

# Curriculum Vitae for Yuri Kovchegov

Associate 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

2008–present	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

1993 – 1998, Faculty Fellowship, Columbia University Graduate School of Arts and Sciences  
1999 – 2002, Co-recipient of the Joint American–Israeli Bi–national Science Foundation "High Parton Density" Grant No. 9800276

August 2001, National Science Foundation (NSF) travel award to attend the NATO Advanced Study Institute #977289 "QCD Perspectives on Hot and Dense Matter" in Cargese, Corsica, France

2004 – 2007, Co-PI of the NSF-CNRS grant INT-0339138 "US-France Cooperative Research: QCD at High Parton Density"

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.

## Significant and recent publications:

44 refereed publications with (according to SPIRES-HEP) over 3600 citations, with 67 citations per paper, 1 "renowned" paper with close to 600 citations, 3 "famous" papers with > 250 citations, 7 "very well-known" papers with  $\geq 100$  citations and 6 "well-known" papers with > 50 citations. The h-index is 26.

[1] Javier L. Albacete, Yuri V. Kovchegov, Anastasios Taliotis, *Asymmetric Collision of Two Shock Waves in AdS<sub>5</sub>*, arXiv:0902.3046 [hep-th], **JHEP** 0905:060 (2009).

[2] Javier L. Albacete, Yuri V. Kovchegov, Anastasios Taliotis, *DIS on a Large Nucleus in AdS/CFT*, arXiv:0806.1484 [hep-th], **JHEP** 0807:074 (2008).

[3] Javier L. Albacete, Yuri V. Kovchegov, Anastasios Taliotis, *Modeling Heavy Ion Collisions in AdS/CFT*, arXiv:0805.2927 [hep-th], **JHEP** 0807:100 (2008).

[4] Javier L. Albacete, Yuri V. Kovchegov, Anastasios Taliotis, *Heavy Quark Potential at Finite*

*Temperature Using the Holographic Correspondence*, arXiv:0807.4747 [hep-th], Phys. Rev. D **78**, 115007 (2008).

[5] Yuri V. Kovchegov and Anastasios Taliotis, *Early Time Dynamics in Heavy Ion Collisions from AdS/CFT Correspondence*, arXiv:0705.1234 [hep-ph], Phys. Rev. C **76**, 014905 (2007).

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

[7] Yuri V. Kovchegov and Heribert Weigert, *Quark Loop Contribution to BFKL Evolution: Running Coupling and Leading- $N_f$  NLO Intercept*, hep-ph/0612071, Nucl. Phys. **A789**, 260 (2007).

[8] Javier L. Albacete and Yuri V. Kovchegov, *Solving High Energy Evolution Equation Including Running Coupling Corrections*, arXiv:0704.0612 [hep-ph], Phys. Rev. D **75**, 125021 (2007).

[9] Yuri V. Kovchegov, Shu Lin, *Toward Thermalization in Heavy Ion Collisions at Strong Coupling*, arXiv:0911.4707 [hep-th], submitted to JHEP. [10] Yuri V. Kovchegov, *Small- $x$   $F_2$  Structure Function of a Nucleus Including Multiple Pomeron Exchanges*, Phys. Rev. D **60**, 034008 (1999).

[11] Yuri V. Kovchegov, *Unitarization of the BFKL Pomeron on a Nucleus*, Phys. Rev. D **61**, 074018 (2000).

[12] Yuri V. Kovchegov, *Non-Abelian Weizsäcker-Williams field and a two-dimensional effective color charge density for a very large nucleus*, Phys. Rev. D **54**, 5463 (1996).

[13] 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).

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

## 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. Grant referee for DOE, NSF.

*Conferences Organized (over the last 3 years):*

September 25 - December 8, 2006: lead organizer, INT program “From RHIC to LHC: Achievements and Opportunities”

December 15 - 16, 2006: convener of the “QCD at High Energy” Session, QCD Workshop, Washington, DC

August 4 - 9, 2007: convener of the “Small- $x$  Physics and Diffraction” Session, 37<sup>th</sup> International Symposium on Multiparticle Dynamics (ISMD2007), LBNL

October 23 - 25, 2009: organizer of the “From Particles and Partons to Nuclei and Fields: an international workshop and symposium in celebration of Al Mueller’s 70th birthday”, Physics Department, Columbia University, New York, NY

## Current and Pending Support

*High Energy QCD*

US Department of Energy Office of Nuclear Theory

Outstanding Junior Investigator (OJI) Award #DE-FG02-05ER41377

Principal Investigator: Yuri V. Kovchegov

Award Period: 06/15/2005 - 06/14/2010

Award Amount: \$580,000