

Federico Di Pierro

List of Publications by Year in descending order

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Version: 2024-02-01

119
papers

3,754
citations

218592

26
h-index

128225

60
g-index

120
all docs

120
docs citations

120
times ranked

2456
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Design concepts for the Cherenkov Telescope Array CTA: an advanced facility for ground-based high-energy gamma-ray astronomy. <i>Experimental Astronomy</i> , 2011, 32, 193-316. | 1.6 | 640 |
| 2 | Introducing the CTA concept. <i>Astroparticle Physics</i> , 2013, 43, 3-18. | 1.9 | 504 |
| 3 | Detection and imaging of atmospheric radio flashes from cosmic ray air showers. <i>Nature</i> , 2005, 435, 313-316. | 13.7 | 297 |
| 4 | Monte Carlo design studies for the Cherenkov Telescope Array. <i>Astroparticle Physics</i> , 2013, 43, 171-188. | 1.9 | 176 |
| 5 | Kneelike Structure in the Spectrum of the Heavy Component of Cosmic Rays Observed with KASCADE-Grande. <i>Physical Review Letters</i> , 2011, 107, 171104. | 2.9 | 163 |
| 6 | KASCADE-Grande measurements of energy spectra for elemental groups of cosmic rays. <i>Astroparticle Physics</i> , 2013, 47, 54-66. | 1.9 | 163 |
| 7 | The spectrum of high-energy cosmic rays measured with KASCADE-Grande. <i>Astroparticle Physics</i> , 2012, 36, 183-194. | 1.9 | 148 |
| 8 | The KASCADE-Grande experiment. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 620, 202-216. | 0.7 | 147 |
| 9 | The Blazar TXS 0506+056 Associated with a High-energy Neutrino: Insights into Extragalactic Jets and Cosmic-Ray Acceleration. <i>Astrophysical Journal Letters</i> , 2018, 863, L10. | 3.0 | 141 |
| 10 | Ankle-like feature in the energy spectrum of light elements of cosmic rays observed with KASCADE-Grande. <i>Physical Review D</i> , 2013, 87, . | 1.6 | 96 |
| 11 | Lateral distribution of the radio signal in extensive air showers measured with LOPES. <i>Astroparticle Physics</i> , 2010, 32, 294-303. | 1.9 | 72 |
| 12 | Reconstruction of the energy and depth of maximum of cosmic-ray air showers from LOPES radio measurements. <i>Physical Review D</i> , 2014, 90, . | 1.6 | 57 |
| 13 | KASCADE-Grande Limits on the Isotropic Diffuse Gamma-Ray Flux between 100 TeV and 1 EeV. <i>Astrophysical Journal</i> , 2017, 848, 1. | 1.6 | 57 |
| 14 | FIRST <i>></i> NuSTAR <i></i> OBSERVATIONS OF MRK 501 WITHIN A RADIO TO TeV MULTI-INSTRUMENT CAMPAIGN. <i>Astrophysical Journal</i>, 2015, 812, 65.</i> | 1.6 | 49 |
| 15 | Amplified radio emission from cosmic ray air showers in thunderstorms. <i>Astronomy and Astrophysics</i> , 2007, 467, 385-394. | 2.1 | 43 |
| 16 | Experimental evidence for the sensitivity of the air-shower radio signal to the longitudinal shower development. <i>Physical Review D</i> , 2012, 85, . | 1.6 | 43 |
| 17 | The wavefront of the radio signal emitted by cosmic ray air showers. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 025-025. | 1.9 | 42 |
| 18 | Probing the evolution of the EAS muon content in the atmosphere with KASCADE-Grande. <i>Astroparticle Physics</i> , 2017, 95, 25-43. | 1.9 | 42 |

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|----|--|-----|-----------|
| 19 | The KASCADE-Grande energy spectrum of cosmic rays and the role of hadronic interaction models. <i>Advances in Space Research</i> , 2014, 53, 1456-1469. | 1.2 | 40 |
| 20 | New Hard-TeV Extreme Blazars Detected with the MAGIC Telescopes*. <i>Astrophysical Journal, Supplement Series</i> , 2020, 247, 16. | 3.0 | 39 |
| 21 | Progress in air shower radio measurements: Detection of distant events. <i>Astroparticle Physics</i> , 2006, 26, 332-340. | 1.9 | 38 |
| 22 | MAGIC Observations of the Nearby Short Gamma-Ray Burst GRB 160821B [*] . <i>Astrophysical Journal</i> , 2021, 908, 90. | 1.6 | 38 |
| 23 | First Experimental Characterization of Microwave Emission from Cosmic Ray Air Showers. <i>Physical Review Letters</i> , 2014, 113, 221101. | 2.9 | 33 |
| 24 | A comparison of the cosmic-ray energy scales of Tunka-133 and KASCADE-Grande via their radio extensions Tunka-Rex and LOPES. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016, 763, 179-185. | 1.5 | 32 |
| 25 | Frequency spectra of cosmic ray air shower radio emission measured with LOPES. <i>Astronomy and Astrophysics</i> , 2008, 488, 807-817. | 2.1 | 27 |
| 26 | Muon production height studies with the air shower experiment KASCADE-Grande. <i>Astroparticle Physics</i> , 2011, 34, 476-485. | 1.9 | 27 |
| 27 | Improved absolute calibration of LOPES measurements and its impact on the comparison with REAS 3.11 and CoREAS simulations. <i>Astroparticle Physics</i> , 2016, 75, 72-74. | 1.9 | 27 |
| 28 | Constraints on Gamma-Ray and Neutrino Emission from NGC 1068 with the MAGIC Telescopes. <i>Astrophysical Journal</i> , 2019, 883, 135. | 1.6 | 27 |
| 29 | MAGIC detection of short-term variability of the high-peaked BL Lac object 1ES 0806+524. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 451, 739-750. | 1.6 | 25 |
| 30 | Unraveling the Complex Behavior of Mrk 421 with Simultaneous X-Ray and VHE Observations during an Extreme Flaring Activity in 2013 April [*] . <i>Astrophysical Journal, Supplement Series</i> , 2020, 248, 29. | 3.0 | 25 |
| 31 | Proton acceleration in thermonuclear nova explosions revealed by gamma rays. <i>Nature Astronomy</i> , 2022, 6, 689-697. | 4.2 | 25 |
| 32 | The KASCADE Cosmic-ray Data Centre KCDC: granting open access to astroparticle physics research data. <i>European Physical Journal C</i> , 2018, 78, 1. | 1.4 | 22 |
| 33 | A test of the hadronic interaction model EPOS with air shower data. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2009, 36, 035201. | 1.4 | 21 |
| 34 | Very high-energy γ -ray observations of novae and dwarf novae with the MAGIC telescopes. <i>Astronomy and Astrophysics</i> , 2015, 582, A67. | 2.1 | 21 |
| 35 | Combined searches for dark matter in dwarf spheroidal galaxies observed with the MAGIC telescopes, including new data from Coma Berenices and Draco. <i>Physics of the Dark Universe</i> , 2022, 35, 100912. | 1.8 | 21 |
| 36 | Direction identification in radio images of cosmic-ray air showers detected with LOPES and KASCADE. <i>Astronomy and Astrophysics</i> , 2008, 487, 781-788. | 2.1 | 19 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Radio emission of highly inclined cosmic ray air showers measured with LOPES. <i>Astronomy and Astrophysics</i> , 2007, 462, 389-395. | 2.1 | 17 |
| 38 | Thunderstorm observations by air-shower radio antenna arrays. <i>Advances in Space Research</i> , 2011, 48, 1295-1303. Lateral distributions of EAS muons ($\langle r^2 \rangle$) vs. r . <i>Astroparticle Physics</i> , 2015, 65, 55-63. | 1.2 | 17 |
| 39 | | 1.9 | 17 |
| 40 | LOPES-3D: An antenna array for full signal detection of air-shower radio emission. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012, 696, 100-109. | 0.7 | 15 |
| 41 | Comparing LOPES measurements of air-shower radio emission with REAS 3.11 and CoREAS simulations. <i>Astroparticle Physics</i> , 2013, 50-52, 76-91. | 1.9 | 15 |
| 42 | RADIO DETECTION OF COSMIC RAYS WITH LOPES. <i>International Journal of Modern Physics A</i> , 2006, 21, 168-181. | 0.5 | 13 |
| 43 | The cosmic ray energy spectrum in the range 10^{16} – 10^{18} eV measured by KASCADE-Grande. <i>Astrophysics and Space Sciences Transactions</i> , 2011, 7, 229-234. | 1.0 | 13 |
| 44 | Multiwavelength variability and correlation studies of Mrk 421 during historically low X-ray and γ -ray activity in 2015–2016. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , . | 1.6 | 13 |
| 45 | Search for Large-scale Anisotropy in the Arrival Direction of Cosmic Rays with KASCADE-Grande. <i>Astrophysical Journal</i> , 2019, 870, 91. | 1.6 | 12 |
| 46 | Final results of the LOPES radio interferometer for cosmic-ray air showers. <i>European Physical Journal C</i> , 2021, 81, 1. | 1.4 | 12 |
| 47 | ADVANCED DETECTION METHODS OF RADIO SIGNALS FROM COSMIC RAYS FOR KASCADE GRANDE AND AUGER. <i>International Journal of Modern Physics A</i> , 2006, 21, 242-246. | 0.5 | 11 |
| 48 | VHE gamma-ray detection of FSRQ QSO B1420+326 and modeling of its enhanced broadband state in 2020. <i>Astronomy and Astrophysics</i> , 2021, 647, A163. | 2.1 | 11 |
| 49 | Investigating the Blazar TXS 0506+056 through Sharp Multiwavelength Eyes During 2017–2019. <i>Astrophysical Journal</i> , 2022, 927, 197. | 1.6 | 11 |
| 50 | A limit on the diffuse gamma-rays measured with KASCADE-Grande. <i>Journal of Physics: Conference Series</i> , 2015, 632, 012013. | 0.3 | 10 |
| 51 | Observation of the Gamma-Ray Binary HESS J0632+057 with the H.E.S.S., MAGIC, and VERITAS Telescopes. <i>Astrophysical Journal</i> , 2021, 923, 241. | 1.6 | 10 |
| 52 | KASCADE-Grande: An overview and first results. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 588, 162-165. | 0.7 | 9 |
| 53 | Time structure of the EAS electron and muon components measured by the KASCADE-Grande experiment. <i>Astroparticle Physics</i> , 2008, 29, 317-330. | 1.9 | 9 |
| 54 | Air shower measurements with the LOPES radio antenna array. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 604, S1-S8. | 0.7 | 8 |

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| 55 | Cosmic ray measurements with LOPES: Status and recent results. , 2013, , . | | 8 |
| 56 | The KASCADE-Grande Experiment and the LOPES Project. Nuclear Physics, Section B, Proceedings Supplements, 2004, 136, 384-389. | 0.5 | 7 |
| 57 | Radio emission of energetic cosmic ray air showers: Polarization measurements with LOPES. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, S81-S84. | 0.7 | 7 |
| 58 | The cosmic ray spectrum and composition measured by KASCADE-Grande between 1016 eV and 1018 eV. Nuclear Physics, Section B, Proceedings Supplements, 2014, 256-257, 149-160. | 0.5 | 7 |
| 59 | The Cherenkov Telescope Array potential for the study of young supernova remnants. Astroparticle Physics, 2015, 62, 152-164. | 1.9 | 7 |
| 60 | Status of the KASCADE-Grande experiment. Nuclear Physics, Section B, Proceedings Supplements, 2008, 175-176, 273-279. | 0.5 | 6 |
| 61 | Analysis of inclined showers measured with LOPES. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, S9-S12. | 0.7 | 6 |
| 62 | The Constant Intensity Cut Method applied to the KASCADE-Grande muon data. Nuclear Physics, Section B, Proceedings Supplements, 2009, 196, 183-186. | 0.5 | 6 |
| 63 | Reconstructing energy and Xmax of cosmic ray air showers using the radio lateral distribution measured with LOPES. AIP Conference Proceedings, 2013, , . | 0.3 | 6 |
| 64 | The Air-Shower Experiment KASCADE-Grande. Nuclear Physics, Section B, Proceedings Supplements, 2009, 196, 80-85. | 0.5 | 5 |
| 65 | Radio emission of highly inclined cosmic ray air showers measured with LOPES - possibility for neutrino detection. Journal of Physics: Conference Series, 2006, 39, 471-474. | 0.3 | 4 |
| 66 | Investigations of Muons in EAS with KASCADE-Grande. Nuclear Physics, Section B, Proceedings Supplements, 2008, 175-176, 354-357. | 0.5 | 4 |
| 67 | Measuring the radio emission of cosmic ray air showers with LOPES. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 617, 515-516. | 0.7 | 4 |
| 68 | Comparison of LOPES measurements with CoREAS and REAS 3.11 simulations. , 2013, , . | | 4 |
| 69 | Studies of the cosmic ray spectrum and large scale anisotropies with the KASCADE-Grande experiment. Journal of Physics: Conference Series, 2014, 531, 012001. | 0.3 | 4 |
| 70 | Multiwavelength Observations of the Blazar VER J0521+211 during an Elevated TeV Gamma-Ray State. Astrophysical Journal, 2022, 932, 129. | 1.6 | 4 |
| 71 | Results from the KASCADE, KASCADE-Grande, and LOPES experiments. Journal of Physics: Conference Series, 2006, 39, 463-470. | 0.3 | 3 |
| 72 | Radio Emission in Atmospheric Air Showers: Results of LOPES-10. Journal of Physics: Conference Series, 2007, 81, 012005. | 0.3 | 3 |

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| 73 | Measurement of radio emission from extensive air showers with LOPES. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 630, 171-176. | 0.7 | 3 |
| 74 | All-particle energy spectrum of KASCADE-Grande based on shower size and different hadronic interaction models. Journal of Physics: Conference Series, 2013, 409, 012101. | 0.3 | 3 |
| 75 | Test of hadronic interaction models with the KASCADE-Grande muon data. EPJ Web of Conferences, 2013, 52, 07002. | 0.1 | 3 |
| 76 | LOPES " Recent Results and Open Questions on the Radio Detection of Air Showers. Journal of Physics: Conference Series, 2015, 632, 012102. | 0.3 | 3 |
| 77 | Summary of the main results of the KASCADE and KASCADE-Grande experiments. EPJ Web of Conferences, 2019, 208, 03002. | 0.1 | 3 |
| 78 | A FADC-based data acquisition system for the KASCADE-grande experiment. IEEE Transactions on Nuclear Science, 2006, 53, 265-269. | 1.2 | 2 |
| 79 | ABSOLUTE CALIBRATION OF THE LOPES ANTENNA SYSTEM. International Journal of Modern Physics A, 2006, 21, 187-191. | 0.5 | 2 |
| 80 | Radio detection of cosmic ray air showers with LOPES. Nuclear Physics, Section B, Proceedings Supplements, 2007, 165, 341-348. | 0.5 | 2 |
| 81 | Recent results of the LOPES experiment. Nuclear Physics, Section B, Proceedings Supplements, 2009, 196, 297-300. | 0.5 | 2 |
| 82 | Latest results and perspectives of the KASCADE-Grande EAS Facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 662, S150-S156. | 0.7 | 2 |
| 83 | Radio Measurements of Air Showers with LOPES. Journal of Physics: Conference Series, 2013, 409, 012075. | 0.3 | 2 |
| 84 | Separation of the light and heavy mass groups of 10^{16} - 10^{18} eV cosmic rays by studying the ratio muon size to shower size of KASCADE-Grande data. Journal of Physics: Conference Series, 2013, 409, 012095. | 0.3 | 2 |
| 85 | Latest results from the KASCADE-Grande experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 742, 10-15. | 0.7 | 2 |
| 86 | KCDC " The KASCADE Cosmic-ray Data Centre. Journal of Physics: Conference Series, 2015, 632, 012011. | 0.3 | 2 |
| 87 | Interferometric Radio Measurements of Air Showers with LOPES: Final Results. , 2017, , . | | 2 |
| 88 | Search for Very High-energy Emission from the Millisecond Pulsar PSR J0218+4232. Astrophysical Journal, 2021, 922, 251. | 1.6 | 2 |
| 89 | On the influence of cross sections and elasticities of hadronic interactions on air shower observables. Nuclear Physics, Section B, Proceedings Supplements, 2006, 151, 205-208. | 0.5 | 1 |
| 90 | Tests of hadronic interaction models by data of the KASCADE-Grande air-shower experiment. European Physical Journal D, 2006, 56, A241-A259. | 0.4 | 1 |

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| 91 | COMBINED LOPES AND KASCADE-GRANDE DATA ANALYSIS. International Journal of Modern Physics A, 2006, 21, 182-186. | 0.5 | 1 |
| 92 | Status of the KASCADE-Grande experiment. Nuclear Physics, Section B, Proceedings Supplements, 2007, 165, 289-293. | 0.5 | 1 |
| 93 | Detecting radio pulses from air showers. , 2008, , . | | 1 |
| 94 | Recent Results from KASCADE-Grande and LOPES. Nuclear Physics, Section B, Proceedings Supplements, 2009, 190, 213-222. | 0.5 | 1 |
| 95 | Test of the hadronic interaction model EPOS with KASCADE air shower data. Nuclear Physics, Section B, Proceedings Supplements, 2009, 196, 235-238. | 0.5 | 1 |
| 96 | Primary Energy Reconstruction from the Charged Particle Densities Recorded with the KASCADE-Grande Detector at 500 m Distance from Shower Core. , 2010, , . | | 1 |
| 97 | Investigation of the properties of galactic cosmic rays with the KASCADE-Grande experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 630, 222-225. | 0.7 | 1 |
| 98 | Results from KASCADE-Grande. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 692, 217-223. | 0.7 | 1 |
| 99 | KASCADE-Grande observation of features in the cosmic ray spectrum between knee and ankle. Journal of Physics: Conference Series, 2013, 409, 012005. | 0.3 | 1 |
| 100 | On a coherent investigation of the spectrum of cosmic rays in the energy range of 10^{14} – 10^{18} eV with KASCADE and KASCADE-Grande. Journal of Physics: Conference Series, 2015, 632, 012025. | 0.3 | 1 |
| 101 | The longitudinal development of showers induced by high-energy hadrons in an iron-sampling calorimeter. Nuclear Physics, Section B, Proceedings Supplements, 2006, 151, 325-328. | 0.5 | 0 |
| 102 | Results and status of KASCADE-Grande. AIP Conference Proceedings, 2006, , . | 0.3 | 0 |
| 103 | The knee of cosmic rays – news from KASCADE. AIP Conference Proceedings, 2007, , . | 0.3 | 0 |
| 104 | Radio Emission in Atmospheric Air Showers: First Measurements with LOPES-30. Journal of Physics: Conference Series, 2007, 81, 012006. | 0.3 | 0 |
| 105 | Cosmic Ray Air Shower Detection with LOPES. Nuclear Physics, Section B, Proceedings Supplements, 2008, 175-176, 227-232. | 0.5 | 0 |
| 106 | The KASCADE-Grande Experiment. , 2009, , . | | 0 |
| 107 | Investigation of the S(500) distribution for large air showers detected with the KASCADE-Grande array. Nuclear Physics, Section B, Proceedings Supplements, 2009, 196, 247-250. | 0.5 | 0 |
| 108 | Muon Production Height investigated by the Air-Shower Experiment KASCADE-Grande. Nuclear Physics, Section B, Proceedings Supplements, 2009, 196, 305-308. | 0.5 | 0 |

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| 109 | Hadronic interactions and EAS muon pseudorapidities investigated with the Muon Tracking Detector in KASCADE-Grande. Nuclear Physics, Section B, Proceedings Supplements, 2009, 196, 114-117. | 0.5 | 0 |
| 110 | Primary Energy Spectrum as Reconstructed from S(500) Measurements by KASCADE-Grande. , 2010, , . | | 0 |
| 111 | Restoring The Azimuthal Symmetry Of Charged Particle Lateral Density In The Range Of KASCADE-Grande. , 2010, , . | | 0 |
| 112 | The measurement of the cosmic ray primary energy spectrum at 10^{16} – 10^{18} eV with the KASCADE-Grande experiment. Nuclear Physics, Section B, Proceedings Supplements, 2011, 212-213, 68-73. | 0.5 | 0 |
| 113 | Primary energy reconstruction from the charged particle densities recorded at 500 m distance from shower core with the KASCADE-Grande detector. Astrophysics and Space Sciences Transactions, 2011, 7, 191-194. | 1.0 | 0 |
| 114 | Towards an optimized design for the Cherenkov Telescope Array. , 2012, , . | | 0 |
| 115 | LOPES-3D - vectorial measurements of radio emission from cosmic ray induced air showers. , 2013, , . | | 0 |
| 116 | Cosmic-ray Observation via Microwave Emission (CROME). , 2013, , . | | 0 |
| 117 | DETECTION OF A CHANGE OF SLOPE IN THE SPECTRUM OF HEAVY MASS COSMIC RAYS PRIMARIES BY THE KASCADE-GRANDE EXPERIMENT. Acta Polytechnica, 2013, 53, 728-731. | 0.3 | 0 |
| 118 | KASCADE-Grande: Composition studies in the view of the post-LHC hadronic interaction models. EPJ Web of Conferences, 2017, 145, 13001. | 0.1 | 0 |
| 119 | KASCADE-Grande: Composition studies in the view of the post-LHC hadronic interaction models. EPJ Web of Conferences, 2017, 145, 13001. | 0.1 | 0 |