

Федин О.Л. - Лаборатория адронной физики - 2 квартал 2022

| № п/п | Название публикации (статьи, монографии, пособия и т.д.) | Авторы | Где опубликовано (название журнала, сборника, издательства и т.д.) |
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| <i>Публикации Web of Science</i> | | | |
| 1. | Search for associated production of a Z boson with an invisibly decaying Higgs boson or dark matter candidates at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Lett. B 829 (2022) 137066 |
| 2. | Measurement of the nuclear modification factor for muons from charm and bottom hadrons in $Pb+Pb$ collisions at 5.02 TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Lett. B 829 (2022) 137077 |
| <i>Иные публикации</i> | | | |
| 1. | Search for resonant pair production of Higgs bosons in the $bb\bar{b}\bar{b}$ final state using pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Rev. D 105 (2022) 092002 |
| 2. | Measurement of the energy asymmetry in $tt\bar{j}$ production at 13 TeV with the ATLAS experiment and interpretation in the SMEFT framework | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Eur. Phys. J. C 82 (2022) 374 |

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| 3. | Measurements of azimuthal anisotropies of jet production in Pb+ Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Rev. C 105 (2022) 064903 |
| 4. | Constraints on Higgs boson production with large transverse momentum using $H \rightarrow b\bar{b}$ decays in the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Rev. D 105 (2022) 092003 |
| 5. | Search for flavour-changing neutral-current interactions of a top quark and a gluon in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Eur. Phys. J. C 82 (2022) 334 |
| 6. | Determination of the parton distribution functions of the proton using diverse ATLAS data from pp collisions at $\sqrt{s} = 7, 8$ and 13 TeV | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Eur. Phys. J. C 82 (2022) 438 |
| 7. | Search for single production of a vectorlike T quark decaying into a Higgs boson and top quark with fully hadronic final states using the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Rev. D 105 (2022) 092012 |
| 8. | Measurements of differential cross-sections in top-quark pair events with a high transverse momentum top quark and limits on | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, | JHEP 2206 (2022) 063 |

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| | beyond the Standard Model contributions to top-quark pair production with the ATLAS detector at $\sqrt{s} = 13$ TeV | A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | |
| 9. | Search for neutral long-lived particles in pp collisions at $\sqrt{s} = 13$ TeV that decay into displaced hadronic jets in the ATLAS calorimeter | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | |

Федин О.Л. - Лаборатория адронной физики - 3 квартал 2022

| № п/п | Название публикации (статьи, монографии, пособия и т.д.) | Авторы | Где опубликовано (название журнала, сборника, издательства и т.д.) |
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| Публикации Web of Science | | | |
| 1. | Modelling and computational improvements to the simulation of single vector-boson plus jet processes for the ATLAS experiment | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | JHEP 2208 (2022) 089 |
| 2. | Study of $B_c^+ \rightarrow J/\psi D_s^+$ and $B_c^+ \rightarrow J/\psi D_s^{*+}$ decays in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | JHEP 2208 (2022) 087 |
| 3. | Measurements of the Higgs boson inclusive and differential fiducial cross-sections in the diphoton decay channel with pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | JHEP 2208 (2022) 027 |
| 4. | Direct constraint on the Higgs–charm coupling from a search for Higgs boson decays into charm quarks with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Eur. Phys. J. C 82 (2022) 717 |
| 5. | Search for invisible Higgs-boson decays in events with vector-boson fusion signatures | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, | JHEP 2208 (2022) 104 |

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| | using 139 fb^{-1} of proton-proton data recorded by the ATLAS experiment | V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | |
| 6. | Search for events with a pair of displaced vertices from long-lived neutral particles decaying into hadronic jets in the ATLAS muon spectrometer in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Rev. D 106 (2022) 032005 |
| 7. | Measurements of jet observables sensitive to b-quark fragmentation in $t\bar{t}$ events at the LHC with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Rev. D 106 (2022) 032008 |
| 7. | Observation of WWW production in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Phys. Rev. Lett. 129 (2022) 061803 |
| <i>Иные публикации</i> | | | |
| 1. | Measurement of Higgs boson decay into b -quarks in associated production with a top-quark pair in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | JHEP 2206 (2022) 097 |
| 2. | A search for an unexpected asymmetry in the production of $e^+\mu^-$ and $e^-\mu^+$ pairs in proton–proton collisions recorded by the ATLAS detector at $\sqrt{s} = 13 \text{ TeV}$ | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, | Phys. Lett. B 830 (2022) 137106 |

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| | | A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | |
| 3. | Search for long-lived charginos based on a disappearing-track signature using 136 fb^{-1} of pp collisions at $\sqrt{s} = 13\text{ TeV}$ with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Eur. Phys. J. C 82 (2022) 606 |
| 4. | Measurements of Higgs boson production cross-sections in the $H \rightarrow \tau^+\tau^-$ decay channel in pp collisions at $\sqrt{s} = 13\text{ TeV}$ with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | JHEP 2208 (2022) 175 |
| 5. | Constraints on Higgs boson properties using $WW^*(\rightarrow e\nu\mu\nu)jj$ production in 36.1fb^{-1} of $\sqrt{s} = 13\text{ TeV}$ pp collisions with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Eur. Phys. J. C 82 (2022) 622 |
| 6. | Two-particle Bose–Einstein correlations in pp collisions at $\sqrt{s} = 13\text{ TeV}$ measured with the ATLAS detector at the LHC | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | Eur. Phys. J. C 82 (2022) 608 |

Федин О.Л. - Лаборатория адронной физики - 4 квартал 2022

| № п/п | Название публикации (статьи, монографии, пособия и т.д.) | Авторы | Где опубликовано (название журнала, сборника, издательства и т.д.) |
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| <i>Публикации Web of Science</i> | | | |
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| <i>Иные публикации</i> | | | |
| 1 | Search for pair-produced scalar and vector leptoquarks decaying into third-generation quarks and first- or second-generation leptons in pp collisions with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2210.04517 |
| 2 | Search for Higgs boson pair production in association with a vector boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2210.05415 |
| 3 | Deep generative models for fast photon shower simulation in ATLAS | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2210.06204 |
| 4 | Search for pair-production of vector-like quarks in pp collision events at $\sqrt{s} = 13$ TeV with at least one leptonically decaying Z | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, | https://arxiv.org/abs/2210.15413 |

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| | boson and a third-generation quark with the ATLAS detector | A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | |
| 5 | Search for $t\bar{t} H/A \rightarrow t\bar{t} t\bar{t}$ production in the multilepton final state in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.01136 |
| 6 | Constraining the Higgs boson self-coupling from single- and double-Higgs production with the ATLAS detector using pp collisions at $\sqrt{s} = 13$ TeV | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.01216 |
| 7 | A search for heavy Higgs bosons decaying into vector bosons in same-sign two-lepton final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.02617 |
| 8 | Search for boosted diphoton resonances in the 10 to 70 GeV mass range using 138 fb^{-1} of 13 TeV pp collisions with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.04172 |
| 9 | Constraints on spin-0 dark matter mediators and invisible Higgs decays using ATLAS 13 TeV pp collision data with two top quarks and missing transverse momentum in the final state | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.05426 |

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| 10 | Search for dark matter produced in association with a dark Higgs boson decaying into W^+W^- in the one-lepton final state at $\sqrt{s} = 13$ TeV using 139 fb^{-1} of pp collisions recorded with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.07175 |
| 11 | Search for doubly charged Higgs boson production in multi-lepton final states using 139 fb^{-1} of proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.07505 |
| 12 | Search for supersymmetry in final states with missing transverse momentum and three or more b -jets in 139 fb^{-1} of proton–proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.08028 |
| 13 | Search for new phenomena in multi-body invariant masses in events with at least one isolated lepton and two jets using $\sqrt{s} = 13$ TeV proton-proton collision data collected by the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.08945 |
| 14 | Observation of gauge boson joint-polarisation states in $W^\pm Z$ production from pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.09435 |
| 15 | Measurement of substructure-dependent jet suppression in $Pb+Pb$ collisions at 5.02 TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, | https://arxiv.org/abs/2211.11470 |

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| | | A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | |
| 16 | Search for dark matter produced in association with a single top quark and an energetic W boson in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.13138 |
| 17 | ATLAS flavour-tagging algorithms for the LHC Run 2 pp collision dataset | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.16345 |
| 18 | Measurement of $Z\gamma\gamma$ production in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.14171 |
| 19 | Tools for estimating fake/non-prompt lepton backgrounds with the ATLAS detector at the LHC | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.16178 |
| 20 | Charged-hadron production in pp , $p+Pb$, $Pb+Pb$, and $Xe+Xe$ collisions at $\sqrt{s_{NN}} = 5$ TeV with the ATLAS detector at the LHC | ATLAS Collaboration, O. Fedin, Yu. Naryshkin, V. Maleev, V. Schegelsky, V. Solovyev, A. Ezhilov, Y. Ryabov, V. Grachev, M. Levchenko, D. Pudzha | https://arxiv.org/abs/2211.15257 |