNe and PWN candidates. *Publications of the Astronomical Society of Australia*, 36, e014. doi:10.1017/pasa.2019.7

Wan, F., Shaisultanov, R., Li, Y.-F., Hatsagortsyan, K. Z., Keitel, C. H., & Li, J.-X. (2019). Ultrarelativistic polarized positron jets via collision of electron and ultraintense laser beams. *Physics Letters B*, 800, 135120. doi:10.1016/j.physletb.2019.135120

Wan, F., Xue, K., Dou, Z.-K., Hatsagortsyan, K. Z., Yan, W., Khikhlukha, D., ... Li, J.-X. (2019). Imprint of the stochastic nature of photon emission by electrons on the proton energy spectra in the laser-plasma interaction. *Plasma Physics and Controlled Fusion*, 61, 084010. doi:10.1088/1361-6587/ab2b2c

Wang, E., Shan, X., Shen, Z., Cong, M., Tang, Y., & Chen, X. (2019). Fragmentation dynamics of nitrogen trifluoride induced by electron collision. *The Journal of Chemical Physics*, 151(13), 134308. doi:10.1063/1.5123288

Watts, A. L., Yu, W., Poutanen, J., Zhang, S., Bhattacharyya, S., Bogdanov, S., ... Zhou, X. (2019). Dense matter with eXTP. *Science China - Physics, Mechanics & Astronomy*, 62, 29503. doi:10.1007/s11433-017-9188-4

Wen, M., Salamin, Y. I., & Keitel, C. H. (2019). Electron acceleration by a radially-polarized laser pulse in a plasma micro-channel : erratum . *Optics Express*, 27(13), 18958–18958. doi:10.1364/OE.27.018958

Wen, M., Salamin, Y. I., & Keitel, C. H. (2019). Electron acceleration by a radially-polarized laser pulse in a plasma micro-channel. *Optics Express*, 27(2), 557–566. doi:10.1364/OE.27.000557

Wen, M., Tamburini, M., & Keitel, C. H. (2019). Polarized Laser-WakeField-Accelerated Kiloampere Electron Beams. *Physical Review Letters*, 122(21), 214801. doi:10.1103/PhysRevLett.122.214801

White, T.-G., Oliver, M.-T., Mabey, P., Kühn-Kauffeldt, M., Bott, A.-F.-A., Döhl, L.-N.-K., ... Gregori, G. (2019). Supersonic plasma turbulence in the laboratory. *Nature Communications*, 10, 1758. doi:10.1038/s41467-019-09498-y

Willenberg , B., Maurer, J., Keller, U., Daněk, J., Klaiber, M., Teeny, N., ... Keitel, C. H. (2019). Holographic interferences in strong-field ionization beyond the dipole approximation: The influence of the peak and focal-volume-averaged laser intensities. *Physical Review A*, 100(3), 033417. doi:10.1103/PhysRevA.100.033417

Wistisen, T. N., & Di Piazza, A. (2019). Numerical approach to the semiclassical method of radiation emission for arbitrary electron spin and photon polarization. *Physical Review D*, 100(11), 116001. doi:10.1103/PhysRevD.100.116001

Wistisen, T. N., Di Piazza, A., Nielsen, C. F., Sørensen, A. H., & Uggerhøj, U. I. (2019). Quantum radiation reaction in aligned crystals beyond the local constant field approximation. *Physical Review Research*, 1(3), 033014. doi:10.1103/PhysRevResearch.1.033014

Wistisen, T. N. (2019). Investigation of two-photon emission in strong field QED using channeling in a crystal. *Physical Review D*, 100(3), 036002. doi:10.1103/PhysRevD.100.036002

Wistisen, T. N., & Di Piazza, A. (2019). Complete treatment of single-photon emission in planar channeling. *Physical Review D*, 99(11), 116010. doi:10.1103/PhysRevD.99.116010

Wu, P. (2019). Chromospheric UV bursts and turbulent driven magnetic reconnection. *Astrophysical Journal*, 885(2), 158. doi:10.3847/1538-4357/ab4a06

Wu, Y., Keitel, C. H., & Pálffy, A. (2019). 93mMo Isomer Depletion via Beam-Based Nuclear Excitation by Electron Capture. *Physical Review Letters*, 122(21), 212501. doi:10.1103/PhysRevLett.122.212501

Wu, Y., Keitel, C. H., & Pálffy, A. (2019). X-ray-assisted nuclear excitation by electron capture in optical laser-generated plasmas. *Physical Review A*, 100(6), 063420. doi:10.1103/PhysRevA.100.063420

Xie, L., Yang, X. F., Wraith, C., Babcock, C., Bieroń, J., Billowes, J., ... Yordanov, D. T. (2019). Nuclear charge radii of $^{62-80}\text{Zn}$ and their dependence on cross-shell proton excitations. *Physics Letters B*, 797, 134805. doi:10.1016/j.physletb.2019.134805

Xu, S., Ma, C., Wang, E., Hu, P., Wang, X., Zhao, Y., ... Ren, X. (2019). Observation of strong relativistic and distorted-wave effects in (e,2e) electron-momentum spectroscopy of mercury. *Physical Review A*, 99(2), 022705. doi:10.1103/PhysRevA.99.022705

Xu, X., Liu, J. H., Yuan, C. X., Xing, Y. M., Wang, M., Zhang, Y. H., ... Xu, F. R. (2019). Masses of ground and isomeric states of ^{101}In and configuration-dependent shell evolution in odd-A indium isotopes. *Physical Review C*, 100(05), 051303(R). doi:10.1103/PhysRevC.100.051303

Xu, X., Wang, M., Blaum, K., Holt, J. D., Litvinov, Y. A., Schwenk, A., ... Zhan, W. L. (2019). Masses of neutron-rich $^{52-54}\text{Sc}$ and $^{54,56}\text{Ti}$ nuclides: The N=32 subshell closure in scandium. *Physical Review C*, 99(6), 064303. doi:10.1103/PhysRevC.99.064303

Xu, X. (2019). Tensor and scalar interactions of neutrinos may lead to observable neutrino magnetic moments. *Physical Review D*, 99(7), 075003. doi:10.1103/PhysRevD.99.075003

Xu, Z., Hu, P., Wang, E., Xu, S., Wang, X., Zhao, Y., ... Ren, X. (2019). Experimental and theoretical study of valence electronic structure of tetrabromomethane by (e, 2e) electron momentum spectroscopy. *Physical Review A*, 99(6), 062705. doi:10.1103/PhysRevA.99.062705

Yang, R., & Aharonian, F. (2019). Interpretation of the excess of antiparticles within a modified paradigm of galactic cosmic rays. *Physical Review D*, 100(6), 063020. doi:10.1103/PhysRevD.100.063020

Yordanov, D. T., Kowalska, M., Blaum, K., De Rydt, M., Flanagan, K. T., Himpe, P., ... Stroke, H. (2019). Quadrupole Moments of ^{29}Mg and ^{33}Mg . *Hyperfine Interactions*, 240, 67. doi:10.1007/s10751-019-1609-4

Yue, K., Zhang, J. T., Tu, X. L., Shao, C. J., Li, H. X., Ma, P., ... Zhou, X. H. (2019). Measurement of $^{58}\text{Ni}(\text{p},\text{p})^{58}\text{Ni}$ elastic scattering at low momentum transfer by using the HIRFL-CSR heavy-ion storage ring. *Physical Review C*, 100(5), 054609. doi:10.1103/PhysRevC.100.054609

Zhang, J. T., Yue, K., Lie, H. X., Tu, X. L., Shao, C. J., Ma, P., ... Zhou, X. H. (2019). The development of in-ring reaction measurements at the HIRFL-CSR. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 948, UNSP 162848. doi:10.1016/j.nima.2019.162848

Zorn, J. (2019). CHEC-A compact high energy camera for the Cherenkov Telescope Array. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 936, 229–230. doi:10.1016/j.nima.2018.09.138

Zorn, J., Daumiller, K., Engel, R., Mathes, H.-J., Riegel, M., Smida, R., & Werner, F. (2019). A photomultiplier tube test stand and on-site measurements to characterise the performance of Photonis XP3062 photomultiplier tubes at increased background light conditions and lower gain. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 938, 20–28. doi:10.1016/j.nima.2019.05.065

Zurlo, N., Aghion, S., Amsler, C., Antonello, M., Belov, A., Bonomi, G., ... Zmeskal, J. (2019). Monte-Carlo simulation of positronium laser excitation and anti-hydrogen formation via charge exchange. *Hyperfine Interactions*, 240, 18. doi:10.1007/s10751-019-1553-3

Conference Papers 2019

Boisson, C., Ruiz , J. E., Deil, C., Donath, A., & Khelifi , B. (2019). Versioned Executable User Documentation for In -development Science Tools. In *Astronomical Data Analysis Software and Systems XXVIII* (pp. 357–360).

Dembinski, H. P., Arteaga-Velázquez, J. C., Cazon, L., Conceição, R., Gonzalez, J., Itow, Y., ... Zhezher, Y. (2019). Report on Tests and Measurements of Hadronic Interaction Properties with Air Showers. In *EPJ Web of Conferences* (Vol. 210). Les Ulis: EDP Sciences. doi:10.1051/epjconf/201921002004

Dembinski, H. P., Nellen, L., Reininghaus, M., & Ulrich, R. (2019). Technical Foundations of CORSIKA 8: New Concepts for Scientific Computing. In *Proceedings of Science* (Vol. 358).

Dembinski, H. P., Ulrich, R., & Pierog, T. (2019). Future Proton-Oxygen Beam Collisions at the LHC for Air Shower Physics. In *Proceedings of Science* (Vol. 358).

Dwarkadas, V., Marcowith, A., Renaud, M., Tatischeff, V., & Giacinti, G. (2019). Core-collapse Supernovae as Cosmic Ray Sources. In *Proceedings of Science* (Vol. ICRC2019). Madison, Wisconsin,.

Giacinti, G. (2019). Cosmic-Ray Diffusion and Galactic Magnetic Field Models. In *Proceedings of Science* (Vol. ICRC2019). Madison, Wisconsin, USA.

Giacinti, G., Dwarkadas, V., Marcowith, A., & Chiavassa, A. (2019). Numerical Simulations of Cosmic-Ray Acceleration at Core-Collapse Supernovae. In *Proceedings of Science* (Vol. ICRC2019). Madison, Wisconsin.

Giacinti, G., & Lopez Coto, R. (2019). Constraining the Properties of the Interstellar Turbulence around Geminga using HAWC Measurements. In *Proceedings of Science* (Vol. ICRC2019). Madison, Wisconsin.

Giacinti, G., & Kirk, J. G. (2019). Electron Acceleration in the Crab Nebula. In *Proceedings of the “SF2A 2019”*. Jardin-Blicq, A., Marandon, V., & Brun, F. (2019). A complementary view of the Galactic plane in TeV gamma rays by HAWC and H.E.S.S. In *Proceedings of Science* (Vol. ICRC2019). Retrieved from

Joshi, V., & Schoorlemmer, H. (2019). Air shower reconstruction using HAWC and the Outrigger array. In for the HAWC Collaboration (Ed.), *Proceedings of Science* (Vol. ICRC 2019).

López-Coto, R.-, Parsons, R. D., Hinton, J. A., & Giacinti, G. (2019). An undiscovered pulsar in the Local Bubble as an explanation of the local high energy cosmic ray electron spectrum. In *Proceedings of Science* (Vol. ICRC2019).

Mackenroth, F., Kumar, N., Di Piazza, A., Tamburini, M., Neitz, N., & Keitel, C. H. (2019). Nonlinear quantum electrodynamics in ultra-high intensity laser-plasma interactions. In *Proceedings of SPIE* (Vol. 11039). Bellingham, Washington: SPIE. doi:10.1117/12.2525369

Marandon, V., Jardin-Blicq, A., & Schoorlemmer, H. (2019). Latest news from the HAWC outrigger array. In *Proceedings of Science* (Vol. ICRC2019). Retrieved from <http://hdl.handle.net/21.11116/0000-0005-673D-4>

Mitchell, A., Dembinski, H. P., & Parsons, R. D. (2019). Using IACTs to Measure the Profiles of Muons in TeV Air Showers. In Proceedings of Science (Vol. 358).

Oelmann, J.-H., Nauta, J., Ackermann, A., Knauer, P., Pappenberger, R., Kühn, S., ... Crespo López-Urrutia, J. R. (2019). Development of an XUV Frequency Comb for Precision Spectroscopy of Highly Charged Ions. In Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC). doi:10.1109/CLEOE-EQEC.2019.8872682

Pierog, T., Baur, S., Dembinski, H. P., Ulrich, R., & Werner, K. (2019). Collective Hadronization and Air Showers: Can LHC Data Solve the Muon Puzzle ? In Proceedings of Science (Vol. 358).

Books and Book Chapters 2019

Bühler , R., Dravins, D., Egberts, K., Hinton, J. A., & Parsons, R. D. (2019). Capabilities beyond Gamma Rays . In Science with the Cherenkov Telescope Array (pp. 291–298). Singapore: World Scientific. doi:10.1142/9789813270091_0014

CTA Collaboration, & Hinton, J. A. (Eds.). (2019). Science with the Cherenkov Telescope Array. Singapore: World Scientific.

Dorn, A. (2019). Electron Impact Spectroscopy. In Radiation in Bioanalysis (pp. 313–326). Cham: Springer.

Hinton, J. A., Ong, R. A., & Torres, D. (2019). Introduction to CTA Science. In Science with the Cherenkov Telescope Array (pp. 1–25). Singapore: World Scientific. doi:10.1142/9789813270091_0001

Hinton, J. A., Ong, R. A., & Torres, D. (2019). Core Programme Overview . In Science with the Cherenkov Telescope Array (pp. 41–43). Singapore: World Scientific. doi:10.1142/9789813270091_0003