

Michael Strickland  
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Gettysburg College  
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# Curriculum Vitæ

## Biographical Data

- Born November 23, 1969, New York, NY
- US Citizen

## Educational Experience

- Duke University, Durham, NC, 1995 (MA Physics), 1997 (PhD Physics)
- University of North Carolina, Chapel Hill, NC, 1992 (BA Physics)
- North Carolina School of Science and Mathematics, Durham, NC, 1988

## Professional Experience

### *Positions*

Aug 2008-

- Physics Department, Gettysburg College; Assistant Professor.

Aug 2008-

- Frankfurt Institute for Advanced Studies, Frankfurt am Main, Germany; Adjunct Fellow.

Nov 2005-Aug 2008

- Frankfurt Institute for Advanced Studies and Institute for Theoretical Physics, Frankfurt am Main, Germany; Junior Fellow.

Nov 2004-Oct 2005

- Helsinki Institute of Physics, Helsinki, Finland; Research Scientist.

2002-Oct 2004

- Vienna Technical University, Vienna, Austria; Lise Meitner Fellow.

2001-2002

- Duke University, Durham, NC; Visiting Assistant Professor.

1999-2001

- University of Washington, Seattle, WA; Postdoctoral Research Associate.

1997-1999

- Ohio State University, Columbus, OH; Postdoctoral Research Associate.

1994-1997

- Duke University, Durham, NC; Research Assistant.

1992-1994

- Duke University, Durham, NC; Teaching Assistant.

### *Awards, Grants, and Fellowships*

KITP Scholar, 2010-2012

- Kavli Institute for Theoretical Physics (KITP) Scholar, University of California Santa Barbara

Lise Meitner Fellow, 2002-2004

- Austria National Science Foundation (FWF)

## Professional Experience (continued)

### Teaching Details

- Gettysburg College - Spring 2010 Teaching
- At Gettysburg, I am currently teaching Math Techniques for Physicists (Physics 255; Text: *Advanced Engineering Mathematics*, M. Greenberg) and a 2nd semester calculus-based introductory physics course (Physics 110 - Introductory Physics II; Text: *Physics for Scientists and Engineers with Modern Physics*, D.C. Giancoli).
- Gettysburg College - Past Teaching
- In the past I have taught:
    - Introductory Physics for non-science majors (Physics 101 - The Evolving Universe; Text: *Understanding Physics*, D. Cassidy, G. Holton, and J. Rutherford)
    - Modern Physics Laboratory (Physics 111L and 112L)
    - Math Techniques for Physicists (Physics 255; Text: *Advanced Engineering Mathematics*, M. Greenberg).
    - Classical Mechanics (Physics 319; Texts: *Mechanics*, K.R. Symon and *Classical Mechanics*, T.W.B. Kibble and F.H. Berkshire)
    - Advanced Electromagnetism (Physics 330 - Electromagnetism; Text: *Electromagnetic Fields*, R. Wangsness)
- Frankfurt - PhD Supervisor
- Through my adjunct fellowship in Frankfurt, I currently supervise the work of two Frankfurt PhD students: Mauricio Martinez-Guerrero and Nan Su. Previously, I supervised the work of Bjoern Schenke who is now a postdoc at McGill University in Montreal, Canada and Yun Guo who is now a postdoc at Brandon University in Manitoba, Canada.
- Lise Meitner Fellow
- Supervised work of then PhD student Paul Romatschke who is now a Research Assistant Professor at the Institute for Nuclear Theory in Seattle, Washington.
- Visiting Assistant Professor
- Taught graduate level general relativity course, Duke University, Fall 2001. Text: Wald.
- Teaching and Curriculum Development
- Undergraduate Teaching and Curriculum Development, Ohio State University Physics Education Research Group, 1997-1999.
- Private Physics Tutor
- Duke University and Rutgers University, 1994-1997.
- Teaching Assistant
- Graduate level Advanced Quantum Mechanics II, Spring 1994.
- Teaching Assistant
- Graduate level Advanced Quantum Mechanics I, Fall 1993.
- Teaching Assistant
- Undergraduate level E&M, Duke University, Spring 1993.
- Teaching Assistant
- Undergraduate level Mechanics, Duke University, Fall 1992.

## Professional Experience (continued)

### *Journal Referee*

- Physical Review Letters
- Physics Letters B
- Physical Review D
- Physical Review C
- Physical Review A
- Physics Letters B
- Nuclear Physics A
- Nuclear Physics B
- Journal of Physics G
- Journal of High Energy Physics
- International Journal of Modern Physics E
- Modern Physics Letters A

### Research Interests

- |                                |   |
|--------------------------------|---|
| Nuclear and High Energy Theory | <ul style="list-style-type: none"><li>• Heavy ion collisions/quark-gluon plasma (QGP)</li><li>• Finite temperature/density quantum field theory (QFT)</li><li>• Non-equilibrium field theory/QFT</li><li>• Diagrammatic and field-theoretic resummation methods</li><li>• Numerical solution of QCD Boltzmann-Vlasov equations</li><li>• Non-perturbative QFT</li></ul> |
| Astrophysics                   | <ul style="list-style-type: none"><li>• QCD equation of state at high-temperatures</li><li>• QCD equation of state at low-temperatures and high densities</li><li>• Thermalization and reheating of the universe</li></ul>  |
| Atomic Physics                 | <ul style="list-style-type: none"><li>• Bose-Einstein condensation</li><li>• Critical behavior of low-temperature atomic gases</li></ul>  |
| General                        | <ul style="list-style-type: none"><li>• Functional renormalization group methods</li></ul>  |

### Publications

#### *Refereed Journal Articles*

- |      |  |
|------|--|
| 1994 | • M. Strickland, Thermal photons and dileptons from non-equilibrium quark-gluon plasma, <i>Phys. Lett.</i> <b>B331</b> , 245 (1994).                                       |
| 1995 | • S.B. Liao and M. Strickland, Renormalization group approach to field theory at finite temperature, <i>Phys. Rev.</i> <b>D52</b> , 3653 (1995).                           |
| 1997 | • S.B. Liao and M. Strickland, Dimensional Crossover and Effective Exponents, <i>Nucl. Phys. B.</i> <b>497</b> , 611 (1997).   |
| 1998 | • S.B. Liao and M. Strickland, Scheme Independence of Blocking Transformation in Finite Temperature Renormalization Group, <i>Nucl. Phys.</i> <b>B532</b> , 3, 753 (1998). |

## Publications (continued)

- 1999
- J.O. Andersen and M. Strickland, Application of Renormalization Group Techniques to a Homogeneous Bose Gas at Finite Temperature, *Phys. Rev.* **A60**, 1442 (1999).
  - J.O. Andersen, E. Braaten, and M. Strickland, Hard-thermal-loop Resummation of the Free Energy of a Hot Gluon Plasma, *Phys. Rev. Lett.* **83**, 2139 (1999).
- 2000
- S.B. Liao, J. Polonyi, and M. Strickland, Optimization of Renormalization Group Flow, *Nuclear Physics* **B567**, 3, 493-514, (2000).
  - J.O. Andersen, E. Braaten, and M. Strickland, Hard-thermal-loop Resummation of the Thermodynamics of a Hot Gluon Plasma, *Phys. Rev.* **D61**, 14017 (2000).
  - J.O. Andersen, E. Braaten, and M. Strickland, Hard-Thermal-Loop Resummation of the Free Energy of a Hot Quark-Gluon Gas, *Phys. Rev.* **D61**, 74016 (2000).
  - J.O. Andersen, E. Braaten, and M. Strickland, The Massive Thermal Basketball Diagram, *Phys. Rev.* **D62**, 45004 (2000).
- 2001
- J.O. Andersen, E. Braaten, and M. Strickland, Screened Perturbation Theory to Three Loops, *Phys. Rev.* **D63**, 105008 (2001).
  - J.O. Andersen and M. Strickland, Mass Expansions of Screened Perturbation Theory, *Phys. Rev. D* **64**, 105012, (2001).
- 2002
- J.O. Andersen, E. Braaten, E. Petitgirard, and M. Strickland, HTL Perturbation Theory to Two Loops, *Phys. Rev.* **D66**, 085016 (2002).
  - J.O. Andersen and M. Strickland, The Equation of State for Dense QCD and Quark Stars, *Phys. Rev.* **D66**, 105001 (2002).
- 2003
- J.O. Andersen, E. Petitgirard, and M. Strickland, Two-loop HTL Perturbation Theory with Quarks, *Phys. Rev.* **D70**, 045001 (2004).
  - P. Romatschke and M. Strickland, Collective modes of an anisotropic quark-gluon plasma, *Phys. Rev.* **D68**, 036004 (2003).
- 2004
- P. Romatschke and M. Strickland, Energy loss of a heavy fermion in an anisotropic QED plasma, *Phys. Rev.* **D69**, 065005 (2004).
  - St. Mrówczyński, A. Rebhan, and M. Strickland, Hard-Loop Effective Action for Anisotropic Plasmas, *Phys. Rev.* **D70**, 024004 (2004).
  - J.O. Andersen and M. Strickland, Three-loop Phi-derivable Approximation in QED, *Phys. Rev. D* **71**, 025011 (2004).
  - P. Romatschke and M. Strickland, Collective Modes of an Anisotropic Quark-Gluon Plasma II, *Phys. Rev.* **70**, 116006 (2004).
- 2005
- J.O. Andersen and M. Strickland, Resummation in Hot Field Theories (Review), *Annals of Physics* **317/2**, 281 (2005).
  - P. Romatschke and M. Strickland, Collisional Energy Loss of a Heavy Quark in an Anisotropic Quark-Gluon Plasma, *Phys. Rev. D* **71**, 125008 (2005).
  - A. Rebhan, P. Romatschke and M. Strickland, Hard-Loop Dynamics of Non-Abelian Plasma Instabilities, *Phys. Rev. Lett.* **94**, 102303 (2005).
  - A. Rebhan, P. Romatschke and M. Strickland, Quark-Gluon-Plasma Instabilities in Discretized Hard-Loop Approximation, *Journal of High Energy Physics* **09**, 041 (2005).
- 2006
- B. Schenke, M. Strickland, C. Greiner, and M.H. Thoma, A model of the effect of collisions on QCD plasma instabilities, *Phys. Rev. D* **73**, 125004 (2006).
  - B. Schenke and M. Strickland, Fermionic Collective Modes of an Anisotropic Quark-Gluon Plasma, *Phys. Rev. D* **74**, 065004 (2006).

## Publications (continued)

- A. Dumitru, Y. Nara, and M. Strickland, Ultraviolet avalanche in anisotropic non-Abelian plasmas, *Phys. Rev. D* 75, 025016, (2007).
- 2007 • M. Strickland, Thermalization and the chromo-Weibel instability, *J. Phys. G* 34, S429 (2007).
- B. Schenke and M. Strickland, Photon production from an anisotropic quark-gluon plasma, *Phys. Rev. D* 76, 025023 (2007).
- M. Martinez and M. Strickland, Measuring QGP thermalization time with dileptons, *Phys. Rev. Lett.* 100, 102301 (2008).
- A. Dumitru, B. Schenke, Y. Nara, and M. Strickland, Jet broadening in unstable non-Abelian plasmas, *Phys. Rev. C* 78, 024909 (2008).
- A. Dumitru, Y. Guo, and M. Strickland, The heavy-quark potential in an anisotropic plasma, *Phys. Lett. B* 662, 37-42 (2008).
- 2008 • A. Rebhan, M. Strickland, and M. Attems, Instabilities of an anisotropically expanding non-Abelian plasma: 1D+3V discretized hard-loop simulations, *Phys. Rev. D* 78, 045023 (2008).
- M. Martinez and M. Strickland, Pre-equilibrium dilepton production from an anisotropic quark-gluon plasma, *Phys. Rev. C* 78, 034917 (2008).
- M. Martinez and M. Strickland, Suppression of forward dilepton production from an anisotropic quark-gluon plasma, *Eur. Phys. J. C* 61: 905-913 (2009).
- B. Schenke, M. Strickland, A. Dumitru, Y. Nara, and C. Greiner, Transverse momentum diffusion and jet energy loss in non-Abelian plasmas, *Phys. Rev. C* 79, 034903 (2009).
- 2009 • A. Dumitru, Y. Guo, A. Mócsy, and M. Strickland, Quarkonium states in an anisotropic QCD plasma, *Phys. Rev. D* 79, 054019 (2009).
- M. Martinez and M. Strickland, Constraining relativistic viscous hydrodynamical evolution, *Phys. Rev. C* 79, 044903 (2009).
- A. Dumitru, Y. Guo, and M. Strickland, The imaginary part of the static gluon propagator in an anisotropic (viscous) QCD plasma, *Phys. Rev. D* 79, 114003, (2009).
- M. Strickland and D. Yager-Elorriaga, A Parallel Algorithm for Solving the 3d Schrodinger Equation, arXiv:0904.0939 [quant-ph], (2009).
- J.O. Andersen, M. Strickland, and N. Su, Three-loop HTL Free Energy for QED, *Phys. Rev. D* 80, 085015 (2009).
- J.O. Andersen, M. Strickland, and N. Su, Gluon Thermodynamics at Intermediate Coupling, arXiv:0911.0676 (2009).
- M. Mannarelli, C. Manuel, S. Gonzalez-Solis, and M. Strickland, Jet energy loss in the quark-gluon plasma by stream instabilities, arXiv:0912.0165 (2009).
- 2010 • M. Martinez and M. Strickland, Matching pre-equilibrium dynamics and viscous hydrodynamics, *Phys. Rev. C* 81, 024906 (2010).

## *Refereed Proceedings*

- 1995 • M. Pichowsky, M. Strickland, and M. Kennedy, Two-body bound states & the Bethe-Salpeter equation, HUGS@CEBAF Proceedings, (1995).
- M. Strickland, Deuteron photodisintegration above pion threshold, HUGS@CEBAF Proceedings, (1995).

## Publications (continued)

- 1998
- J.O. Andersen and M. Strickland, Critical Behaviour of a Homogeneous Bose Gas at Finite Temperature, 5th Proceeding of the International Workshop on Thermal Field Theories and Their Applications, Regensburg, Germany, 10-14 Aug 1998.
  - M. Strickland, Non-Perturbative QED and QCD at Finite Temperature, Proceedings of the Fourth Workshop on Quantum Chromodynamics, 1-6 June 1998, The American University of Paris, Paris, France.
- 2000
- M. Strickland, Reorganizing Perturbation Theory - Part I. Scalar Theories, Proceedings of the Annual meeting of the APS Division of Particle and Fields Meeting, Ohio State University, October (2000).
  - M. Strickland, Reorganizing Perturbation Theory - Part II. Gauge Theories, Proceedings of the In and Out of Equilibrium Workshop, Brookhaven National Labs, October (2000).
- 2004
- P. Romatschke and M. Strickland, Progress in Anisotropic Plasma Physics, Proceedings of Strong and Electroweak Matter 2004, Helsinki, Finland, hep-ph/0408314 (2004).
- 2005
- M. Strickland, Hard-Loop Dynamics of Non-Abelian Plasma Instabilities, Contribution to Proceedings of Quark Matter 2005, Budapest, Hungary Aug 4-9, Nucl.Phys. A774 (2006) 779-782 (2005).
  - M. Strickland, Visualizing Color Plasma Instabilities, Contribution to Quark-Gluon-Plasma Thermalization Workshop, Vienna, Austria Aug 10-13, (2005).
- 2006
- M. Strickland, Thermalization and plasma instabilities, Proceedings contribution for invited talk at International Conference on Strong & Electroweak Matter 2006, Brookhaven National Laboratory, Upton, NY, Nucl. Phys. A785, 50 (2006).
  - M. Strickland, The chromo-Weibel instability, Proceedings contribution for an invited talk at the International Symposium on Multiparticle Dynamics, Paraty, Rio de Janeiro, Brazil, Sept 2-8 2006, Braz. J. Phys., June 2007, vol.37, no.2c, p.762-766 (2006).
  - M. Strickland, Thermalization and the chromo-Weibel instability, Invited plenary talk given at the 19th International Conference on Ultrarelativistic Nucleus-Nucleus Collisions: Quark Matter 2006 (QM 2006), Shanghai, China, 14-20 Nov, J. Phys. G: Nucl. Part. Phys. 34 S429-S435 (2006).
- 2008
- M. Martinez and M. Strickland, Dilepton production as a measure of QGP thermalization time, Contribution to 20th International Conference on Ultrarelativistic Nucleus-Nucleus Collisions: Quark Matter 2008 (QM 2008), Jaipur, India, J. Phys. G: Nucl. Part. Phys. 35 104162 (2008).
  - B. Schenke, A. Dumitru, Y. Nara and M. Strickland, QGP collective effects and jet transport, Contribution to 20th International Conference on Ultrarelativistic Nucleus-Nucleus Collisions: Quark Matter 2008 (QM 2008), Jaipur, India, J. Phys. G: Nucl. Part. Phys. 35 104109 (2008).
- 2009
- M. Martinez and M. Strickland, Constraining the onset of viscous hydrodynamics, Contribution to 21th International Conference on Ultrarelativistic Nucleus-Nucleus Collisions: Quark Matter 2009 (QM 2009), Knoxville, TN USA, Nuclear Physics A 830, 615c, arXiv:0907.3893 [hep-ph] (2009).
  - M. Strickland, N. Su and J. O. Andersen, QED Thermodynamics at Intermediate Coupling, Contribution to "Three Days of Strong Interactions", Wroclaw (Poland), arXiv:0910.3860 [hep-ph] (2009).
  - N. Su, J.O. Andersen, and M. Strickland, Hard-thermal-loop QED thermodynamics, arXiv:0911.4601 [hep-ph] (2009).

## Publications (continued)

### *Books*

- 1995 • Neural Networks: An Introduction, B. Müller, J. Reinhardt and M. Strickland, Springer-Verlag, 300 pp. (1995).

### *Dissertation*

- 1997 • M. Strickland, Dynamical Mass Generation and Confinement at Finite Temperature, PhD Dissertation, Duke University (1997).

### *Statistics* [Data taken from SLAC Spires Database (<http://www.slac.stanford.edu/spires/>) on Dec 17, 2009.]

- 48 published papers
- Average of 32 citations per paper
- Total number of citations : 1535

## Seminars (last 7 years)

- 2001 • Quasiparticle Excitations in Finite-Temperature QCD, University of Utrecht, Utrecht, The Netherlands, April 2001.
- Open Source Software Development Paradigms for Educational Software Development, American Association of Physics Teachers Meeting, Rochester, NY, July 2001.
- Variational Perturbation Theory, Duke University, Durham, NC, September 2001.
- 2002 • XML and the Apache Cocoon Project, **Invited Talk**, American Association of Physics Teachers Meeting, Philadelphia, PA, January 2002.
- Two-loop hard thermal loop perturbation theory, KITP Conference on QCD and Gauge Theory Dynamics in the RHIC Era, Institute of Theoretical Physics, University of California, Santa Barbara, CA, May 2002. **Invited Talk**.
- Hard thermal loop resummation of the equation of state for Hot QCD, Jyvaskyla University, Jyvaskyla, Finland, June 2002.
- Resumming the resummation, Duke University, September 2002.
- The equation of state for ultra-dense stellar objects, Vienna Technical University, Vienna, Austria, July 2002.
- Reorganizing finite temperature QCD perturbation theory, Vienna Technical University, Vienna, Austria, November 2002.
- Two-loop hard thermal loop perturbation theory, Brookhaven National Lab, New York, NY, December 2002.
- 2003 • Collective modes of an anisotropic QGP, Brookhaven National Lab, New York, NY, March 2003.
- Collective modes of an anisotropic QGP, University of Helsinki, Helsinki, Finland, June 2003.
- Energy loss and collective modes of an anisotropic QGP, University of Bielefeld, Bielefeld, Germany, November 2003
- Energy loss and collective modes of an anisotropic QGP, Polish Institute for Theoretical Physics, Warsaw, Poland, November 2003

## Seminars (last 7 years) (continued)

- 2004
- QGP Instabilities: A faster way to thermalize?, University of Virginia, Charlottesville, VA, USA, January 2004.
  - Collective Modes of an Anisotropic QGP, Ohio State University, Columbus, OH, USA, January 2004.
  - QGP Instabilities: A faster way to thermalize?, NORDITA, Copenhagen, Denmark, March 2004.
  - Collective Modes of an Anisotropic QGP, Helsinki University, Strong and Electroweak Matter Meeting, Helsinki, June 2004.
  - QGP Instabilities: A faster way to thermalize?, Institut für Theoretische Physik, Johann Wolfgang Goethe-Universität, July 2004.
  - Instability driven thermalization of a Quark Gluon Plasma, CERN Theory Division, Invited Seminar, Oct 2004.
  - Improving the convergence of finite temperature field theory, University of Helsinki, November 2004.
- 2005
- Instability-driven thermalization of a QGP, University of Helsinki, January 2005.
  - Instability-driven thermalization of a QGP, NORDITA, Copenhagen, January 2005.
  - Probing the early universe using relativistic heavy ion collisions, Colloquium, NORDITA, Copenhagen, January 2005.
  - Hard-loop dynamics of non-abelian plasma instabilities, Johann Wolfgang Goethe-Universität, Frankfurt am Main, June 2005.
  - Dynamics of quark-gluon plasma instabilities in discretized hard-loop approximation, Quark Matter Meeting, Budapest, Hungary, August 2005.
  - Hard-loop dynamics of non-abelian plasma instabilities, Vienna QGP Thermalization Workshop, Vienna, Austria, August 2005. **Invited Talk**
  - Dynamics of quark-gluon plasma instabilities in discretized hard-loop approximation, Jyväskylä University, Jyväskylä, Finland, October 2005.
- 2006
- Non-abelian plasma instabilities, Brookhaven National Labs, Upton, NY, January 2006.
  - Non-abelian plasma instabilities, NC State University, Raleigh, NC, January 2006.
  - Non-abelian plasma instabilities, Stony Brook University, Stony Brook, NY, January 2006.
  - Non-abelian plasma instabilities, Columbia University, New York, NY, January 2006.
  - Non-abelian plasma instabilities, Strong and Electroweak Matter 2006, BNL, New York, NY, May 2006. **Invited Talk**
  - Non-abelian plasma instabilities, Fifth International Conference on PERSPECTIVES IN HADRONIC PHYSICS Particle-Nucleus and Nucleus-Nucleus Scattering at Relativistic Energies, ICTP, Trieste, Italy, May 2006. **Invited Talk**
  - QCD Plasma Instabilities and the Onset of Thermalization of a QGP, Heavy Ion Reactions at Ultrarelativistic Energies, ECT\*, Trento, Italy, June 2006.
  - Non-abelian plasma instabilities, XXXVI International Symposium on Multiparticle Dynamics, Paraty, Brazil, September 2006. **Plenary Talk**
  - Simulating non-equilibrium glue, Rio de Janeiro Federal University, Rio de Janeiro Brazil, September 2006.
  - Simulating non-equilibrium glue, INT Workshop on Non-equilibrium quark-gluon plasma, Seattle, Washington, September 2006. **Invited Talk**
  - Simulating non-equilibrium glue, Relativistic Nuclear Matter Workshop, GSI, Darmstadt, Germany, November 2006. **Invited Talk**

## Seminars (last 7 years) (continued)

- Non-equilibrium quark-gluon plasma, STAR Collaboration Meeting, Hefei, China, November 2006. **Invited Talk**
  - Thermalization via Instabilities, Quark Matter 2006, Shanghai, China, November 2006. **Ple-nary Talk**
- 2007
- Simulating Nonequilibrium Glue, High energy QCD, ECT\*, Trento, Italy, January 2007. **In-vided Talk**
  - Non-equilibrium plasmas: Dynamics and Signatures, Latest Results On QGP Collective Prop-erties, Frankfurt, Germany, February 2007. **Invited Talk**
  - Calculating observables from a non-equilibrium plasma, High Density QCD, Galileo Galilei Institute for Theoretical Physics, Florence, Italy, February 2007. **Invited Talk**
  - Numerical Simulations of Non-Equilibrium Plasmas, Laboratoire de Physique Théorique, Université de Paris, Paris, March 2007. **Invited Lecture Series**
  - Signatures of plasma instabilities and anisotropies, Heavy Ion Perspectives, Bad Liebenzell, Germany, September 2007. **Invited Talk**
  - QGP collective effects on jet transport, American Physical Society Division of Nuclear Physics Annual Meeting, Newport News, VA USA, October 2007. **Invited Talk**
  - QGP collective effects on jet transport, Instituto de Ciencias del Espacio, Fac. de Ciencias, Barcelona, Spain, November 2007.
  - Collective effects in a non-equilibrium QGP, Baruch, College, New York, NY, December 2007.
- 2008
- Non-abelian plasma instabilities, Kavli Institute for Theoretical Physics, Santa Barbara, CA, January 2008. **Invited Talk**
  - Using electromagnetic observables to determine QGP thermalization time, Kavli Institute for Theoretical Physics, Santa Barbara, CA, February 2008. **Invited Talk**
  - Measuring QGP thermalization time with dileptons, Lawrence Berkeley National Labs, Berke-ley, CA, February 2008.
  - QCD at Extreme Conditions, Gettysburg College, Gettysburg, PA, February 2008.
  - Measuring QGP thermalization time with dileptons, Kavli Institute for Theoretical Physics, Santa Barbara, CA, February 2008. **Invited Talk**
  - QCD at Extreme Conditions, Lehmann College, New York, NY, March 2008.
  - Non-abelian plasma instabilities, The City University of New York, New York, NY, March 2008.
  - Measuring QGP thermalization time with high-energy dileptons, Hard Probes 08, Galicia-Illa Toxa, June 2008.
  - Instabilities of an anisotropically expanding non-Abelian plasma: 1D+3V discretized hard-loop simulations, Yukawa Institute for Theoretical Physics, Kyoto, Japan, August 2008. **In-vided Talk**
  - Instabilities of an anisotropically expanding non-Abelian plasma: 1D+3V discretized hard-loop simulations, McGill University, September 2008.
  - Measuring QGP thermalization time with high-energy dileptons, Relativistic Aspects of Nu-clear Physics, Rio de Janeiro, Brazil, November 2008. **Invited Talk**
  - Instabilities of an anisotropically expanding non-Abelian plasma, Instituto de Física Teórica, São Paulo, Brazil, November 2008.
- 2009
- Dynamics of Turbulent Color Fields, Extreme Scale Computing Workshop Series, Forefront Questions in Nuclear Science and the Role of High Performance Computing, January 2009. **Invited Talk**
  - A Parallel Algorithm for Solving the 3d Schrödinger Equation, Frankfurt Institute for Ad-vanced Studies, June 2009.
  - Three-loop HTL Free Energy for QED, Three Days of Strong Interactions, Wroclaw, Poland, July 2009.
  - The Phenomenology of non-Abelian Plasma Instabilities, Vienna University of Technology, Vienna, Austria, August 2009.

## Seminars (last 7 years) (continued)

- Reorganizing the QCD pressure at intermediate coupling, University of Virginia, Charlottesville, VA, October 2009.
  - Reorganizing the QCD pressure at intermediate coupling, Ohio State University, Columbus, OH, November 2009.
- 2010
- Reorganizing the QCD pressure at intermediate coupling, Norwegian Winter Workshop on QCD at Extreme Conditions, Trondheim, Norway, February 2010. **Invited Talk**

## Conference Organization

- 2007
- Co-organizer, Early Time Dynamics in Heavy Ion Collisions, Montreal, July 16th-19th, 2007 McGill University, Montreal, Canada.

## References

Dr. Peter Arnold  
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