

YURI KOVCHEGOV

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date of birth 12/03/73
Citizenship: US

Employment:

- October, 2008
– present Associate Professor, Department of Physics, The Ohio State University
- September, 2004
– September, 2008 Assistant Professor, Department of Physics, The Ohio State University
- September, 2000
– August, 2004 Research Assistant Professor, Department of Physics, University of Washington
- September, 1999
– August, 2000 Theoretical Research Associate, Physics Department, Brookhaven National Laboratory
- August, 1998
– August, 1999 Postdoctoral Research Associate, School of Physics and Astronomy, University of Minnesota

Education:

- October, 1998 **Ph.D.**, Department of Physics, Columbia University
Thesis adviser: Professor A.H. Mueller
Thesis topic: Weizsäcker-Williams Approximation in Quantum Chromodynamics.
- February, 1996 **M.Phil.**, Columbia University
- February, 1995 **M.A.**, Columbia University
- 1990 - 1993 Undergraduate, Department of General and Applied Physics, Moscow Institute of Physics and Technology

Current Research Interests:

QCD at high energy. Hadronic and nuclear wave functions at high parton density. Small- x evolution: structure functions and their saturation at small- x ; diffractive dissociation; QCD odderon; running coupling corrections. Particle production and correlations in heavy ion collisions and in deep inelastic scattering: initial conditions for quark-gluon plasma formation in heavy ion collisions; KNO scaling and rapidity correlations; elliptic flow in heavy ion collisions; baryon stopping; Cronin effect and high- p_T suppression; AGK cutting rules. Thermalization in heavy ion collisions. QCD instantons in high energy collisions. Thermal field theories. Application of string theory methods such as AdS/CFT correspondence to the physics of heavy ion collisions and DIS.

References:

Prof. A. H. Mueller, Department of Physics, Columbia University, New York, NY 10027, USA, Tel. 1 (212) 854-3338, E-mail: amh@phys.columbia.edu

Prof. L. D. McLerran, Nuclear Theory Group, Physics Department, Brookhaven National Laboratory, Upton, NY 11973, USA, Tel. 1 (631) 344-8294, E-mail: mclerran@bnl.gov

Prof. E. Levin, School of Physics and Astronomy, Tel Aviv University, Tel Aviv, 69978, Israel, Tel. 972-3-640-6740, E-mail: leving@post.tau.ac.il

Prof. J.-P. Blaizot, Service de Physique Theorique, CEA/DSM/SPhT, CEA/Saclay, F-91191 Gif-sur-Yvette Cedex, France, Tel. 33 (0) 1 6908-7470, E-mail: blaizot@sphl.saclay.cea.fr

Prof. D. Kharzeev, Nuclear Theory Group, Physics Department, Brookhaven National Laboratory, Upton, NY 11973, USA, Tel. 1 (631) 344-7231, E-mail: kharzeev@bnl.gov

Prof. D. T. Son, Institute for Nuclear Theory, University of Washington, Seattle, WA 98195-1550, USA, Tel. 1 (206) 685-9782, E-mail: son@phys.washington.edu

Visitorships:

- May 17 - June 6, 1999 Short term visitor at CERN Theory Division, CERN, Geneva, Switzerland
- June 6-14, 1999 Short term visitor at Division de Physique Theorique, Institut de Physique Nucleaire d'Orsay, Orsay, France and Laboratoire de Physique Theorique des Particules Elementaires, Universite P. & M. Curie, Paris, France
- May 1 - 16, 2000 Short term visitor at High Energy Physics Department, School of Physics and Astronomy, The Raymond and Beverly Sackler Faculty of Exact Sciences, Tel Aviv University, Tel Aviv, Israel
- August 20 – September 7, 2001 Short term visitor at Service de Physique Theorique, CEA/Saclay, Gif-sur-Yvette Cedex, France
- May 25 - 31, 2003 Short term visitor at the Nuclear Theory Group, Physics Department, Columbia University, New York, NY
- April 18 – 24, 2004 Short term visitor at Service de Physique Theorique, CEA/Saclay, Gif-sur-Yvette Cedex, France
- March 6 – 12, 2009 Short term visitor at Departamento de Fisica, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile

Grants and Awards:

- 1993 – 1998 Faculty Fellowship at 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”.
- 2005 – 2010 DOE Office of Nuclear Physics Outstanding Junior Investigator (OJI) award “High Energy QCD”, DE-FG02-05ER41377.

- 2005 – 2009 Co-recipient of the Joint American–Israeli Bi-national Science Foundation Grant entitled “QCD Saturation and RHIC Data” Grant No. 2004019.
- 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.
- 2010 – present DOE Office of Nuclear Physics Grant “Nuclear Theory for High Energy Collisions”, DE-FG02-10ER41687.

Community Service:

Referee for Physical Review D, Physical Review C, European Physical Journal C, European Physics Journal 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:

- May 21 - 25, 2001 principal organizer of the “High Energy QCD: Beyond the Pomeron” RIKEN BNL Research Center & BNL Nuclear Theory workshop, Brookhaven National Laboratory, Upton, NY
- July 8 - 12, 2002 member of the Advisory Board, Wigner Centennial Conference, Pecs, Hungary
- October 14 - 25, 2002 organizer (coordinator) of the “Coherent Effects at RHIC and LHC: Initial Conditions and Hard Probes” workshop, European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy
- December 13 - 15, 2002 organizer of the INT/RHIC Winter Workshop 2002 on First Two Years of RHIC: Theory versus Experiments (INT 02-27), Institute for Nuclear Theory, University of Washington, Seattle, WA
- April 23 - 27, 2003 convener of the Working Group A: Structure Functions, Low- x and Diffraction, DIS2003, XI International Workshop on Deep Inelastic Scattering, St. Petersburg, Russia
- September 26 - 29, 2005 co-organizer of the “Odderon Searches at RHIC”, RIKEN BNL Research Center workshop, Brookhaven National Laboratory, Upton, NY
- September 25 – December 8, 2006 lead organizer, INT program “From RHIC to LHC: Achievements and Opportunities”, Institute for Nuclear Theory, University of Washington, Seattle, WA
- 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, 37th International Symposium on Multiparticle Dynamics (ISMD2007), Lawrence Berkeley National Laboratory, Berkeley, CA
- 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
- May 24 – July 16, 2010 co-organizer of the INT program “Quantifying the Properties of Hot QCD Matter” (INT 10-2A),

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

Invited talks, seminars and colloquia:

- November 1, 1996 at the Institute for Nuclear Theory, Program INT-96-3 : *Ultrarelativistic nuclei: From structure functions to the Quark-Gluon Plasma* , University of Washington, Seattle, WA
- January 14, 1997 at the Nuclear Physics Seminar, Brookhaven National Laboratory, Upton, NY
- January 27, 1997 at the Nuclear Theory Seminar, Department of Physics, Duke University, Durham, NC
- April 21, 1997 at the Theoretical Physics Seminar, Department of Physics, Columbia University, New York, NY
- July 8, 1997 at RHIC '97 Brookhaven Theory Workshop on Relativistic Heavy Ions, Brookhaven National Laboratory, Upton, NY
- December 11, 1997 at RIKEN-BNL seminar, RIKEN BNL Research Center, Brookhaven National Laboratory, Upton, NY
- January 7, 1998 at the Nuclear Theory Seminar, Nuclear Theory Group, Department of Physics, University of Washington, Seattle, WA
- January 9, 1998 at the Theory Seminar, Stanford Linear Accelerator Center , Stanford, CA
- January 30, 1998 at the Special Seminar, Center for Theoretical Physics, Massachusetts Institute of Technology, Cambridge, MA
- February 19, 1998 at the Nuclear Seminar, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN
- April 16, 1998 at the third workshop on Continuous Advances in QCD, Theoretical Physics Institute, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN
- August 26, 1998 at the Nuclear Physics Seminar, NORDITA, Copenhagen, Denmark
- September 9 & 10, 1998 two talks at the International Workshop on Coherent QCD Processes with Nucleons and Nuclei, European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy
- September 14, 1998 at the Theory Institute on Deep-Inelastic Diffraction, Argonne National Laboratory, IL
- October 1, 1998 at the Nuclear Seminar, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN
- January 7, 1999 at RHIC Winter Workshop, Nuclear Science Division, Lawrence Berkeley National Laboratory, Berkeley, CA
- March 4, 1999 at the RIKEN BNL Research Center Workshop on Hard Parton Physics in High-Energy Nuclear Collisions, Brookhaven National Laboratory, Upton, NY
- April 15, 1999 at the Nuclear Seminar, Iowa State University, Ames, IA
- May 14, 1999 at Quark Matter 99, XIV International Conference on Ultrarelativistic Nucleus–Nucleus Collisions, Turin, Italy
- May 18, 1999 at Heavy Ion Theory 99 workshop, CERN, Geneva, Switzerland

May 26, 1999 at the Physics with HERA as eA Collider Workshop, DESY, Hamburg, Germany
 June 15, 1999 at the Workshop on Small x Physics, School of Physics and Astronomy, Tel Aviv University, Tel Aviv, Israel
 October 14, 1999 at RIKEN-BNL seminar, RIKEN BNL Research Center, Brookhaven National Laboratory, Upton, NY
 October 22, 1999 at the Fall Meeting of the APS Division of Nuclear Physics, Asilomar, CA
 December 4, 1999 at the eRHIC Workshop, Brookhaven National Laboratory, Upton, NY
 February 8 & 10, 2000 two talks at the High Energy Physics Seminar, University of Arizona, Tucson, AZ
 February 14, 2000 at the Nuclear Theory Seminar, University of Washington, Seattle, WA
 March 14, 2000 Physics Department Colloquium, Duke University, Durham, NC
 April 7, 2000 at the 2nd eRHIC Workshop, Yale University, New Haven, CT
 April 29, 2000 at the DIS2000, 8th International Workshop on Deep-Inelastic Scattering and QCD, University of Liverpool, Liverpool, United Kingdom
 May 15, 2000 at the High Energy Physics Seminar, Department of Physics, Technion, Haifa, Israel
 June 19, 2000 at RHIC Lunchtime Seminar, Brookhaven National Laboratory, Upton, NY
 July 10, 2000 at eRHIC Summer Meeting, Brookhaven National Laboratory, Upton, NY.
 July 31, 2000 at the High Energy Seminar, NORDITA, Copenhagen, Denmark
 August 4, 2000 at the QCD in a Nuclear Environment Workshop, Institut für Theoretische Physik, Universität Regensburg, Regensburg, Germany
 August 7, 2000 at the Nuclear Physics Seminar, Institut für Theoretische Physik, Universität Heidelberg, Heidelberg, Germany
 September 14 & 15, 2000 two talks at the Second Workshop on Physics with a Polarized-Electron Light-ion Collider (EPIC), Massachusetts Institute of Technology, Cambridge, MA
 December 13, 2000 at the Nuclear Theory Seminar, Department of Physics, University of Washington, Seattle, WA
 January 11, 2001 at the Brown Bag Lunchtime Seminar, Nuclear Theory Group, Department of Physics, University of Washington, Seattle, WA
 January 19, 2001 at Quark Matter 2001, the Fifteenth International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, State University of New York at Stony Brook, Stony Brook, NY
 January 26, 2001 at the Nuclear Theory / RIKEN seminar, Physics Department, Brookhaven National Laboratory, Upton, NY
 April 3, 2001 at the Nuclear Theory Seminar, Center for Theoretical Physics, Massachusetts Institute of Technology, Cambridge, MA
 April 18, 2001 at the INT seminar, Institute for Nuclear Theory, University of Washington, Seattle, WA
 May 15, 2001 at the Particle Theory Seminar, Department of Physics, University of Washington, Seattle, WA
 May 21 & 24, 2001 talk and discussion moderation at the “High Energy QCD: Beyond the Pomeron” RIKEN BNL Research Center & BNL Nuclear Theory workshop, Brookhaven National Laboratory, Upton, NY

September 7, 2001 at the International Workshop on the Physics of the Quark–Gluon Plasma, Ecole Polytechnique, Palaiseau, France

November 13, 2001 at the Brown Bag Lunchtime Seminar, Nuclear Theory Group, Department of Physics, University of Washington, Seattle, WA

January 9, 2002 at the Conference on the Phenomenology of Large N_c QCD, Arizona State University, Tempe, AZ

March 1, 2002 at The Electron Ion Collider Workshop, Brookhaven National Laboratory, Upton, NY

June 15, 2002 at the Workshop on two-particle interferometry and elliptic flow at RHIC, Brookhaven National Laboratory, Upton, NY

July 18, 2002 at Quark Matter 2002, the XVI International Conference on Ultra–Relativistic Nucleus–Nucleus Collisions, Nantes, France

July 24, 2002 at TH-2002, International Conference on Theoretical Physics, UNESCO, Paris, France

August 7, 2002 at the "Current and future directions at RHIC" RIKEN BNL Research Center Workshop, Brookhaven National Laboratory, Upton, NY

October 1, 2002 at the Heavy Ion Tea seminar, Nuclear Theory Group, Lawrence Berkeley National Laboratory, Berkeley, CA

October 24, 2002 at the "Coherent Effects at RHIC and LHC: Initial Conditions and Hard Probes" workshop, ECT*, Trento, Italy

November 1, 2002 Department of Physics Colloquium, Texas A&M University, College Station, TX

December 14, 2002 at the INT/RHIC Winter Workshop 2002 on First Two Years of RHIC: Theory versus Experiments (INT 02-27), Institute for Nuclear Theory, University of Washington, Seattle, WA

March 4, 2003 Theoretical Quarks, Hadrons and Nuclei Research Group seminar, Department of Physics, University of Maryland, College Park, MD

March 6, 2003 at the "Transverse Dynamics at RHIC" workshop, Brookhaven National Laboratory, Upton, NY

April 1, 2003 at the Brown Bag Lunchtime Seminar, Nuclear Theory Group, Department of Physics, University of Washington, Seattle, WA

May 9, 2003 at the Institute for Nuclear Theory, Program INT-03-1 : *The First Three Years of Heavy-Ion Physics at RHIC*, University of Washington, Seattle, WA

May 20, 2003 at the Conference on the Intersections of Particle and Nuclear Physics (CIPANP 2003), New York, NY

May 27 & 31, 2003 two talks at the Nuclear Theory Group Seminars, Physics Department, Columbia University, New York, NY

July 28, 2003 at the Nuclear Physics Seminar, Department of Physics, Ohio State University, Columbus, OH

September 18, 2003 at the workshop on Small- x and Diffraction 2003, Fermi National Accelerator Laboratory, Batavia, IL

November 1, 2003 at the 2003 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, University of Arizona, Tucson, AZ

January 13, 2004 at Quark Matter 2004, the Seventeenth International Conference on Ultra–Relativistic Nucleus–Nucleus Collisions, Oakland, CA

January 22, 2004 Colloquium, Department of Physics, Ohio State University, Columbus, OH

February 23, 2004 Theoretical Physics Seminar, Physics Department, Columbia University, New York, NY

February 24, 2004 Particle Theory Seminar, Department of Physics, Yale University, New Haven, CT

March 4 & 5,
2004 Colloquium and seminar at the Department of Physics and Astronomy, University of Victoria, Victoria, BC, Canada

April 15, 2004 at the XII International Workshop on Deep Inelastic Scattering (DIS2004), Štrbské Pleso, Slovakia

April 21, 2004 at the Particle and Hadronic Physics Seminar, Service de Physique Théorique, CEA/Saclay, Gif-sur-Yvette Cedex, France

April 22, 2004 at the Particle Physics Seminar, Laboratoire de Physique Théorique d'Orsay, Université Paris XI, Orsay Cedex, France

May 15, 2004 at the workshop on Continuous Advances in QCD 2004, William I. Fine Theoretical Physics Institute, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN

May 28, 2004 at the Particle Theory Seminar, Department of Physics, University of Washington, Seattle, WA

June 22, 2004 at the Muon Physics and Forward Upgrades Workshop, Santa Fe, NM

September 30 &
October 7 & 14,
2004 three talks at the Nuclear Theory Seminar, Department of Physics, The Ohio State University, Columbus, OH

October 29, 2004 at the APS Division of Nuclear Physics 2004 Fall Meeting, Chicago, IL

December 10, 2004 at the High Energy/Nuclear Physics Seminar Series, Department of Physics and Astronomy, Wayne State University, Detroit, MI

February 4, 2005 at the international conference on Contemporary Issues In Nuclear and Particle Physics (CINPP), Nuclear and Particle Physics Research Centre, Jadavpur University, Calcutta, India

February 9, 2005 at the 5th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP-2005), Saha Institute of Nuclear Physics/Variable Energy Cyclotron Centre Campus, Salt Lake City, Calcutta, India

March 7 & 11,
2005 discussion moderation and talk at the RIKEN BNL Research Center workshop on "Classical and Quantum Aspects of the Color Glass Condensate", Brookhaven National Laboratory, Upton, NY

April 27, 2005 virtual talk at the RHIC-II Forward & p-A Physics workshop at Brookhaven National Laboratory, Upton, NY

April 28, 2005 at the XIII International Workshop on Deep Inelastic Scattering (DIS2005), Madison, WI

August 5, 2005 at Quark Matter 2005, the 18th International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Budapest, Hungary

August 10, 2005 at the workshop on Quark-Gluon Plasma Thermalization, Vienna Technical University, Vienna, Austria

August 30, 2005 Nuclear Theory/RIKEN Seminar, Physics Department, Brookhaven National Laboratory, Upton, NY

September 14, 2005 Theoretical Quarks, Hadrons and Nuclei Research Group seminar, Department of Physics, University of Maryland, College Park, MD

September 29, 2005 at the "Odderon Searches at RHIC", RIKEN BNL Research Center workshop, Brookhaven

National Laboratory, Upton, NY

January 13, 2006 Kellogg Seminar, Kellogg Radiation Laboratory, California Institute of Technology, Pasadena, CA

February 28, 2006 virtual talk at the STAR Collaboration Meeting, Brookhaven National Laboratory, Upton, NY

April 24, 2006 Particles, Astrophysics, and Nuclear Physics Seminar, Physics Department, University of Connecticut, Storrs, CT

May 13, 2006 at the International Conference on Strong and Electroweak Matter (SEWM 2006), Brookhaven National Laboratory, Upton, NY

May 21, 2006 colloquium at the Raymond and Beverly Sackler Prize in the Physical Sciences award ceremony, Tel Aviv University, Tel Aviv, Israel

June 7, 2006 at the 2006 Gordon Research Conference on Nuclear Chemistry, Colby-Sawyer College, New London, NH

September 28, 2006 at the INT Workshop on Non-Equilibrium Quark-Gluon Plasma, Institute for Nuclear Theory, University of Washington, Seattle, WA

November 17, 2006 at the INT program “From RHIC to LHC: Achievements and Opportunities”, Institute for Nuclear Theory, University of Washington, Seattle, WA

December 12, 2006 at the international workshop on “High Energy Physics in the LHC Era”, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile

December 16, 2006 at the “QCD at High Energy” Session, QCD Workshop, Washington, DC

January 13, 2007 at the APS Division of Nuclear Physics: 2007 Long Range Plan Joint Town Meeting on Quantum Chromodynamics, Rutgers University, Piscataway, NJ

April 6, 2007 at the Electron-Ion Collider Collaboration Meeting, Massachusetts Institute of Technology, Laboratory for Nuclear Science, Cambridge, MA

May 14, 2007 at the “Light Cone 2007: Relativistic Hadronic and Nuclear Physics” conference, Department of Physics, The Ohio State University, Columbus, OH

May 25, 2007 at the workshop on “Exotic States of Hot and Dense Matter and their Dual Description”, Perimeter Institute for Theoretical Physics, Waterloo, Ontario, Canada

July 18, 2007 at the Conference on Early Time Dynamics in Heavy Ions, Department of Physics, McGill University, Montreal, Québec, Canada

September 27, 2007 two talks at DESY Theory Workshop 2007 “Quantum chromodynamics: string theory meets collider physics”, DESY, Hamburg, Germany

November 9, 2007 Nuclear Physics (Medium Energy) Seminar, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL

November 29, 2007 Nuclear Physics Seminar, Department of Physics and Astronomy, Iowa State University, Ames, IA

December 13, 2007 EIC Seminar, Physics Department, Brookhaven National Laboratory, Upton, NY

December 14, 2007 Nuclear Theory/RIKEN Seminar, Physics Department, Brookhaven National Laboratory, Upton, NY

May 13, 2008 MIT/CTP Particle/Nuclear Theory Seminar, Center for Theoretical Physics, Massachusetts Institute of Technology, Cambridge, MA

July 18, 2008 lecture on low- x physics at the PHENIX Collaboration Meeting, University of Illinois at Urbana-

Champaign, Urbana, IL

- September 13, 2008 at Diffraction 2008, International Workshop on Diffraction in High-Energy Physics, La Londe-les-Maures, France
- September 18, 2008 at the 38th International Symposium on Multiparticle Dynamics (ISMD2008), DESY, Hamburg, Germany
- September 20, 2008 Theory Summary talk, at the 38th International Symposium on Multiparticle Dynamics (ISMD2008), DESY, Hamburg, Germany
- September 30, 2008 Nuclear Physics Seminar, Institute of Nuclear and Particle Physics, Ohio University, Athens, OH
- October 15, 2008 Nuclear Theory Seminar, Stony Brook Center for Nuclear Theory, Department of Physics and Astronomy, Stony Brook University, Stony Brook, NY
- March 6, 2009 Seminar on *Shock Wave Collisions in AdS₅ and Thermalization in Heavy Ion Collisions*, Departamento de Fisica, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile
- March 9, 10, 11, 2009 three lectures on applications of AdS/CFT correspondence, Departamento de Fisica, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile
- April 2, 2009 plenary talk on *Early Time Dynamics in Heavy Ion Collisions from CGC and from AdS/CFT* at Quark Matter 2009, the 21st International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Knoxville, TN
- April 13, 2009 talk on *Heavy Quark Potential at Finite-T in AdS/CFT* at Dynamics of Symmetry Breaking, a workshop sponsored by the ANL/U. of Chicago Joint Theory Institute, Argonne National Laboratory, Argonne, IL
- April 23, 2009 talk on *McLerran-Venugopalan Model in AdS₅* at Quantum Field Theory in Extreme Environments: an international workshop and symposium to celebrate the 60th birthdays of Jean-Paul Blaizot and Larry McLerran, CEA Saclay, Paris, France
- June 1, 2009 talk on *Colliding Shock Waves in AdS₅* at the workshop on Baryon Stopping and Entropy Production, part of the RHIC & AGS Annual Users' Meeting, Brookhaven National Laboratory, Upton, NY
- June 12, 2009 lecture on *Thermal Medium in AdS/CFT* at the String Theory-Condensed Matter seminar, Department of Physics, The Ohio State University, Columbus, OH
- June 26, 2009 lecture on *Shear Viscosity in AdS/CFT* at the String Theory-Condensed Matter seminar, Department of Physics, The Ohio State University, Columbus, OH
- July 22, 2009 talk on *Shock Wave Collisions in AdS₅ and Implications for Heavy Ions* at the 6th International Symposium on Quantum Theory and Symmetries (QTS6), University of Kentucky, Lexington, KY
- October 7, 2009 HEP/Astrophysics Seminar on *Shock Wave Collisions in AdS₅ and in Real Life*, Physics Department, Pennsylvania State University, University Park, PA
- October 21, 2009 talk on *Running Coupling in Small-x Evolution* at the Physics at a High Energy Electron Ion Collider workshop, Institute for Nuclear Theory, University of Washington, Seattle, WA
- November 12, 2009 Theory Seminar on *Shock Wave Collisions in AdS₅ and in Real Life*, Physics Division, Argonne National Laboratory, Argonne, IL
- February 13, 2010 invited talk on *The Gauge-String Duality in Nuclear Collisions* in the *String Theory and Nuclear Collisions* Session, APS "April" Meeting 2010, Washington, DC
- February 25, 2010 String Theory seminar on *Heavy Ion Collisions in AdS₅*, Department of Physics and Astronomy,

University of Kentucky, Lexington, KY

- May 10, 2010 opening talk entitled *Introduction to the Physics of Saturation* at the workshop on *Saturation, the Color Glass Condensate and Glasma: What Have we Learned from RHIC?*, RIKEN BNL Research Center, Brookhaven National Laboratory, Upton, NY
- May 21, 2010 Physics Seminar on *Heavy Ion Collisions in AdS₅*, Weissman School of Arts and Sciences, Natural Sciences Department, Baruch College, The City University of New York, New York, NY
- June 3, 2010 talk on *Initial conditions from shock wave collisions in AdS* at the INT program “Quantifying the Properties of Hot QCD Matter” (INT-10-2A), Institute for Nuclear Theory, University of Washington, Seattle, WA
- August 10, 2010 invited talk on *Shock wave collisions and thermalization in AdS₅*, at the 25th Nishinomiya-Yukawa Memorial International Workshop *High Energy Strong Interactions* (HESI2010), Yukawa Institute for Theoretical Physics, Kyoto, Japan
- October 11, 2010 talk on *Heavy ion collisions in AdS₅* at the 4th International Conference on Hard and Electromagnetic Probes of High Energy Nuclear Collisions (Hard Probes 2010), Eilat, Israel
- October 11, 2010 moderation of the round table *Critical discussion on evidence for the CGC* at the 4th International Conference on Hard and Electromagnetic Probes of High Energy Nuclear Collisions (Hard Probes 2010), Eilat, Israel
- November 17, 2010 talk on *Small-x physics in DIS* at the workshop on “The Science Case for an EIC”, part of the INT program “Gluons and the quark sea at high energies: distributions, polarization, tomography” (INT-10-3), Institute for Nuclear Theory, University of Washington, Seattle, WA
- May 23, 2011 contributed talk on *Running coupling corrections to high energy inclusive gluon production* at Quark Matter 2011, the 22nd International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Annecy, France
- May 30, 2011 invited talk on *Running Coupling Corrections for Gluon Production in CGC* at the workshop on “Standard and novel QCD phenomena at hadron colliders”, European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy
- September 9, 2011 talk on *Running Coupling Corrections to Gluon Production* at the “High-energy QCD after the start of the LHC” workshop, Galileo Galilei Institute for Theoretical Physics (GGI), Florence, Italy

Conference Participation:

- August 19-30, 1996 XXIV SLAC Summer Institute on Particle Physics, *The Strong Interaction, From Hadrons to Partons*, Stanford Linear Accelerator Center, Stanford, CA
- October 23 –
November 9, 1996 Institute for Nuclear Theory, Program INT-96-3 : *Ultrarelativistic nuclei: From structure functions to the Quark-Gluon Plasma*, University of Washington, Seattle, WA
- May 27 –
June 4, 1997 CTEQ Summer School on QCD Analysis and Phenomenology, Interlaken Resort, Lake Como, WI
- July 6-16, 1997 RHIC '97 Summer Study, Brookhaven National Laboratory, Upton, NY
- July 14-25, 1997 RIKEN BNL Research Center Workshop on Perturbative QCD As A Probe of Hadron Structure, RIKEN BNL Research Center, Brookhaven National Laboratory, Upton, NY
- April 16-19, 1998 III workshop on Continuous Advances in QCD, Theoretical Physics Institute, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN

August 31 –
 September 11, 1998 International Workshop on Coherent QCD Processes with Nucleons and Nuclei, European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy

September 14-16,
 1998 Theory Institute on Deep-Inelastic Diffraction, Argonne National Laboratory, IL

September 17-20,
 1998 4th Workshop on Small- x and Diffractive Physics, Fermi National Accelerator Laboratory, IL

October 23, 1998 RHIC Physics and Beyond: Kay Kay Gee Day, Brookhaven National Laboratory, Upton, NY

January 7-9,
 1999 RHIC Winter Workshop, Nuclear Science Division, Lawrence Berkeley National Laboratory, Berkeley, CA

March 1-5, 1999 RIKEN BNL Research Center Workshop on Hard Parton Physics in High-Energy Nuclear Collisions, Brookhaven National Laboratory, Upton, NY

May 10-15, 1999 Quark Matter 99, XIV International Conference on Ultrarelativistic Nucleus–Nucleus Collisions, Turin, Italy

May 17-20, 1999 Heavy Ion Theory 99 workshop, CERN, Geneva, Switzerland

May 25-26, 1999 Physics with HERA as eA Collider Workshop, DESY, Hamburg, Germany

June 15-18, 1999 Workshop on Small x Physics, School of Physics and Astronomy, Tel Aviv University, Tel Aviv, Israel

October 20-23,
 1999 Fall Meeting of the APS Division of Nuclear Physics, Asilomar, CA

December 3-4,
 1999 eRHIC Workshop, Brookhaven National Laboratory, Upton, NY

April 6-8, 2000 the 2nd eRHIC Workshop, Yale University, New Haven, CT

April 25-30, 2000 DIS2000, 8th International Workshop on Deep-Inelastic Scattering and QCD, University of Liverpool, Liverpool, United Kingdom

June 26 –
 July 14, 2000 eRHIC Summer Meeting at Brookhaven National Laboratory, Upton, NY.

August 3 -5, 2000 QCD in a Nuclear Environment Workshop, Institut für Theoretische Physik, Universität Regensburg, Regensburg, Germany

September 14-16,
 2000 Second Workshop on Physics with a Polarized-Electron Light-ion Collider (EPIC), Massachusetts Institute of Technology, Cambridge, MA

January 15-20,
 2001 Quark Matter 2001, the Fifteenth International Conference on Ultra–Relativistic Nucleus–Nucleus Collisions, State University of New York at Stony Brook, Stony Brook, NY

May 21 - 25,
 2001 principal organizer, “High Energy QCD: Beyond the Pomeron” RIKEN BNL Research Center & BNL Nuclear Theory workshop, Brookhaven National Laboratory, Upton, NY

August 6 - 18, 2001 NATO Advanced Study Institute “QCD Perspectives on Hot and Dense Matter”, Cargese, Corsica, France

- September 4 - 7,
2001 International Workshop on the Physics of the Quark–Gluon Plasma, Ecole Polytechnique, Palaiseau, France
- January 9 - 11,
2002 Conference on the Phenomenology of Large N_c QCD, Arizona State University, Tempe, AZ
- February 28 –
March 2, 2002 The Electron Ion Collider Workshop, Brookhaven National Laboratory, Upton, NY
- June 14–15, 2002 Workshop on two-particle interferometry and elliptic flow at RHIC, Brookhaven National Laboratory, Upton, NY
- July 18–24, 2002 Quark Matter 2002, the XVI International Conference on Ultra–Relativistic Nucleus–Nucleus Collisions, Nantes, France
- July 22–27, 2002 TH-2002, International Conference on Theoretical Physics, UNESCO, Paris, France
- August 7–9, 2002 "Current and future directions at RHIC" RIKEN BNL Research Center Workshop, Brookhaven National Laboratory, Upton, NY
- October 14 - 25,
2002 "Coherent Effects at RHIC and LHC: Initial Conditions and Hard Probes" workshop, ECT*, Trento, Italy
- December 13 - 15,
2002 INT/RHIC Winter Workshop 2002 on First Two Years of RHIC: Theory versus Experiments (INT 02-27), Institute for Nuclear Theory, University of Washington, Seattle, WA
- February 19 - 22,
2003 "QCD and String Theory" workshop, Institute for Nuclear Theory, University of Washington, Seattle, WA
- March 6 - 8, 2003 "Transverse Dynamics at RHIC" workshop, Brookhaven National Laboratory, Upton, NY
- May 19 - 24, 2003 Conference on the Intersections of Particle and Nuclear Physics (CIPANP 2003), New York, NY
- September 17 - 20,
2003 Workshop on Small- x and Diffraction 2003, Fermi National Accelerator Laboratory, Batavia, IL
- October 29, 2003 workshop on "QCD, Confinement and Heavy-Ion Collisions", University of Arizona, Tucson, AZ
- October 30 –
November 1, 2003 2003 Fall Meeting of the Division of Nuclear Physics of the American Physical Society, University of Arizona, Tucson, AZ
- January 11 – 17,
2004 Quark Matter 2004, the Seventeenth International Conference on Ultra–Relativistic Nucleus–Nucleus Collisions, Oakland, CA
- April 14 – 18, 2004 XII International Workshop on Deep Inelastic Scattering (DIS2004), Štrbské Pleso, Slovakia
- May 13 – 16, 2004 workshop on Continuous Advances in QCD 2004, William I. Fine Theoretical Physics Institute, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN
- June 21 – 23, 2004 Muon Physics and Forward Upgrades Workshop, Santa Fe, NM
- October 27 – 30,
2004 APS Division of Nuclear Physics 2004 Fall Meeting, Chicago, IL
- November 19 – 20,

- 2004 RHIC II Science Workshop, Physics Department, Brookhaven National Laboratory, Upton, NY
- February 4 – 7,
2005 international conference on Contemporary Issues In Nuclear and Particle Physics (CINPP), Nuclear and Particle Physics Research Centre, Jadavpur University, Calcutta, India
- February 8 – 12,
2005 5th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP-2005), Saha Institute of Nuclear Physics/Variable Energy Cyclotron Centre Campus, Salt Lake City, Calcutta, India
- March 7 – 11,
2005 RIKEN BNL Research Center workshop on “Classical and Quantum Aspects of the Color Glass Condensate”, Brookhaven National Laboratory, Upton, NY
- April 27 –
May 1, 2005 XIII International Workshop on Deep Inelastic Scattering (DIS2005), Madison, WI
- August 4 – 9,
2005 Quark Matter 2005, the 18th International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Budapest, Hungary
- August 10 – 12,
2005 workshop on Quark-Gluon Plasma Thermalization, Vienna Technical University, Vienna, Austria
- September 26 - 29,
2005 co-organizer of the ”Odderon Searches at RHIC”, RIKEN BNL Research Center workshop, Brookhaven National Laboratory, Upton, NY
- May 10–13, 2006 the International Conference on Strong and Electroweak Matter (SEWM 2006), Brookhaven National Laboratory, Upton, NY
- June 4–9, 2006 the 2006 Gordon Research Conference on Nuclear Chemistry, Colby-Sawyer College, New London, NH
- September 25–29,
2006 the INT Workshop on Non-Equilibrium Quark-Gluon Plasma, Institute for Nuclear Theory, University of Washington, Seattle, WA
- September 25 –
December 8, 2006 INT program “From RHIC to LHC: Achievements and Opportunities”, Institute for Nuclear Theory, University of Washington, Seattle, WA
- December 11 – 15,
2006 the international workshop on “High Energy Physics in the LHC Era”, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile
- December 15 – 16,
2006 QCD Workshop, Washington, DC
- January 12 – 14,
2007 APS Division of Nuclear Physics: 2007 Long Range Plan Joint Town Meeting on Quantum Chromodynamics, Rutgers University, Piscataway, NJ
- April 6 – 7, 2007 the Electron-Ion Collider Collaboration Meeting, Massachusetts Institute of Technology, Laboratory for Nuclear Science, Cambridge, MA
- May 14 – 18, 2007 “Light Cone 2007: Relativistic Hadronic and Nuclear Physics” conference, Department of Physics, The Ohio State University, Columbus, OH

- May 22 – 25, 2007 the workshop on “Exotic States of Hot and Dense Matter and their Dual Description”, Perimeter Institute for Theoretical Physics, Waterloo, Ontario, Canada
- July 16 – 19, 2007 the Conference on Early Time Dynamics in Heavy Ions, Department of Physics, McGill University, Montreal, Québec, Canada
- August 4 - 9, 2007 37th International Symposium on Multiparticle Dynamics (ISMD2007), Lawrence Berkeley National Laboratory, Berkeley, CA
- September 25 – 28,
2007 DESY Theory Workshop 2007 “Quantum chromodynamics: string theory meets collider physics”, DESY, Hamburg, Germany
- September 9 - 14,
2008 Diffraction 2008, International Workshop on Diffraction in High-Energy Physics, La Londe-les-Maures, France
- September 15 - 20,
2008 38th International Symposium on Multiparticle Dynamics (ISMD2008), DESY, Hamburg, Germany
- March 30 – April 4,
2009 Quark Matter 2009, the 21st International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Knoxville, TN
- April 13 – 17,
2009 Dynamics of Symmetry Breaking, a workshop sponsored by the ANL/U. of Chicago Joint Theory Institute, Argonne National Laboratory, Argonne, IL
- April 23 – 25, 2009 Quantum Field Theory in Extreme Environments: an international workshop and symposium to celebrate the 60th birthdays of Jean-Paul Blaizot and Larry McLerran, CEA Saclay, Paris, France
- June 1, 2009 the workshop on Baryon Stopping and Entropy Production, part of the RHIC & AGS Annual Users’ Meeting, Brookhaven National Laboratory, Upton, NY
- July 20 – 25, 2009 the 6th International Symposium on Quantum Theory and Symmetries (QTS6), University of Kentucky, Lexington, KY
- October 19 – 23,
2009 Physics at a High Energy Electron Ion Collider workshop, Institute for Nuclear Theory, University of Washington, Seattle, WA
- October 23 – 25,
2009 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
- February 13 – 17,
2010 APS “April” Meeting 2010, Washington, DC
- May 10 – 12, 2010 the workshop on *Saturation, the Color Glass Condensate and Glasma: What Have we Learned from RHIC?*, RIKEN BNL Research Center, Brookhaven National Laboratory, Upton, NY
- May 24 – July 16,
2010 INT program “Quantifying the Properties of Hot QCD Matter” (INT 10-2A), Institute for Nuclear Theory, University of Washington, Seattle, WA
- August 2 – 13, 2010 the 25th Nishinomiya-Yukawa Memorial International Workshop *High Energy Strong Interactions (HESI2010)*, Yukawa Institute for Theoretical Physics, Kyoto, Japan
- October 10 – 15,

- 2010 the 4th International Conference on Hard and Electromagnetic Probes of High Energy Nuclear Collisions (Hard Probes 2010), Eilat, Israel
- November 16 – 19,
2010 workshop on “The Science Case for an EIC”, part of the INT program “Gluons and the quark sea at high energies: distributions, polarization, tomography” (INT-10-3), Institute for Nuclear Theory, University of Washington, Seattle, WA
- May 23 – 28,
2011 Quark Matter 2011, the 22nd International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Annecy, France
- May 30 – June 2,
2011 workshop on “Standard and novel QCD phenomena at hadron colliders”, European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy
- September 5 – 16,
2011 workshop on “High-energy QCD after the start of the LHC”, Galileo Galilei Institute for Theoretical Physics (GGI), Florence, Italy

Refereed Publications:

- [1] Yuri V. Kovchegov, *Non-Abelian Weizsäcker-Williams Field and a Two-Dimensional Effective Color Charge Density for a Very Large Nucleus*, hep-ph/9605446, Phys. Rev. D **54**, 5463 (1996).
- [2] Yuri V. Kovchegov, *Quantum Structure of the Non-Abelian Weizsäcker-Williams Field for a Very Large Nucleus*, hep-ph/9701229, Phys. Rev. D **55**, 5445 (1997).
- [3] Yuri V. Kovchegov, Dirk H. Rischke, *Classical Gluon Radiation in Ultrarelativistic Nucleus-Nucleus Collisions*, hep-ph/9704201, Phys. Rev. C **56**, 1084 (1997).
- [4] Yuri V. Kovchegov, A. H. Mueller, and Samuel Wallon, *Unitarity Corrections and High Field Strengths in High Energy Hard Collisions*, hep-ph/9704369, Nucl. Phys. **B 507**, 367 (1997).
- [5] Yuri V. Kovchegov, A. H. Mueller, *Gluon Production in Current-Nucleus and Nucleon-Nucleus Collisions in a Quasi-Classical Approximation*, hep-ph/9802440, Nucl. Phys. **B 529**, 451 (1998).
- [6] Yuri V. Kovchegov, A. H. Mueller, *Running Coupling Effects in BFKL Evolution*, hep-ph/9805208, Phys. Lett. B **439**, 428 (1998).
- [7] Yuri V. Kovchegov, *Small- x F_2 Structure Function of a Nucleus Including Multiple Pomeron Exchanges*, hep-ph/9901281, Phys. Rev. D **60**, 034008 (1999).
- [8] Yuri V. Kovchegov, Larry McLerran, *Diffraction Structure Function in a Quasi-Classical Approximation*, hep-ph/9903246, Phys. Rev. D **60**, 054025 (1999).
- [9] Yuri V. Kovchegov, *Unitarization of the BFKL Pomeron on a Nucleus*, hep-ph/9905214, Phys. Rev. D **61**, 074018 (2000).
- [10] Yuri V. Kovchegov, Eugene Levin, *Diffraction Dissociation Including Multiple Pomeron Exchanges in High Parton Density QCD*, hep-ph/9911523, Nucl. Phys. **B 577**, 221 (2000).
- [11] Yuri V. Kovchegov, Eugene Levin, Larry McLerran, *Large Scale Rapidity Correlations in Heavy Ion Collisions*, hep-ph/9912367, Phys. Rev. C **63**, 024903 (2001).
- [12] Dmitri Kharzeev, Yuri V. Kovchegov, Eugene Levin, *QCD Instantons and the Soft Pomeron*, hep-ph/0007182, Nucl. Phys. **A690**, 621 (2001).
- [13] Yuri V. Kovchegov, *Classical Initial Conditions for Ultrarelativistic Heavy Ion Collisions*,

- hep-ph/0011252, Nucl. Phys. **A692**, 557 (2001).
- [14] Dmitri Kharzeev, Yuri V. Kovchegov, Eugene Levin, *Instantons in the Saturation Environment*, hep-ph/0106248, Nucl. Phys. **A699**, 745 (2002).
- [15] Yuri V. Kovchegov, Mark Strikman, *Ioffe Time in Double Logarithmic Approximation*, hep-ph/0107015, Phys. Lett. B **516**, 314 (2001).
- [16] Yuri V. Kovchegov, *Diffraction Gluon Production in Proton–Nucleus Collisions and in DIS*, hep-ph/0107256, Phys. Rev. D **64**, 114016 (2001).
- [17] Yuri V. Kovchegov, Kirill Tuchin, *Inclusive Gluon Production in DIS at High Parton Density*, hep-ph/0111362, Phys. Rev. D **65**, 074026 (2002).
- [18] Yuri V. Kovchegov, Kirill Tuchin, *Elliptic Flow from Minijet Production in Heavy Ion Collisions*, hep-ph/0203213, Nucl. Phys. **A708**, 413 (2002).
- [19] Yuri V. Kovchegov, Kirill Tuchin, *Correlation Functions and Cumulants in Elliptic Flow Analysis*, nucl-th/0207037, Nucl. Phys. **A717**, 249 (2003).
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- [21] Kazunori Itakura, Yuri V. Kovchegov, Larry McLerran, Derek Teaney, *Baryon Stopping and Valence Quark Distribution at Small x* , hep-ph/0305332, Nucl. Phys. **A730**, 160 (2004).
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- [24] Dmitri Kharzeev, Yuri V. Kovchegov, Kirill Tuchin, *Nuclear Modification Factor in $d+Au$ Collisions: Onset of Suppression in the Color Glass Condensate*, hep-ph/0405045, Phys. Lett. B **599**, 23 (2004).
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- [29] Yuri V. Kovchegov, *Inclusive Gluon Production In High Energy Onium-Onium Scattering*, hep-ph/0508276, Phys. Rev. D **72**, 094009 (2005).
- [30] Yuri V. Kovchegov, Kirill Tuchin, *Production of $q\bar{q}$ Pairs in Proton–Nucleus Collisions at High Energies*, hep-ph/0603055, Phys. Rev. D **74**, 054014 (2006).
- [31] Anthony Kuhlman, Ulrich W. Heinz, Yuri V. Kovchegov, *Gluon Saturation Effects in Relativistic $U+U$ Collisions*, nucl-th/0604038, Phys. Lett. B **638**, 171 (2006).
- [32] Javier L. Albacete, Yuri V. Kovchegov, *Baryon Stopping in Proton-Nucleus Collisions*, hep-ph/0605053, Nucl. Phys. **A781**, 122 (2007).
- [33] Yuri V. Kovchegov and Heribert Weigert, *Triumvirate of Running Couplings in Small- x Evo-*

- lution, hep-ph/0609090, Nucl. Phys. **A784**, 188 (2007).
- [34] 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).
- [35] 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).
- [36] 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).
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- [38] Javier L. Albacete, Yuri V. Kovchegov, Anastasios Taliotis, *Modeling Heavy Ion Collisions in AdS/CFT*, arXiv:0805.2927 [hep-th], **JHEP** 0807:100 (2008).
- [39] 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).
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- [41] Yuri V. Kovchegov, Janne Kuokkanen, Kari Rummukainen, and Heribert Weigert, *Subleading- N_c Corrections in Non-Linear Small- x Evolution*, arXiv:0812.3238 [hep-ph], Nucl. Phys. **A823**, 47 (2009).
- [42] Javier L. Albacete, Yuri V. Kovchegov, Anastasios Taliotis, *Asymmetric Collision of Two Shock Waves in AdS₅*, arXiv:0902.3046 [hep-th], **JHEP** 0905:060 (2009).
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- [45] Yuri V. Kovchegov, Shu Lin, *Toward Thermalization in Heavy Ion Collisions at Strong Coupling*, arXiv:0911.4707 [hep-th], **JHEP** 1003:057 (2010).
- [46] 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).
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- [49] 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).
- [50] Yuri V. Kovchegov, *Running Coupling Corrections to Nonlinear Evolution for Diffractive Dissociation*, arXiv:1112.2598 [hep-ph], submitted to Phys. Lett. B.
- [51] Yuri V. Kovchegov, *AdS/CFT applications to relativistic heavy ion collisions: a brief review*, arXiv:1112.5403 [hep-ph], invited ‘Key Issue’ mini-review for Reports on Progress in Physics.
- [52] Yuri V. Kovchegov, Matthew D. Sievert, *A New Mechanism for Generating a Single Transverse Spin Asymmetry*, arXiv:1201.5890 [hep-ph], submitted to Phys. Rev. D.

Proceedings Contributions:

- [1] Yuri V. Kovchegov, *Non-Abelian Weizsäcker-Williams Field for a Very Large Nucleus*, Proceedings of the RHIC '97 Summer Study, Brookhaven National Laboratory.
- [2] Yuri V. Kovchegov, *Running Coupling Effects in Perturbative Pomeron*, Proceedings of the third workshop on Continuous Advances in QCD, Theoretical Physics Institute, University of Minnesota, 1998.
- [3] Yuri V. Kovchegov, *Running Coupling Corrections in the Perturbative Pomeron*, Proceedings of the Theory Institute on Deep-Inelastic Diffraction, Argonne National Laboratory, 1998.
- [4] Yuri V. Kovchegov, *Multiple Pomeron Exchanges in Nuclear Structure Functions*, Proceedings of RIKEN BNL Research Center Workshop on Hard Parton Physics in High-Energy Nuclear Collisions, 1999.
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- [6] Yuri V. Kovchegov, *QCD at High Parton Density*, Proceedings of DIS2000, 8th International Workshop on Deep-Inelastic Scattering, BNL-NT-00/16, 2000.
- [7] Yuri V. Kovchegov, *QCD at High Parton Density and QCD Instantons in the Soft Pomeron*, Proceedings of the Second Workshop on Physics with an Electron Polarized Ion Collider (EPIC), NT@UW-00-025 and NT@UW-00-026, 2000.
- [8] Yuri V. Kovchegov, *Saturation and Unitarity of Hadronic Structure Functions*, a chapter in *The THERA Book*, NT@UW-01-03, 2001.
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- [10] Yuri V. Kovchegov, *QCD Instantons and the Soft Pomeron*, Proceedings of "High Energy QCD: Beyond the Pomeron" RIKEN BNL Research Center & BNL Nuclear Theory workshop, 2001.
- [11] Yuri V. Kovchegov, *Classical Initial Conditions for Ultrarelativistic Nucleus-Nucleus Collisions*, Proceedings of the International Workshop on the Physics of the Quark-Gluon Plasma, Ecole Polytechnique, Palaiseau, France, NT@UW-01-024, 2001.
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- [13] Yuri V. Kovchegov, *Hard Diffraction in eA Collisions*, Proceedings of the Electron Ion Collider Workshop, February 28 - March 2, 2002, Brookhaven National Laboratory, Upton, NY, NT@UW-02-007.
- [14] Yuri V. Kovchegov, *Nuclear Parton Distribution Functions in Saturation Regime*, Report of the subgroup on "PDFs, shadowing and pA collisions", CERN Theory Workshop on "Hard Probes in Heavy Ion Collisions at the LHC", CERN, Geneva, Switzerland, March 11-15, 2002, NT@UW-02-013, hep-ph/0308248.
- [15] Yuri V. Kovchegov, *Particle Production in AA Collisions from Saturation Physics*, Proceedings of "Current and future directions at RHIC" RIKEN BNL Research Center Workshop,

NT@UW-02-024, 2002.

[16] Yuri V. Kovchegov, *Elliptic Flow from Parton Saturation*, Proceedings of Quark Matter 2002, XVI International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Nantes, France, 18-24 July, 2002, Nucl. Phys. **A715**, 891c (2003).

[17] Yuri V. Kovchegov, *Saturation Physics in Heavy Ion Collisions*, Proceedings of the Conference on the Intersections of Particle and Nuclear Physics (CIPANP 2003), New York, NY, May 19-24, 2003, NT@UW-03-020, hep-ph/0308076, AIP Conf. Proc. **698**, 685 (2004).

[18] Yuri V. Kovchegov, *Valence Quarks Distributions at Small- x and Saturation*, Proceedings of the Workshop on Small- x and Diffraction, Fermi National Accelerator Laboratory, Batavia, IL, September 17-20, 2003, NT@UW-03-027, <http://conferences.fnal.gov/smallx/index.html>.

[19] Yuri V. Kovchegov, *Cronin Effect Versus High- p_T Suppression in pA Collisions*, Proceedings of "High- p_T Physics at RHIC" RIKEN BNL Research Center Workshop, NT@UW-03-034, 2003.

[20] Yuri V. Kovchegov, *Cronin Effect and High- p_T Suppression in $p(d)A$ Collisions*, Proceedings of Quark Matter 2004, XVII International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Oakland, CA, January 11-17, 2004, NT@UW-04-005, J. Phys. G: Nucl. Part. Phys. **30**, S979 (2004).

[21] Yuri V. Kovchegov, *Perturbative QCD Odderon in the Dipole Model*, Proceedings of DIS2004, XII International Workshop on Deep Inelastic Scattering, p. 315, Štrbské Pleso, Slovakia, April 14-18, 2004, NT@UW-04-015.

[22] Yuri V. Kovchegov, *Saturation Physics Meets RHIC Data*, Proceedings of the workshop on Continuous Advances in QCD 2004, William I. Fine Theoretical Physics Institute, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN, May 13-16, 2004, NT@UW-04-016.

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[24] Yuri V. Kovchegov, *QCD Phenomenology and Heavy Ion Physics*, Proceedings of International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP-2005), Saha Institute of Nuclear Physics/Variable Energy Cyclotron Centre Campus, Salt Lake City, Calcutta, India, J. Phys. Conf. Ser. **50**, 79 (2006).

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[26] Yuri V. Kovchegov, *Particle Production in $p(d)A$ Collisions*, Proceedings of DIS2005, XIII International Workshop on Deep Inelastic Scattering, Madison, WI, April 27 – May 1, 2005, AIP Conf. Proc. **792**, 295 (2005).

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of the workshop on Quark-Gluon Plasma Thermalization, Vienna Technical University, Vienna, Austria, August 10-12, 2005, hep-ph/0510232, Eur. Phys. J. A **29**, 43 (2006), (refereed).

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[33] Javier L. Albacete, Yuri V. Kovchegov, Anastasios Taliotis, *AdS/CFT Correspondence in Heavy Ion Collisions*, Proceedings of the 38th International Symposium on Multiparticle Dynamics (ISMD2008), DESY, Hamburg, Germany, September 15 - 20, 2008.

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[38] Yuri V. Kovchegov, *Heavy Ion Collisions in AdS₅*, Proceedings of the 4th International Conference on Hard and Electromagnetic Probes of High Energy Nuclear Collisions (Hard Probes 2010), Eilat, Israel, October 10-15, 2010, arXiv:1011.0711 [hep-th], Nucl. Phys. **A855**, 237-240 (2011), (refereed).

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[40] W. A. Horowitz, Yuri V. Kovchegov, *Running Coupling Corrections to High Energy Inclusive Gluon Production*, Proceedings of Quark Matter 2011, the 22nd International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Annecy, France, May 23 - 28, 2011, arXiv:1106.5456 [hep-ph], accepted for publication in Journal of Physics G.

Teaching Experience:

- Fall 2011,
Winter 2012 “Quantum Field Theory I, & II”, a graduate-level class at the Ohio State University
- Fall 2010, Winter
and Spring 2011 “Quantum Field Theory I, II & III”, a graduate-level class at the Ohio State University
- Fall 2009, Winter
and Spring 2010 “Quantum Field Theory I, II & III”, a graduate-level class at the Ohio State University
- Winter
and Spring 2009 “Elementary Particle Physics I & II”, a graduate-level class at the Ohio State University
- Fall 2007, Winter
and Spring 2008 “Electromagnetic Field Theory I, II & III”, a graduate-level class at the Ohio State University
- Winter
and Spring 2007 “Electricity, Magnetism and Light”, an introductory undergraduate-level course at the Ohio State University
- Fall 2005, Winter
and Spring 2006 “Electromagnetic Field Theory I, II & III”, a graduate-level class at the Ohio State University
- Spring 2005 Special Topics advanced graduate-level class “Strong Interactions at High Energy” at the Ohio State University
- Fall 1997 Introductory Physics labs for undergraduate students at Columbia University
- Fall 1996 –
Spring 1997 Mechanics and E & M labs at Barnard College, Columbia University
- Spring 1996 prepared Modern Physics labs at Barnard College, Columbia University
- Fall 1995 Mechanics labs at Barnard College, Columbia University
- 1993 - 1995 Labs in Mechanics, Thermodynamics, E & M and Modern Physics at Columbia University

Outreach:

- May 7, 2009 a talk on Mechanics and Magnetism to girl-scout troop #799 aimed at helping them achieve a Science badge

Other relevant experience:

- Summer 1994 D0 experiment at Fermi National Accelerator Laboratory, Batavia, IL, summer student working with Professor M. Tuts