

# CURRICULUM VITAE

EVGENY ANDRONOV

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## PERSONAL DETAILS

First name and Surname: Evgeny Andronov

Gender: Male

Date of birth: 23rd of December, 1991

Place of birth: Saint Petersburg, Russia

Nationality: Russian

Marital Status: Single

Workplace Address: Ulyanovskaya Str. 1, 198504, Peterhof, Saint Petersburg, Russia

Workplace Mail Address: Saint Petersburg State University, St.Petersburg State University, 7/9 Universitetskaya nab., St. Petersburg, 199034 Russia

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Webpage: [cern.ch/evgeny.andronov](http://cern.ch/evgeny.andronov)

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## EDUCATION

09/2014–Present    Theoretical physics, Department of High Energy and Elementary Particle Physics, Faculty of Physics, Saint Petersburg State University, Saint Petersburg, Russia

**PhD student**

Supervisor: Prof. V. Vechernin

09/2012–08/2014    Department of High Energy and Elementary Particle Physics, Faculty of Physics, Saint Petersburg State University, Saint Petersburg, Russia

*Master of Physics*

Saint Petersburg University Diploma with distinction

The qualification (academic degree) was conferred in June 2014

Thesis: *'Model analysis of long-range rapidity correlations in the experimental data of the NA61/SHINE collaboration at the SPS accelerator at CERN'*

Supervisor: Prof. V. Vechernin

09/2008–08/2012    Department of High Energy and Elementary Particle Physics, Faculty of Physics, Saint Petersburg State University, Saint Petersburg, Russia

*Bachelor of Physics*

Saint Petersburg University Diploma with distinction

The qualification (academic degree) was conferred in June 2012

Thesis: *'The correlation between transverse momentum and multiplicity of charged particles in a two-component model'*

Supervisor: Prof. V. Vechernin

09/1998-06/2008 School 344, Saint Petersburg, Russia

Silver medal for outstanding academic achievements

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FIELDS OF RESEARCH INTEREST

High energy physics, ultrarelativistic nuclear physics, color string fusion, strongly interacting matter, long-range correlations, strongly intensive quantities, fluctuations, critical point of strongly interacting matter

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RESEARCH ACTIVITIES

Member of the NA61/SHINE Collaboration

Participation in the development of the string fusion model with two types of strings. Application of this model to the long-range correlations phenomena

Participation in the LUHEP group seminars on such topics as: short-range and long-range correlations (multiplicity, mean transverse momentum, net charge), modification of Glauber model, centrality determination, multi-pomeron exchange model

Participation in the data analysis on the short- and long-range correlations between multiplicities, event mean transverse momenta, net electric charge, on the multiplicity fluctuations and on the fluctuations via strongly intensive quantities for the NA61/SHINE experiment at CERN

Participation in work on the PSD (Projectile Spectator Detector of the NA61/SHINE experiment) simulation. PSD geometry description (based on GEANT4) was included in the Shine Offline Framework (tool for analysis, simulation, data monitoring etc of the NA61/SHINE experiment)

Running legacy Monte Carlo productions in the NA61/SHINE Collaboration using GEANT3

Participation in the NA61 ion analysis group seminars on such topics as: correlations, fluctuations, particles spectra, strange particles production

4 research grants from Saint-Petersburg State University

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## WORKING EXPERIENCE

- 03/2016–Present Junior researcher, St. Petersburg State University, Laboratory of Ultra-High Energy Physics, Saint Petersburg, Russia
- 01/2015–03/2016 Research engineer, St. Petersburg State University, Laboratory of Ultra-High Energy Physics, Saint Petersburg, Russia
- 10/2012–12/2014 Private teacher of physics and mathematics, Saint Petersburg, Russia
- 02/2014–12/2014 Research assistant, St. Petersburg State University, Laboratory of Ultra-High Energy Physics, Saint Petersburg, Russia
- 04/2013–12/2013 Research engineer, St. Petersburg State University, Laboratory of Ultra-High Energy Physics, Saint Petersburg, Russia
- 09/2011–08/2013 Teacher of additional learning, Saint Petersburg, Russia
- 09/2007–08/2011 Teaching assistant, Saint Petersburg, Russia
- 07/2010–08/2010 Guide in mathematics camp, Saint Petersburg, Russia
- 07/2009–08/2009 Guide in mathematics camp, Saint Petersburg, Russia

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## ORGANIZED CONFERENCES

'International Conference on New Frontiers in Physics ICNFP2015',  
Kolymbari, Crete, Greece, August 23 - August 30, 2015

'XIIth Quark Confinement and the Hadron Spectrum', Thessaloniki, Greece,  
August 29 - September 3, 2016

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## CONFERENCES, WORKSHOPS, SCHOOLS AND REPORTS

III International Conference 'Models in Quantum Field Theory' (MQFT-2010)  
dedicated to the Alexander Nikolaevich Vassiliev's anniversary, Saint  
Petersburg, Russia, October 2010

'Symposium on Theoretical and Mathematical Physics', Saint Petersburg,  
Russia, July 2011

'XLVI Annual Winter School of Saint Petersburg Nuclear Physics Institute',  
Roschino, Russia, February 2012

IV International Conference 'Models in Quantum Field Theory' (MQFT-2012)  
dedicated to Alexander Nikolaevich Vassiliev, Saint Petersburg, Russia,  
September 2012

'XLVII Annual Winter School of Saint Petersburg Nuclear Physics Institute',  
Roschino, Russia, February 2013

Oral report at 'The XXI International Workshop High Energy Physics and  
Quantum Field Theory', Repino, Russia, June 23 - June 30, 2013

Participating in activities of the CERN Summer Student Programme, CERN,  
Switzerland, July-August, 2013

Oral report at 'International Student Conference "Science and Progress" in  
Saint-Petersburg State University', Saint-Petersburg, Peterhof, Russia,  
September 30 - October 4, 2013

Oral report at 'NA61/NA49 Collaboration Meeting', Wroclaw, Poland,  
October 7 - October 11, 2013

'NA61 Hardware Upgrade Meeting', CERN, Switzerland, November 6 -  
November 8, 2013

Oral report at 'NA61/SHINE and NA49 analysis/software/calibration meeting  
in Warsaw', Warsaw, Poland, February 10 - February 14, 2014

Oral report at 'NA61/NA49 Collaboration meeting in Dubna', Dubna, Russia,  
April 7 - April 11, 2014

International school of subnuclear physics 'Status of Theoretical  
Understanding and of Experimental Power for LHC Physics and Beyond',  
Erice, Italy, June 24 - July 3, 2014

Oral report at 'XIth Quark Confinement and the Hadron Spectrum', St.  
Petersburg, Russia, September 8 - September 12, 2014

Oral report at 'XXII International Baldin Seminar on High Energy Physics  
Problems "Relativistic Nuclear Physics & Quantum Chromodynamics"',  
Dubna, Russia, September 15 - September 20, 2014

Oral report at 'International Conference dedicated to the Novozhilov's 90-th  
anniversary. In Search of Fundamental Symmetries', St. Petersburg, Russia,  
December 2 - December 5, 2014

Oral report at 'NA61/NA49 Collaboration meeting in Paris', Paris, France,  
May 25 - May 29, 2015

International school of subnuclear physics 'The future of our physics including  
new frontier', Erice, Italy, June 24 - July 3, 2015

Oral report at 'Strangeness in Quark Matter SQM2015', Dubna, Russia, July  
6 - July 11, 2015

Oral report at 'International Conference on New Frontiers in Physics

ICNFP2015', Kolymbari, Crete, Greece, August 23 - August 30, 2015

Oral report at 'NA61/NA49 Collaboration meeting at CERN', CERN, Geneva, Switzerland, September 21 - September 25, 2015

Two oral reports at 'NA61/SHINE and NA49 analysis/software/calibration meeting in Kielce', Kielce, Poland, February 15 - February 19, 2016

Oral report at 'International Session-Conference of the Section of Nuclear Physics of PSD RAS', Dubna, Russia, April 12 - April 15, 2016

Oral report at 'NA61/SHINE and NA49 collaboration meeting in Baku', Baku, Azerbaijan, May 2 - May 6, 2016

Oral report at 'Critical Point and Onset of Deconfinement 2016', Wroclaw, Poland, May 30 - June 4, 2016

Attended 'Viscous Relativistic Hydrodynamics' and 'QCD Kinetic Theory And Thermalization' courses at '26th Jyvaskyla Summer School', Jyvaskyla, Finland, August 3 - 19, 2016

Oral report at 'XIIth Quark Confinement and the Hadron Spectrum', Thessaloniki, Greece, August 29 - September 3, 2016

Oral report at 'NA61/SHINE and NA49 collaboration meeting at CERN', CERN, Geneva, Switzerland, September 19 - September 23, 2016

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## NA61 VIRTUAL MEETINGS, LUHEP SEMINARS

47 reports on the NA61 ion analysis virtual meetings, August, 2013 - October, 2016

20 reports on the seminars of Laboratory of Ultra-High Energy Physics, February, 2013 - October, 2016

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## PUBLICATIONS

E. Andronov (for the NA61/SHINE Collaboration): '*Recent results from the NA61/SHINE strong interaction physics programme*'; arXiv:1611.04745 [nucl-ex], to appear in the proceedings of XIIth International Conference on Quark Confinement and the Hadron Spectrum (EPJ Web Conf.)

E. Andronov (for the NA61/SHINE Collaboration): '*Transverse momentum and multiplicity fluctuations in Ar+Sc collisions at the CERN SPS from NA61/SHINE*'; arXiv:1610.05569 [nucl-ex], to appear in Acta Physica Polonica B Proceedings Supplement

E. Andronov (for the NA61/SHINE Collaboration): '*Recent results from NA61/SHINE*'; arXiv:1512.05938 [nucl-ex], EPJ Web Conf., 126 (2016) 04003

A. Aduszkiewicz *et al.* [NA61/SHINE Collaboration]: '*Production of  $\Lambda$ -hyperons in inelastic  $p+p$  interactions at 158 GeV/c*'; Eur. Phys. J. **C76(4)**, 198 (2016)

N. Abgrall *et al.* [NA61/SHINE Collaboration]: '*Measurements of  $\pi^\pm$  differential yields from the surface of the T2K replica target for incoming 31 GeV/c protons with the NA61/SHINE spectrometer at the CERN SPS*'; Eur. Phys. J. **C76(11)**, 617 (2016)

N. Abgrall *et al.* [NA61/SHINE Collaboration]: '*Measurements of  $\pi^\pm$ ,  $K^\pm$ ,  $K_S^0$ ,  $\Lambda$  and proton production in proton-carbon interactions at 31 GeV/c with the NA61/SHINE spectrometer at the CERN SPS*'; Eur. Phys. J. **C76(2)**, 1-49 (2016)

E. Andronov (for the NA61/SHINE Collaboration): '*Energy dependence of fluctuations in  $p+p$  and Be+Be collisions from NA61/SHINE*'; Journal of Physics: Conference Series, 668: 012036 (2016)

E. Andronov, V. Vechernin: '*Modeling the influence of string collective phenomena on the long range rapidity correlations between the transverse momentum and the multiplicities*'; AIP Conference Proceedings 1701, 060003 (2016)

A. Aduszkiewicz *et al.* [NA61/SHINE Collaboration], CERN-SPSC-2016-038; SPSC-SR-197

A. Aduszkiewicz *et al.* [NA61/SHINE Collaboration], CERN-SPSC-2015-036; SPSC-SR-171

E. Andronov: '*Influence of the quark-gluon string fusion mechanism on long-range rapidity correlations and fluctuations*'; Theoretical and Mathematical Physics, 185(1):1383-1390 (2015)

E. Andronov, V. Vechernin: '*Long range rapidity correlations between the transverse momentum and the multiplicities in light-nuclei collisions*'; PoS(BaldinISHEPPXXII)068, 2015

N. Abgrall *et al.* [NA61/SHINE Collaboration], CERN-SPSC-2014-031; SPSC-SR-145

E. Andronov, V. Vechernin: '*The correlation between transverse momentum and multiplicity of charged particles in a two-component model*'; PoS(QFTHEP 2013)054

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## LANGUAGE KNOWLEDGE

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| <b>Russian</b> | Native  |
| <b>English</b> | Reading: Very good<br>Writing: Good<br>Speaking: Good |

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## COMPUTER KNOWLEDGE

Operating Systems: Mac OS X Snow Leopard, Mac OS X Mavericks, Windows 7, Windows Vista, Windows XP, SLC5, SLC6

Programming Languages: C++

Analysis Frameworks: ROOT, AliROOT, Shine Offline, GEANT4, PYTHIA8

Software Packages: LaTeX, Maple, Microsoft Office, Origin, OpenOffice.org, NeoOffice