

Curriculum Vitae for Yuri Kovchegov

Professor

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Education

Moscow Institute of Physics and Technology	Major-Physics	B.S. equiv. (1993)
Columbia University	Major-Physics	M.A. (1995)
Columbia University	Major-Physics	M.Phil. (1996)
Columbia University	Major-Physics	Ph.D. (1998)

Research and Professional Experience

2012-present	Professor	The Ohio State University
2008-2012	Associate Professor	The Ohio State University
2004-2008	Assistant Professor	The Ohio State University
2000-2004	Research Assistant Professor	University of Washington
1999-2000	Theoretical Research Associate	Brookhaven National Laboratory
1998-1999	Postdoctoral Research Associate	University of Minnesota

Awards and Honors

1987 - 1990, a number of awards at different Math and Physics Olympiads in Moscow, Russia

1993 - 1998, Faculty Fellowship, Columbia University Graduate School of Arts and Sciences

May 21, 2006, Raymond and Beverly Sackler Prize in the Physical Sciences for outstanding research in the field of Theoretical or Experimental Nuclear/Hadron Physics, *For a number of ground-breaking contributions to theoretical understanding of Quantum Chromodynamics (QCD) at very high energies and gluon densities*, Tel Aviv University, Israel.

November 3, 2012, Fellowship in the American Physical Society upon the recommendation of the Division of Nuclear Physics *For his seminal contributions to understanding the structure and dynamics of strong color fields in nucleons and nuclei at high energies*

Significant publications:

58 refereed publications with (according to SPIRES-HEP) over 5600 citations, with 84 citations per paper, 2 “renowned” papers (> 500 citations each) with one of them having over 800 citations, 3 “famous” papers with > 250 citations, 11 “very well-known” papers with ≥ 100 citations and 11 “well-known” papers with > 50 citations. The h-index is 34. An author (with Eugene Levin) of a book on *Quantum Chromodynamics at High Energy* published by Cambridge University Press.

Significant publications during the last 3 years:

[1] Yuri V. Kovchegov, Shu Lin, *Toward Thermalization in Heavy Ion Collisions at Strong Coupling*, arXiv:0911.4707 [hep-th], **JHEP** 1003:057 (2010).

[2] Yuri V. Kovchegov, *R-Current DIS on a Shock Wave: Beyond the Eikonal Approximation*, arXiv:1005.0374 [hep-ph], Phys. Rev. D **82**, 054011 (2010).

[3] W. A. Horowitz, Yuri V. Kovchegov, *Running Coupling Corrections to High Energy Inclusive*

Gluon Production, arXiv:1009.0545 [hep-ph], Nucl. Phys. **A849**, 72 (2011).

[4] Hovhannes R. Grigoryan, Yuri V. Kovchegov, *Long-Range Rapidity Correlations in Heavy Ion Collisions at Strong Coupling from AdS/CFT*, arXiv:1012.5431 [hep-th], **JHEP** 1104:010 (2011).

[5] Hovhannes R. Grigoryan, Yuri V. Kovchegov, *Gravity Dual Corrections to the Heavy Quark Potential at Finite-Temperature*, arXiv:1105.2300 [hep-th], Nucl. Phys. **B852**, 1 (2011).

[6] Yuri V. Kovchegov, *Running Coupling Corrections to Nonlinear Evolution for Diffractive Dissociation*, arXiv:1112.2598 [hep-ph], Phys. Lett. B **710**, 192 (2012).

[7] Yuri V. Kovchegov, *AdS/CFT applications to relativistic heavy ion collisions: a brief review*, arXiv:1112.5403 [hep-ph], Rep. Prog. Phys. **75**, 124301 (2012).

[8] Yuri V. Kovchegov, Matthew D. Sievert, *A New Mechanism for Generating a Single Transverse Spin Asymmetry*, arXiv:1201.5890 [hep-ph], Phys. Rev. D **86**, 034028 (2012).

[9] A. Deshpande et al, *Electron Ion Collider: The Next QCD Frontier – Understanding the glue that binds us all*, White Paper on the Electron Ion Collider (EIC), arXiv:1212.1701 [nucl-ex].

[10] Yuri V. Kovchegov, Douglas E. Wertepny, *Long-Range Rapidity Correlations in Heavy-Light Ion Collisions*, arXiv:1212.1195 [hep-ph], submitted to Nucl. Phys. **A906**, 50 (2013).

Earlier significant publications:

[11] Yuri V. Kovchegov, *Small- x F_2 Structure Function of a Nucleus Including Multiple Pomeron Exchanges*, Phys. Rev. D **60**, 034008 (1999).

[12] Yuri V. Kovchegov, A. H. Mueller, *Gluon Production in Current-Nucleus and Nucleon-Nucleus Collisions in a Quasi-Classical Approximation*, Nucl. Phys. **B 529**, 451 (1998).

[13] Dmitri Kharzeev, Yuri V. Kovchegov, Kirill Tuchin, *Cronin Effect and High- p_T Suppression in pA Collisions*, Phys. Rev. D **68**, 094013 (2003).

[14] Yuri V. Kovchegov and Heribert Weigert, *Triumvirate of Running Couplings in Small- x Evolution*, hep-ph/0609090, Nucl. Phys. **A784**, 188 (2007).

Synergistic Activities

Referee for Physical Review D, Physical Review C, European Physical Journal C and A, Nuclear Physics A, Physical Review Letters, Physics Letters B, Journal of High Energy Physics, Journal of Physics G. Grant referee for DOE, NSF. I have been named one of the most valued reviewers by the Editors of Nuclear Physics A in 2010 and by the Editors of Physics Letters B in 2011.

Conferences Organized (over the last 3 years):

May 24 – July 16, 2010 co-organizer of the INT program “Quantifying the Properties of Hot QCD Matter”, Institute for Nuclear Theory, University of Washington, Seattle, WA

October 7 – 8, 2010 co-organizer of the “Levinfest”, an International Symposium in celebration of Genya Levin’s 70th birthday, Tel Aviv University, Tel Aviv, Israel