

# Anatoly A Petrukhin

## List of Publications by Year in descending order

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| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Optimization of electromagnetic and hadronic extensive air shower identification using the muon detectors of the TAIGA experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 952, 161730. | 0.7 | 4         |
| 2  | Cascade showers in the Cherenkov light in water. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 952, 161850.   | 0.7 | 2         |
| 3  | TAIGA—A hybrid array for high-energy gamma astronomy and cosmic-ray physics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 958, 162113.   | 0.7 | 7         |
| 4  | Cherenkov EAS arrays in the Tunka astrophysical center: From Tunka-133 to the TAIGA gamma and cosmic ray hybrid detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 952, 161830.          | 0.7 | 3         |
| 5  | Cherenkov water detector NEVOD and its further development. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 952, 161585.  | 0.7 | 2         |
| 6  | Measuring the Cherenkov light yield from cosmic ray muon bundles in the water detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 952, 161586.  | 0.7 | 2         |
| 7  | Development of a novel wide-angle gamma-ray imaging air Cherenkov telescope with SiPM-based camera for the TAIGA hybrid installation. Journal of Instrumentation, 2020, 15, C09062-C09062.   | 0.5 | 9         |
| 8  | TAIGA—an advanced hybrid detector complex for astroparticle physics and high energy gamma-ray astronomy in the Tunka valley. Journal of Instrumentation, 2020, 15, C09031-C09031.  | 0.5 | 19        |
| 9  | An approach for identification of ultrahigh energy extensive air showers with scintillation detectors at TAIGA experiment. Journal of Instrumentation, 2020, 15, C09037-C09037.  | 0.5 | 0         |
| 10 | Design features and data acquisition system of the TAIGA-Muon scintillation array. Journal of Instrumentation, 2020, 15, C06057-C06057.  | 0.5 | 7         |
| 11 | NEVOD—DECOR Experiment on the Measurement of the Energy Deposit of Cosmic Ray Muon Bundles. Physics of Atomic Nuclei, 2020, 83, 1369-1374.   | 0.1 | 1         |
| 12 | Experimental Complex TAIGA. Physics of Atomic Nuclei, 2020, 83, 1375-1382.   | 0.1 | 4         |
| 13 | Status of the TAIGA Experiment: From Cosmic-Ray Physics to Gamma Astronomy in Tunka Valley. Physics of Atomic Nuclei, 2020, 83, 905-915.   | 0.1 | 1         |
| 14 | Possible explanation of results of CR investigations in the energy interval 1015 – 1017 eV: Nuclear-physical approach. Journal of Physics: Conference Series, 2019, 1181, 012022.  | 0.3 | 0         |
| 15 | Status of the URAN array for detection of EAS neutron component. Journal of Physics: Conference Series, 2019, 1181, 012081.  | 0.3 | 0         |
| 16 | Tunka Advanced Instrument for cosmic rays and Gamma Astronomy. Journal of Physics: Conference Series, 2019, 1263, 012006.  | 0.3 | 3         |
| 17 | Possible approach to the analysis of nucleus-nucleus interactions at very high energies. Journal of Physics: Conference Series, 2019, 1181, 012090.  | 0.3 | 1         |
| 18 | First results of the tracking system calibration of the TAIGA-IACT telescope. Journal of Physics: Conference Series, 2019, 1181, 012045.   | 0.3 | 9         |

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|----|--|-----|-----------|
| 19 | Near-Vertical Local Density Spectra of the EAS Charged Particles in the Energy Range of 1014â€“1017 eV. Physics of Atomic Nuclei, 2019, 82, 699-703.   | 0.1 | 0         |
| 20 | Investigation of the Energy Loss of Muon Bundles in the Cherenkov Water Calorimeter. Physics of Atomic Nuclei, 2019, 82, 680-684.  | 0.1 | 5         |
| 21 | Analysis of thunderstorms based on the data obtained by MH URAGAN and DMRL-C. Journal of Physics: Conference Series, 2019, 1390, 012060.   | 0.3 | 3         |
| 22 | Investigation of muon bundles generated by UHECR by means of the new coordinate-tracking detector. Journal of Physics: Conference Series, 2019, 1390, 012132.  | 0.3 | 1         |
| 23 | Expected Spectra of Muon-Induced Cascades in IceCube. Physics of Atomic Nuclei, 2019, 82, 689-693.   | 0.1 | 2         |
| 24 | Forbush Decreases During 2007â€“2018 According to the Muon Hodoscope URAGAN Data. Physics of Atomic Nuclei, 2019, 82, 892-896.   | 0.1 | 1         |
| 25 | Scintillation detectors for the TAIGA experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 936, 254-256. | 0.7 | 13        |
| 26 | A combined analysis of geomagnetic data and cosmic ray secondaries for the September 2017 space weather event studies. Russian Journal of Earth Sciences, 2019, 19, 1-10.                              | 0.2 | 4         |
| 27 | Simple Geometrical Model of Nucleusâ€“Nucleus Interactions at Very High Energies. Physics of Atomic Nuclei, 2019, 82, 929-933.   | 0.1 | 0         |
| 28 | Investigation of very high energy cosmic rays by means of inclined muon bundles. Astroparticle Physics, 2018, 98, 13-20.   | 1.9 | 37        |
| 29 | Application of Drift Chambers for Research of Cosmic-Ray Muon Bundles. Physics of Atomic Nuclei, 2018, 81, 1325-1331.  | 0.1 | 3         |
| 30 | Application of New Approximations of the Lateral Distribution of EAS Cherenkov Light in the Atmosphere. Physics of Atomic Nuclei, 2018, 81, 1294-1300.   | 0.1 | 1         |
| 31 | TAIGA - a hybrid array for high energy gamma astronomy and cosmic ray physics. EPJ Web of Conferences, 2018, 191, 01007.   | 0.1 | 2         |
| 32 | Studying the Anisotropy of the Muon Flux during Nongeoffective Coronal Mass Ejections of 2016. Physics of Atomic Nuclei, 2018, 81, 1370-1373.  | 0.1 | 1         |
| 33 | A Cherenkov Water Calorimeter Based on Quasi-Spherical Modules. Instruments and Experimental Techniques, 2018, 61, 649-657.  | 0.1 | 17        |
| 34 | The Calibration Telescope System of the NEVOD Cherenkov Water Detector. Instruments and Experimental Techniques, 2018, 61, 673-679.  | 0.1 | 10        |
| 35 | Low-background EN-detector for the investigation of the neutron component of EASs. Physics of Particles and Nuclei, 2018, 49, 47-50.   | 0.2 | 2         |
| 36 | The application of multi-wire drift chambers in cosmic ray research. Physics of Particles and Nuclei, 2018, 49, 86-89.   | 0.2 | 2         |

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|----|--|-----|-----------|
| 37 | Measuring the energy deposited by muon bundles of inclined EAS in the NEVOD-DECOR experiment. Physics of Particles and Nuclei, 2018, 49, 101-104.  | 0.2 | 4         |
| 38 | Techniques for detecting the Cherenkov light from cascade showers in water. Physics of Particles and Nuclei, 2018, 49, 60-63.  | 0.2 | 0         |
| 39 | The TAIGA Experiment: From Cosmic Ray Physics to Gamma Astronomy in the Tunka Valley. Physics of Particles and Nuclei, 2018, 49, 589-598.  | 0.2 | 3         |
| 40 | TAIGA Gamma Observatory: Status and Prospects. Physics of Atomic Nuclei, 2018, 81, 497-507.  | 0.1 | 29        |
| 41 | Cosmic Ray Muons of High and Ultrahigh Energies. Physics of Particles and Nuclei, 2018, 49, 639-651.   | 0.2 | 1         |
| 42 | The 2nd International Conference on Particle Physics and Astrophysics. Journal of Physics: Conference Series, 2017, 798, 011001.   | 0.3 | 0         |
| 43 | TAIGA experiment: present status and perspectives. Journal of Instrumentation, 2017, 12, C08018-C08018.  | 0.5 | 14        |
| 44 | Heavy particles at the LHC and in cosmic rays. Physics of Particles and Nuclei, 2017, 48, 793-795.   | 0.2 | 0         |
| 45 | Multisector scintillation detector with fiber-optic light collection. Journal of Instrumentation, 2017, 12, C07004-C07004.   | 0.5 | 1         |
| 46 | The wide-aperture gamma-ray telescope TAIGA-HiSCORE in the Tunka Valley: Design, composition and commissioning. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 845, 367-372. | 0.7 | 31        |
| 47 | The TAIGA experiment: From cosmic-ray to gamma-ray astronomy in the Tunka valley. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 845, 330-333.                               | 0.7 | 19        |
| 48 | Cluster type EAS array of the NEVOD experimental complex. Journal of Instrumentation, 2017, 12, C06033-C06033.   | 0.5 | 7         |
| 49 | The detector on the basis of drift chambers for inclined muon bundle investigations. Journal of Instrumentation, 2017, 12, C07005-C07005.  | 0.5 | 3         |
| 50 | Investigation of EAS electron and muon components by means of the NEVOD calibration telescope system. Journal of Physics: Conference Series, 2017, 798, 012044.  | 0.3 | 1         |
| 51 | Energy characteristics of multi-muon events in a wide range of zenith angles. Journal of Physics: Conference Series, 2017, 798, 012049.  | 0.3 | 1         |
| 52 | Temporal and lateral distributions of EAS neutron component measured with PRISMA-32. Journal of Physics: Conference Series, 2017, 798, 012202.   | 0.3 | 3         |
| 53 | The array of scintillation detectors with natural boron for EAS neutrons investigations. Journal of Instrumentation, 2017, 12, C07029-C07029.  | 0.5 | 11        |
| 54 | The TAIGA timing array HiSCORE - first results. EPJ Web of Conferences, 2017, 136, 03008.  | 0.1 | 8         |

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|----|---|-----|-----------|
| 55 | Cherenkov Water Detectors in Particle Physics and Cosmic Rays. Physics of Atomic Nuclei, 2017, 80, 1557-1566.   | 0.1 | 1         |
| 56 | Nucleus-nucleus interactions in very-high-energy cosmic ray experiments. EPJ Web of Conferences, 2017, 158, 01003.  | 0.1 | 0         |
| 57 | New approach to cosmic ray investigations above the knee. Journal of Physics: Conference Series, 2016, 718, 052029.   | 0.3 | 0         |
| 58 | Project of the URAN array for registration of atmospheric neutrons. Journal of Physics: Conference Series, 2016, 675, 032043.   | 0.3 | 6         |
| 59 | Investigation of the energy characteristics of EAS muon component with the NEVOD-DECOR setup. Journal of Physics: Conference Series, 2016, 675, 032035.               | 0.3 | 1         |
| 60 | Spatial distribution of Cherenkov light from cascade showers in water. Journal of Physics: Conference Series, 2016, 675, 032036.                                      | 0.3 | 0         |
| 61 | The Taiga project. Journal of Physics: Conference Series, 2016, 675, 032037.  | 0.3 | 9         |
| 62 | The registration system of the coordinate-tracking setup on the drift chambers. Journal of Physics: Conference Series, 2016, 675, 032039.                             | 0.3 | 6         |
| 63 | First results of the cosmic ray muon variation study by means of the scintillation muon hodoscope. Journal of Physics: Conference Series, 2016, 675, 032042.          | 0.3 | 0         |
| 64 | The TAIGA experiment: from cosmic ray to gamma-ray astronomy in the Tunka valley. Journal of Physics: Conference Series, 2016, 718, 052006.                           | 0.3 | 16        |
| 65 | Search of predictors of geoeffective heliospheric events by means of muon hodoscope URAGAN. Journal of Physics: Conference Series, 2016, 675, 032033.                 | 0.3 | 0         |
| 66 | Investigating the characteristics of scintillation detectors for the NEVOD-EAS experiment. Instruments and Experimental Techniques, 2016, 59, 781-788.                | 0.1 | 11        |
| 67 | Spatial distribution of Cherenkov light from cascade showers in water. Physics of Atomic Nuclei, 2016, 79, 1546-1551.   | 0.1 | 0         |
| 68 | Analysis of powerful heliospheric non-geoeffective event of the 28 April, 2015 in muon flux. Journal of Physics: Conference Series, 2016, 675, 032040.                | 0.3 | 0         |
| 69 | Characteristics of the Forbush decrease of 22 June 2015 measured by means of the muon hodoscope URAGAN. Journal of Physics: Conference Series, 2016, 675, 032038.     | 0.3 | 2         |
| 70 | Muon Hodoscope with Scintillation Strips. Physics Procedia, 2015, 74, 478-485.  | 1.2 | 3         |
| 71 | Cherenkov Water Detector NEVOD: A New Stage of Development. Physics Procedia, 2015, 74, 435-441.  | 1.2 | 15        |
| 72 | Energy Characteristics of Forbush Decreases for Different Types of Heliospheric Disturbances According to Muon Hodoscope URAGAN. Physics Procedia, 2015, 74, 470-477. | 1.2 | 2         |

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|----|---|-----|-----------|
| 73 | Studies of Thunderstorm Events Based on the Data of Muon Hodoscope URAGAN and Meteorological Radar DMRL-C. Physics Procedia, 2015, 74, 486-492.                               | 1.2 | 2         |
| 74 | Restoration of parameters of high-energy cascades in Cherenkov water calorimeter with a dense array of quasispherical modules. Physics of Atomic Nuclei, 2015, 78, 1511-1516. | 0.1 | 0         |
| 75 | Real-time data of muon hodoscope URAGAN. Advances in Space Research, 2015, 56, 2693-2705.   | 1.2 | 37        |
| 76 | Real-time experimental data of the muon hodoscope URAGAN accessible in www. Journal of Physics: Conference Series, 2015, 632, 012086.   | 0.3 | 3         |
| 77 | Towards gamma-ray astronomy with timing arrays. Journal of Physics: Conference Series, 2015, 632, 012042.   | 0.3 | 6         |
| 78 | Status of a development of the large scale coordinate-tracking setup based on the drift chambers. Journal of Physics: Conference Series, 2015, 632, 012031.                   | 0.3 | 8         |
| 79 | Measurements of the energy deposit of inclined muon bundles in the CWD NEVOD. Journal of Physics: Conference Series, 2015, 632, 012095.                                       | 0.3 | 5         |
| 80 | Are the primary cosmic ray and EAS spectra the same or not?. Journal of Physics: Conference Series, 2015, 632, 012021.  | 0.3 | 0         |
| 81 | Investigation of cascade showers in the Cherenkov water detector NEVOD. Journal of Physics: Conference Series, 2015, 632, 012038.   | 0.3 | 3         |
| 82 | Temperature effect corrections for URAGAN based on CAO, GDAS, NOAA data. Journal of Physics: Conference Series, 2015, 632, 012054.  | 0.3 | 2         |
| 83 | Local anisotropy of muon flux during Forbush decreases from URAGAN data. Journal of Physics: Conference Series, 2015, 632, 012049.  | 0.3 | 3         |
| 84 | Measuring module of the Cherenkov water detector NEVOD. Journal of Physics: Conference Series, 2015, 632, 012015.   | 0.3 | 4         |
| 85 | Simulation of the hybrid Tunka Advanced International Gamma-ray and Cosmic ray Astrophysics (TAIGA). Journal of Physics: Conference Series, 2015, 632, 012040.                | 0.3 | 5         |
| 86 | EAS array of the NEVOD Experimental Complex. Journal of Physics: Conference Series, 2015, 632, 012029.  | 0.3 | 7         |
| 87 | Study of the energy deposit of muon bundles in the NEVOD detector. EPJ Web of Conferences, 2015, 99, 06004.   | 0.1 | 6         |
| 88 | NEEDS for LHC experiment planning from results of very high energy cosmic ray Investigations (NEEDS-2). EPJ Web of Conferences, 2015, 99, 12004.                              | 0.1 | 1         |
| 89 | The Tunka detector complex: from cosmic-ray to gamma-ray astronomy. Journal of Physics: Conference Series, 2015, 632, 012034.   | 0.3 | 2         |
| 90 | Study of Characteristics of the Quasi-spherical Measurement Modules of the Cherenkov Water Calorimeter NEVOD. Physics Procedia, 2015, 74, 442-448.                            | 1.2 | 7         |

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|-----|---|-----|-----------|
| 91  | Powerful non-geoeffective interplanetary disturbance of July 2012 observed by muon hodoscope URAGAN. <i>Advances in Space Research</i> , 2015, 56, 2833-2838.   | 1.2 | 2         |
| 92  | Novel method for detecting the hadronic component of extensive air showers. <i>Physics of Atomic Nuclei</i> , 2015, 78, 349-352.  | 0.1 | 9         |
| 93  | Local anisotropy of muon flux – The basis of the method of muon diagnostics of extra-terrestrial space. <i>Advances in Space Research</i> , 2015, 56, 2713-2718.  | 1.2 | 11        |
| 94  | The array for EAS neutron component detection. <i>Journal of Instrumentation</i> , 2014, 9, C08028-C08028.  | 0.5 | 31        |
| 95  | Study of cascade showers generated by near-horizontal muons in the water Cherenkov detector with a dense array of optical modules. <i>Bulletin of the Lebedev Physics Institute</i> , 2014, 41, 292-296.                      | 0.1 | 4         |
| 96  | Energy release of inclined muon groups in the nevod water Cherenkov detector. <i>Bulletin of the Lebedev Physics Institute</i> , 2014, 41, 218-221.   | 0.1 | 7         |
| 97  | TAIGA the Tunka Advanced Instrument for cosmic ray physics and Gamma Astronomy – present status and perspectives.. <i>Journal of Instrumentation</i> , 2014, 9, C09021-C09021.  | 0.5 | 27        |
| 98  | The coordinate-tracking detector based on the drift chambers for ultrahigh-energy cosmic ray investigations. <i>Journal of Instrumentation</i> , 2014, 9, C08018-C08018.  | 0.5 | 18        |
| 99  | Muon puzzle in cosmic ray experiments and its possible solution. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 742, 228-231. | 0.7 | 40        |
| 100 | Long-term variations in the muon flux angular distribution. <i>Geomagnetism and Aeronomy</i> , 2013, 53, 571-579.   | 0.2 | 16        |
| 101 | Proposal of NEVOD-EAS shower array. <i>Journal of Physics: Conference Series</i> , 2013, 409, 012098.   | 0.3 | 5         |
| 102 | The ProtoPRISMA array for EAS study: first results. <i>Journal of Physics: Conference Series</i> , 2013, 409, 012044.   | 0.3 | 12        |
| 103 | Reconstruction of single muon tracks in Cherenkov water detector NEVOD. <i>Journal of Physics: Conference Series</i> , 2013, 409, 012132.   | 0.3 | 2         |
| 104 | Study of heliospheric disturbances on the basis of cosmic ray muon flux anisotropy. <i>Journal of Physics: Conference Series</i> , 2013, 409, 012196.   | 0.3 | 1         |
| 105 | Muon problem in UHECR investigations. <i>Journal of Physics: Conference Series</i> , 2013, 409, 012103.   | 0.3 | 2         |
| 106 | Study of characteristics of Forbush decreases detected in 2006 – 2011 by means of muon hodoscope URAGAN. <i>Journal of Physics: Conference Series</i> , 2013, 409, 012189.  | 0.3 | 5         |
| 107 | Present status of muon diagnostics. <i>Journal of Physics: Conference Series</i> , 2013, 409, 012192.   | 0.3 | 11        |
| 108 | New technique and results of cosmic ray investigations in the energy interval 1015–1019eV. <i>EPJ Web of Conferences</i> , 2013, 53, 08001.   | 0.1 | 0         |

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|-----|--|-----|-----------|
| 109 | LARGE AREA HODOSCOPES FOR MUON DIAGNOSTICS OF HELIOSPHERE AND EARTH'S MAGNETOSPHERE. Acta Polytechnica, 2013, 53, 807-810.   | 0.3 | 0         |
| 110 | INFLUENCE OF THE RESULTS OF UHECR DETECTION ON THE LHC EXPERIMENTS. Acta Polytechnica, 2013, 53, 707-711.  | 0.3 | 4         |
| 111 | Nuclear-physical approach to interpretation of results of cosmic ray investigations above the knee. Nuclear Physics, Section B, Proceedings Supplements, 2011, 212-213, 235-240. | 0.5 | 5         |