

# **Сведения об оппонентах и ведущей организации**

По диссертации Таныйлдызы Шюкрю Ханиф на соискание ученой степени кандидата физико-математических наук по специальности 01.04.02 – теоретическая физика.

## **Официальные оппоненты:**

**Дубинин Михаил Николаевич**

Доктор физико-математических наук, без звания, ведущий научный сотрудник, Научно исследовательский институт ядерной физики имени Д.В. Скобельцына Московского государственного университета имени М.В. Ломоносова.

Телефон: (495) 9392393

Email: [dubinin@theory.sinp.msu.ru](mailto:dubinin@theory.sinp.msu.ru)

Адрес: НИИЯФ МГУ, 119991, ГСП-1, Москва, Ленинские горы, дом 1, строение 2.

## **Список избранных публикаций за 2010 – 2015 годы:**

1.

High-temperature Higgs potential of the two-doublet model in catastrophe theory

M.N. Dubinin (SINP, Moscow), E.Yu. Petrova (Moscow State U.). 2015. 19 pp.

Published in Theor.Math.Phys. 184 (2015) 2, 1170-1188, Teor.Mat.Fiz. 184 (2015) 2, 315–337

DOI: 10.1007/s11232-015-0325-8

2.

Two-Higgs doublet potential of the MSSM at finite temperature and Higgs boson masses

M.V. Dolgopolov (Samara State U.), M.N. Dubinin (SINP, Moscow), E.N. Rykova (Samara State U.).

2008.

Conference: C08-05-23 Proceedings

3.

Threshold corrections to the MSSM effective Higgs potential: gaugino and higgsino contributions

E. Rykova, M. Dolgopolov (Samara State U.), M. Dubinin (SINP, Moscow), I. Erofeev (Samara State U.). 2013. 8 pp.

Published in PoS QFTHEP2011 (2013) 068

Conference: C11-09-24 Proceedings

4.

Neutral mesons' mixings and rare decays in the framework of MSSM

Mikhail Dubinin, Alexey Sukachev (SINP, Moscow). 2010. 8 pp.

Published in PoS QFTHEP2010 (2010) 034

Conference: C10-09-08 Proceedings

5.

High energy physics and quantum field theory. Proceedings, 17th International Workshop, QFTHEP 2003, Samara, Russia, September 4-11, 2003

M.N. Dubinin (ed.), V.I. Savrin (ed.) (Moscow State U.). 2003. 521 pp.

Prepared for Conference: C03-09-04.2 (Moscow, Russia: Moscow State Univ. (2003) 521 p)  
Contributions

6.

W-boson production at upgraded HERA in the standard model and beyond  
M.N. Dubinin (SINP, Moscow), H.S. Song (Seoul Natl. U.). May 1998. 10 pp.

Prepared for Conference: C98-05-18 Proceedings

7.

Problems of automatic calculation for collider physics

Edward E. Boos, Mikhail N. Dubinin (SINP, Moscow). 2010. 14 pp.

Published in Phys.Usp. 53 (2010) 1039-1051, Usp.Fiz.Nauk 180 (2010) 1081-1094

DOI: 10.3367/UFNe.0180.201010d.1081

8.

Soft supersymmetry breaking and explicit CP violation in the two-Higgs-doublet model

E.N. Akhmetzyanova, M.V. Dolgopolov, M.N. Dubinin (Samara State U. & SINP, Moscow). Sep 2003.  
11 pp.

Prepared for Conference: C03-09-04.2, p.273-283 Proceedings

9.

Critical parameters of the temperature evolution of the two-doublet potential in the minimal  
supersymmetric standard model

M.V. Dolgopolov (Samara State U.), M.N. Dubinin (SINP, Moscow), E.N. Rykova (Samara State U.).  
2010. 5 pp.

Published in Phys.Atom.Nucl. 73 (2010) 1032-1036, Yad.Fiz. 73 (2010) 1069-1073

DOI: 10.1134/S1063778810060177

## **Демидов Сергей Владимирович**

Кандидат физико-математических наук, без звания, научный сотрудник,  
Федеральное государственное бюджетное учреждение науки,  
Институт ядерных исследований Российской академии наук.

Телефон: 8(499)783-92-91

Email: [demidov@ms2.inr.ac.ru](mailto:demidov@ms2.inr.ac.ru)

Адрес: 117312, Москва, В-312, проспект 60-летия октября, д.7а, ИЯИ РАН

### Список избранных публикаций за 2010 – 2015 годы:

1.

Semiclassical description of soliton-antisoliton pair production in particle collisions  
S.V. Demidov, D.G. Levkov. Sep 23, 2015. 55 pp.

INR-TH-2015-023

e-Print: arXiv:1509.07125 [hep-th]

2.

Nucleon-decay like signatures of Hylogenesis

S.V. Demidov (Moscow, INR), D.S. Gorbunov (Moscow, MIPT & Moscow, INR). Jul 18, 2015. 28 pp.  
INR-TH-2015-016  
e-Print: arXiv:1507.05170 [hep-ph]

3.

High-energy limit of collision-induced false vacuum decay  
Sergei Demidov, Dmitry Levkov (Moscow, INR). Mar 21, 2015. 32 pp.  
Published in JHEP 1506 (2015) 123  
INR-TH-2015-009  
DOI: 10.1007/JHEP06(2015)123  
e-Print: arXiv:1503.06339 [hep-ph]

4.

Indirect searches for dark matter at Baksan and Baikal  
S.V. Demidov, O.V. Suvorova (Moscow, INR). 2015. 8 pp.  
Published in Phys.Part.Nucl. 46 (2015) 2, 222-229  
DOI: 10.1134/S1063779615020070  
Conference: C14-01-26 Proceedings

5.

Sensitivity of the Baikal-GVD neutrino telescope to neutrino emission toward the center of the galactic dark matter halo  
A.D. Avrorin (Moscow, INR) et al.. Dec 11, 2014. 6 pp.  
Published in JETP Lett. 101 (2015) 5, 289-294  
DOI: 10.1134/S0021364015050021  
e-Print: arXiv:1412.3672 [astro-ph.HE]

6.

Sgoldstino-Higgs mixing in models with low-scale supersymmetry breaking  
K.O. Astapov, S.V. Demidov (Moscow, INR & Moscow State U.). Nov 23, 2014. 34 pp.  
Published in JHEP 1501 (2015) 136  
INR-TH-2014-028  
DOI: 10.1007/JHEP01(2015)136  
e-Print: arXiv:1411.6222 [hep-ph]

7.

Collider signatures of Hylogenesis  
S.V. Demidov (Moscow, INR), D.S. Gorbunov (Moscow, INR & Moscow, MIPT), D.V. Kirpichnikov (Moscow, INR). Nov 22, 2014. 6 pp.  
Published in Phys.Rev. D91 (2015) 3, 035005  
INR-TH-2014-027  
DOI: 10.1103/PhysRevD.91.035005  
e-Print: arXiv:1411.6171 [hep-ph]

8.

Neutrino physics with the Baksan Underground Scintillation Telescope  
M.M. Boliev, S.V. Demidov, O.V. Suvorova. 2014. 3 pp.  
Published in Nuovo Cim. C037 (2014) 03, 193-195  
DOI: 10.1393/ncc/i2014-11782-6  
Conference: C13-09-18.2 Proceedings

9.

Search for neutrino emission from relic dark matter in the Sun with the Baikal NT200 detector  
Baikal Collaboration (A.D. Avrorin (Moscow, INR) et al.). May 14, 2014. 9 pp.

Published in Astropart.Phys. 62 (2014) 12-20

DOI: 10.1016/j.astropartphys.2014.07.006

e-Print: arXiv:1405.3551 [astro-ph.HE]

10.

Implications of sgoldstino-Higgs mixing

S. Demidov, K.O. Astapov (Moscow State U.). 2013. 6 pp.

Published in PoS QFTHEP2013 (2013) 090

Conference: C13-06-23.1 Proceedings

11.

SUSY in the sky or a keV signature of sub-GeV gravitino dark matter

S.V. Demidov (Moscow, INR), D.S. Gorbunov (Moscow, INR & Moscow, MIPT). Apr 4, 2014. 4 pp.

Published in Phys.Rev. D90 (2014) 035014

INR-TH-2014-010

DOI: 10.1103/PhysRevD.90.035014

e-Print: arXiv:1404.1339 [hep-ph]

12.

Upper limit on the cross section for elastic neutralino-nucleon scattering in a neutrino experiment at the Baksan Underground Scintillator Telescope

O.V. Suvorova, M.M. Boliev, S.V. Demidov, S.P. Mikheyev (Moscow, INR). 2013. 10 pp.

Published in Phys.Atom.Nucl. 76 (2013) 1367-1376, Yad.Fiz. 76 (2013) 1433-1442

DOI: 10.1134/S1063778813100189

13.

Soliton-antisoliton pair production in particle collisions

S.V. Demidov, D.G. Levkov (Moscow, INR). Mar 2011. 4 pp.

Published in PoS QFTHEP2010 (2011) 048

Conference: C10-09-08, Conference: C10-09-08 Proceedings

14.

Soliton-antisoliton pair production in collisions of high-energy particles

S.V. Demidov, D.G. Levkov (Moscow, INR). Jun 2010. 6 pp.

Conference: C10-06-06.1 Proceedings

15.

Search for muon signal from dark matter annihilations inthe Sun with the Baksan Underground Scintillator Telescope for 24.12 years

M.M. Boliev (Baksan Neutrino Observ.), S.V. Demidov, S.P. Mikheyev, O.V. Suvorova (Moscow, INR). Jan 2013. 20 pp.

Published in JCAP 1309 (2013) 019

DOI: 10.1088/1475-7516/2013/09/019

e-Print: arXiv:1301.1138 [astro-ph.HE]

## **Ведущая организация**

Национальный исследовательский центр “Курчатовский институт”, Федеральное государственное бюджетное учреждение, Государственный научный центр Российской Федерации – Институт физики высоких энергий

Тел.: (496) 7713623

Факс: (496) 7742824

Email: [fgbu@ihep.ru](mailto:fgbu@ihep.ru)

Адрес: 142281, Московская область, город Протвино, площадь Науки, дом 1

### **Список избранных публикаций за 2010 – 2015 годы:**

1.

Iso-spin asymmetry of quark distributions and implications for single top-quark production at the LHC  
S. Alekhin (Hamburg U., Inst. Theor. Phys. II & Serpukhov, IHEP), J. Bluemlein (DESY, Zeuthen), S. Moch (Hamburg U., Inst. Theor. Phys. II), R. Placakyte (DESY). Aug 31, 2015. 22 pp.  
DESY-15-161  
e-Print: arXiv:1508.07923 [hep-ph]

2.

Hadroproduction of heavy quarkonia at the LHC  
A.V. Berezhnoy (SINP, Moscow), A.K. Likhoded (Moscow, MIPT & Serpukhov, IHEP), A.V. Luchinsky, S.V. Poslavsky (Serpukhov, IHEP). 2015. 9 pp.  
Published in Phys.Atom.Nucl. 78 (2015) 3, 419-427, Yad.Fiz. 78 (2015) 5, 449–457  
DOI: 10.1134/S1063778815020118

3.

Relative Yield of Heavy Hadrons as a Function of the Transverse Momentum in LHC Experiments  
A.V. Berezhnoy (SINP, Moscow), A.K. Likhoded (Serpukhov, IHEP & Moscow, MIPT). 2015. 9 pp.  
Published in Phys.Atom.Nucl. 78 (2015) 2, 292-300  
DOI: 10.1134/S1063778815020106

4.

Charge-exchange reactions from the standpoint of the parton model  
M.L. Nekrasov (Serpukhov, IHEP). Mar 16, 2015. 19 pp.  
e-Print: arXiv:1503.04719 [hep-ph]

5.

Associated production of  $\Upsilon$  and open charm at LHC  
A.V. Berezhnoy (SINP, Moscow), A.K. Likhoded (Serpukhov, IHEP). Mar 15, 2015. 7 pp.  
Published in Int.J.Mod.Phys. A30 (2015) 20, 1550125  
DOI: 10.1142/S0217751X15501250

6.

Inelastic diffraction and role of reflective scattering at the LHC  
S.M. Troshin, N.E. Tyurin (Serpukhov, IHEP). Mar 12, 2015. 10 pp.

e-Print: arXiv:1503.03612 [hep-ph]

7.

Hadronic production of heavy quarkonia at LHC

Anatolii Konstantinovich Likhoded, Alexey Valerievich Luchinsky, Stanislav Poslavsky (Serpukhov, IHEP). 2014.

Published in PoS BaldinISHEPPXXII (2014) 020

Conference: C14-09-15.10 Proceedings

8.

Simultaneous production of charmonium and bottomonium mesons at the LHC

A.K. Likhoded (Moscow, MIPT & Serpukhov, IHEP), A.V. Luchinsky, S.V. Poslavsky (Serpukhov, IHEP & Moscow, ITEP). Mar 1, 2015. 8 pp.

Published in Phys.Rev. D91 (2015) 11, 114016

DOI: 10.1103/PhysRevD.91.114016

e-Print: arXiv:1503.00246 [hep-ph]

9.

RS model with a small curvature and dielectron production at the LHC

A.V. Kisseelev (Serpukhov, IHEP & Moscow State U.). 2014. 4 pp.

Published in Phys.Part.Nucl.Lett. 11 (2014) 6, 716-719

DOI: 10.1134/S1547477114060065

10.

Anisotropic flow in pp-collisions at the LHC

S.M. Troshin, N.E. Tyurin (Serpukhov, IHEP). Nov 24, 2014. 11 pp.

Published in Int.J.Mod.Phys. E24 (2015) 08, 1550066

DOI: 10.1142/S0218301315500664

e-Print: arXiv:1411.6374 [hep-ph]

11.

Production of  $\eta Q$  meson at LHC

A.K. Likhoded (Serpukhov, IHEP & Moscow, MIPT), A.V. Luchinsky, S.V. Poslavsky (Serpukhov, IHEP & Kurchatov Inst., Moscow). Nov 5, 2014. 5 pp.

Published in Mod.Phys.Lett. A30 (2015) 07, 1550032

DOI: 10.1142/S0217732315500327

e-Print: arXiv:1411.1247 [hep-ph]

12.

Performance of the ATLAS Tile Hadronic Calorimeter at LHC in Run 1 and planned upgrades

O. Solovyanov (Serpukhov, IHEP). 2014.

Published in JINST 9 (2014) 10, C10006

DOI: 10.1088/1748-0221/9/10/C10006

Conference: C14-02-24 Proceedings

13.

Impact-parameter analysis of TOTEM data at the LHC: Black disk limit exceeded

A. Alkin, E. Martynov (BITP, Kiev), O. Kovalenko (Taras Shevchenko U.), S.M. Troshin (Serpukhov, IHEP). Mar 31, 2014. 5 pp.

Published in Phys.Rev. D89 (2014) 9, 091501

DOI: 10.1103/PhysRevD.89.091501  
e-Print: arXiv:1403.8036 [hep-ph]

14.

Slow down of the mean multiplicity growth at the LHC  
S.M. Troshin, N.E. Tyurin (Serpukhov, IHEP). Dec 3, 2013. 2 pp.  
Published in Phys.Lett. B732 (2014) 95-96  
DOI: 10.1016/j.physletb.2014.03.012  
e-Print: arXiv:1312.0820 [hep-ph]

15.

The ABM parton distributions tuned to LHC data  
S. Alekhin (DESY, Zeuthen & Serpukhov, IHEP), J. Blumlein (DESY, Zeuthen), S. Moch (DESY, Zeuthen & Hamburg U., Inst. Theor. Phys. II). Oct 11, 2013. 21 pp.  
Published in Phys.Rev. D89 (2014) 5, 054028  
DESY-13-183, DO-TH-13-26, SFB-CPP-13-71, LPN-13-068  
DOI: 10.1103/PhysRevD.89.054028  
e-Print: arXiv:1310.3059 [hep-ph]

## **Научные руководители:**

### **Казаков Дмитрий Игоревич**

доктор физико-математических наук, профессор, г.н.с  
Лаборатории теоретической физики им. Н.Н. Боголюбова  
Объединенного института ядерных исследований

тел.: 8(496) 2165687

email: [kazakovd@theor.jinr.ru](mailto:kazakovd@theor.jinr.ru)

адрес: 141980, Московская область, г. Дубна, ул. ЖолиоКюри, д.6., ЛТФ ОИЯИ

### **Бедняков Александр Вадимович**

кандидат физико-математических наук, с.н.с  
Лаборатории теоретической физики им. Н.Н. Боголюбова  
Объединенного института ядерных исследований

тел.: 8(496) 2162748

email: [bednya@theor.jinr.ru](mailto:bednya@theor.jinr.ru)

адрес: 141980, Московская область, г. Дубна, ул. ЖолиоКюри, д.6., ЛТФ ОИЯИ

Ученый секретарь  
диссертационного совета  
Д 720.001.01

А.Б. Арбузов

2015 г.