

W. A. Horowitz

Curriculum Vitae

August 29, 2012

Department of Physics
University of Cape Town
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Education:

Ph.D. in Physics, Columbia University	2008
Thesis Advisor: Miklos Gyulassy	
Thesis title: <i>Probing the Frontiers of QCD</i>	
M.Phil. in Physics, Columbia University	2007
M.A. in Physics, Columbia University	2005
B.S. in Physics, Summa Cum Laude, Georgia Institute of Technology	2003

Research Positions:

Postdoctoral Researcher , The Ohio State University	2008-2010
Advisor: Yuri V. Kovchegov	

Faculty Positions:

Lecturer , University of Cape Town	2010-present
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Visiting Positions and Extended Workshops:

INT: Gluons and the Quark Sea at High Energies	2010
INT: Quantifying the Properties of Hot QCD Matter	2010
Aspen Center for Physics	2009
Frankfurt Institute for Advanced Studies (FIAS)	2006-2007

Awards:

Finalist for the NSTF BHP-Billiton Emerging Researcher Award	2012
Best Student Talk, <i>Strange Quark Matter 2007</i>	2007
E. Higgins Scholarship, Columbia University	2003-2005
Outstanding Graduating Senior in Physics, Georgia Institute of Technology	2003
Hope Scholarship, Georgia Institute of Technology	1999-2002

Professional Service:

Chair of the Local Organizing Committee for the “6 th <i>International Conference on Hard and Electromagnetic Probes (Hard Probes 2013)</i> ,” Cape Town, South Africa	November, 2013
Local Organizer for the 2 nd <i>Biennial International Workshop on Discovery Physics at the LHC (Kruger2012)</i> , Kruger National Park, South Africa	December, 2012
Lecturer for the 22 nd <i>Jyväskylä Summer School</i> Jyväskylä, Finland	August, 2012
Judge for Student Awards, 57 th <i>Annual Conference of the South African Institute of Physics</i> , Pretoria, South Africa	July, 2012
Convenor for the 11 th <i>Conference on the Intersections of Particle and Nuclear Physics (CIPANP2012)</i> , St. Petersburg, FL, USA	June 2012
Chair of the Organizing Committee for the <i>Exploring QCD Frontiers: from RHIC and LHC to EIC (CPTEIC) Workshop</i> , Stellenbosch, South Africa	January 2012
Organizer for Nuclear Physics seminars at Ohio State	2009-2010
Organizer for <i>AdS/CFT Day at Columbia</i> , or <i>AdS Strings Intersect with Nuclear Beams at Columbia</i>	October 2007
Organizer for <i>Yale-Columbia Fest 2007</i>	January 2007

Memberships and Collaborations:

NITheP Associate
 Member of SA-CERN
 Senior Group Member of UCT-CERN
 Associate Member of the JET Collaboration

Editorial Activities:

Refereed for *Acta Physica Hungarica*, the *Journal of High Energy Physics (JHEP)*, the *Journal of Physics G*, the *New Journal of Physics*, *Physical Review C*, *Physical Review D*, *Reports on Progress in Physics*

Grants and Rating:

NRF Rating of Y1	
NRF Incentive Grant for R40,000	2012
University Research Committee Block Grant for R5,655	2012
Fulbright Specialist at UCT won for Prof. Raju Venugopalan	2012

NITheP Visitor's Program Grant for R10,000	2012
Grants for the CPTEIC Workshop:	(All 2012)
NITheP Grant for R110,000	
NRF KIC Grant for R40,000	
Support from Jefferson Laboratory for \$5,000	
Support from Brookhaven National Laboratory for \$3,000	
Carnegie Research Development Grant for R30,000	2011
Research Development Grant for R6,919	2011
University Research Committee Block Grant for R6,892	2011
University Research Committee Start-Up Grant for R20,000	2011

Publications:

1. Nestor Armesto *et al.*, *Comparison of Jet Quenching Formalisms for a Quark-Gluon Plasma 'Brick'*, arXiv:[1106.1106](#) [hep-ph] (Submitted to Phys. Rev. C)
2. W. A. Horowitz and Miklos Gyulassy, *The Surprising Transparency of the sQGP at LHC*, *Nucl. Phys.* **A872**, 265 (2011) [arXiv:[1104.4958](#) [hep-ph]]
3. Jiangyong Jia, W. A. Horowitz, and Jinfeng Liao, *A study of the correlations between jet quenching observables at RHIC*, *Phys. Rev.* **C84**:034904 (2011) [arXiv:[1101.0290](#) [nucl-th]]
4. W. A. Horowitz and Yuri V. Kovchegov, *Running Coupling Corrections to High Energy Inclusive Gluon Production*, *Nucl. Phys.* **A849**:72-97 (2011) [arXiv:[1009.0545](#) [hep-ph]]
5. W. A. Horowitz and B. A. Cole, *Systematic Uncertainties in Theoretical Predictions of Jet Quenching*, *Phys. Rev.* **C81**:024909 (2010) [arXiv:[0910.1823](#) [hep-ph]]
6. W. A. Horowitz and Yuri V. Kovchegov, *Shock Treatment: Heavy Quark Drag in a Novel AdS Geometry*, *Phys. Lett. B* **680**:56-61 (2009) [arXiv:[0904.2536](#) [hep-th]]
7. N. Armesto *et al.*, *Heavy Ion Collisions at the LHC - Last Call for Predictions*, *J. Phys. G* **35**, 054001 (2008) [arXiv:[0711.0974](#) [hep-ph]]. Contributed:
 - W. A. Horowitz, *Ratio of charm to bottom R_{AA} as a test of pQCD vs. AdS/CFT energy loss*, arXiv:[0710.0595](#) [hep-ph]
8. W. A. Horowitz, M. Gyulassy, *Testing AdS/CFT deviations from pQCD heavy quark energy loss with Pb+Pb at LHC*, *Phys. Lett. B* **666**, 320 (2008) [arXiv:[0706.2336](#) [nucl-th]]
9. A. Adil, M. Gyulassy, W. A. Horowitz, S. Wicks, *Collisional Energy Loss of Non Asymptotic Jets in a QGP*, *Phys. Rev.* **C75**:044906 (2007) [arXiv:[nucl-th/0606010](#)]

10. Simon Wicks, William Horowitz, Magdalena Djordjevic, Miklos Gyulassy, *Elastic, Inelastic, and Path Length Fluctuations in Jet Tomography*, *Nucl. Phys.* **A784**:426-442 (2007) [arXiv:nucl-th/0512076]

Books:

1. Daniel Boer *et al.*, eds., *Gluons and the quark sea at high energies: distributions, polarization, tomography*, arXiv:1108.1713 [nucl-th]
 - W. A. Horowitz, *Gluon Density in $e+A$: KLN, CGC, DGLAP Glauber, or Neither?*
 - W. A. Horowitz, *Gluon Tomography in Nuclei - The Heavy Ion Collision Initial State*

Proceedings:

1. W. A. Horowitz, *Testing pQCD and AdS/CFT Energy Loss at RHIC and LHC*, to appear in the proceedings for the 19th Particles & Nuclei International Conference (PANIC2011), *AIP Conf.Proc.* **1441** (2012) 889-891 [arXiv:1108.5876 [hep-ph]]
2. W. A. Horowitz and Miklos Gyulassy, *Quenching and Tomography from RHIC to LHC*, *J. Phys.* **G38**, 124114 (2011) [arXiv:1107.2136 [hep-ph]]
3. W. A. Horowitz and Yuri V. Kovchegov, *Running coupling corrections to inclusive gluon production*, *J. Phys.* **G38**, 124064 (2011) [arXiv:1106.5456 [hep-ph]]
4. W. A. Horowitz, *Qualitative and Quantitative Jet Physics in Pb + Pb at LHC*, *PoS KRUGER2010* (2011) 060, arXiv:1103.3018 [hep-ph]
5. W. A. Horowitz, *Qualitative and Quantitative Energy Loss?*, *Nucl. Phys.* **A855**:225-228 (2011) [arXiv:1011.5965 [hep-ph]]
6. W. A. Horowitz, *Shock Treatment: Heavy Quark Energy Loss in a Novel AdS/CFT Geometry*, *Nucl. Phys. A* **830**, 773C (2009) [arXiv:0907.4845 [nucl-th]]
7. W. A. Horowitz, *Testing AdS/CFT at LHC*, *PoS High-pT physics09:043,2009* [arXiv:0905.0504 [hep-ph]]
8. W. A. Horowitz, *0th Order Heavy Quark Photon Bremsstrahlung*, to appear in the proceedings for the 24th Winter Workshop on Nuclear Dynamics, arXiv:0806.3092 [nucl-th]
9. W. A. Horowitz and M. Gyulassy, *Testing AdS/CFT Drag and pQCD Heavy Quark Energy Loss*, *J. Phys. G* **35**, 104152 (2008) [arXiv:0804.4330 [hep-ph]]

10. W. A. Horowitz, *pQCD vs. AdS/CFT Tested by Heavy Quark Energy Loss*, *J. Phys. G* **35**, 044025 (2008) [arXiv:0710.0703 [nucl-th]]
11. William A. Horowitz, *LHC Predictions from an extended theory with Elastic, Inelastic, and Path Length Fluctuating Energy Loss*, *Int. J. Mod. Phys. E* **16**, 2193-2199 (2007) [arXiv:nucl-th/0702084]
12. Simon Wicks, William Horowitz, Magdalena Djordjevic, Miklos Gyulassy, *Heavy quark jet quenching with collisional plus radiative energy loss and path length fluctuations*, *Nucl. Phys. A* **783**:493-496 (2007) [arXiv:nucl-th/0701063]
13. William Horowitz, *Overcoming Fragility*, *Nucl. Phys. A* **783**:543-546 (2007) [arXiv:nucl-th/0610024]
14. W. A. Horowitz, *Large Observed v_2 as a Signature for Deconfinement*, *Acta Phys. Hung. A* **27**:221-225, 2006 [arXiv:nucl-th/0511052]

Colloquia:

1. *Studying Hot Many Body QCD*, University of Pretoria: Pretoria, South Africa (June, 2012)
2. *High- p_T Probes of Heavy Ion Collisions?*, Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (June, 2012)
3. *Phenomenology of the Quark-Gluon Plasma*, The University of Tennessee: Knoxville, TN (September, 2010)
4. *Successes, Failures, and Uncertainties in the Jet Physics of Heavy Ion Collisions*, The University of Cape Town: Cape Town, South Africa (February, 2010)
5. *RHIC High- p_T Physics*, Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (October, 2006)

Seminars:

1. *Studying Hot Many Body QCD*, University of Johannesburg: Johannesburg, South Africa (June, 2012)
2. *Studying Hot Many Body QCD*, University of the Witwatersrand: Johannesburg, South Africa (June, 2012)
3. *High- p_T Probes of Heavy Ion Collisions?*, CERN Heavy Ion Physics Seminar, CERN: Geneva, Switzerland (June, 2012)

4. *High- p_T Probes of Heavy Ion Collisions?*, EMMI at GSI Seminar, Gesellschaft für Schwerionenforschung mbH (GSI): Darmstadt, Germany (June, 2012)
5. *Energy Loss Calculations, RHIC, and First Results from LHC*, Center for Theoretical Physics Seminar, Massachusetts Institute of Technology: Cambridge, MA, USA (July, 2011)
6. *Energy Loss Calculations, RHIC, and First Results from LHC*, Nuclear Theory Seminar, The Ohio State University: Columbus, OH, USA (July, 2011)
7. *Gluon Tomography with EVMP*, EIC Task Force Meeting: Upton, New York (June, 2011)
8. *Phenomenology of the Quark-Gluon Plasma*, The UCT Astrophysics, Cosmology and Gravity Centre (ACGC) Seminar: Cape Town, South Africa (April, 2011)
9. *Phenomenology of the Quark-Gluon Plasma*, Wits Theory Seminar, University of the Witwatersrand: Johannesburg, South Africa (March, 2011)
10. *RHIC in the Age of the LHC*, Nuclear Physics Seminar, Brookhaven National Laboratory: Upton, NY (August, 2010)
11. *Heavy Ion Physics at RHIC and LHC*, Nuclear Physics Seminar, The University of Tennessee: Knoxville, TN (July, 2010)
12. *Uncertainties and Consistency (?) in pQCD and AdS/CFT Jet Physics*, Special Seminar, Columbia University: New York, NY (March, 2010)
13. *Successes, Failures, and Uncertainties in Jet Physics in Heavy Ion Collisions*, WSU Nuclear Physics Seminar, Wayne State University: Detroit, MI (March, 2010)
14. *Successes, Failures, and Uncertainties in Jet Physics in Heavy Ion Collisions*, ISU Nuclear Physics Seminar, Iowa State University: Ames, IA (February, 2010)
15. *Jet Energy Loss with pQCD and AdS/CFT in Heavy Ion Collisions*, HIP Seminar, The Helsinki Institute of Physics: Helsinki, Finland (February, 2010)
16. *Successes, Failures, and Uncertainties in Jet Physics in Heavy Ion Collisions*, Theory Seminar, The University of Jyväskylä: Jyväskylä, Finland (February, 2010)
17. *Heavy Ion Collisions with pQCD and AdS/CFT*, Nuclear Theory Seminar, The Lawrence Berkeley National Laboratory: Berkeley, CA (January, 2010)
18. *The Success of AdS in Heavy Ion Collisions*, Special Seminar, Stony Brook University: Stony Brook, NY (December, 2009)

19. *Heavy Ion Collisions with pQCD and AdS/CFT*, UW Particle Theory Seminar, the University of Washington: Seattle, WA (November, 2009)
20. *String Theory Meets Field Theory in Heavy Ion Collisions*, OSU Nuclear Seminar, The Ohio State University: Columbus, OH (October, 2009)
21. *pQCD and AdS/CFT in Heavy Ion Collisions*, Institute of Nuclear & Particle Physics, Ohio University: Athens, OH (September, 2009)
22. *pQCD and AdS/CFT in Heavy Ion Collisions*, High Energy Physics Seminar, Purdue University: West Lafayette, IN (September, 2009)
23. *An Introduction to AdS/CFT and Heavy Ion Phenomenology*, The Aspen Center for Physics: Aspen, CO (May, 2009)
24. *Theoretical Thoughts on Energy Loss at RHIC and LHC*, The University of Colorado at Boulder: Boulder, CO (May, 2009)
25. *Testing String Theory with Jets*, Nuclear Theory Seminar, The Ohio State University: Columbus, OH (November, 2008)
26. *Testing AdS/CFT Drag and pQCD Heavy Quark Energy Loss*, Nuclear Theory Seminar, McGill University: Montréal, Canada (October, 2008)
27. *Falsifying AdS/CFT Drag or pQCD Heavy Quark Energy Loss with A+A at RHIC and LHC*, Nuclear Seminar, The Ohio State University: Columbus, OH (January, 2008)
28. *Falsifying AdS/CFT Drag or pQCD Heavy Quark Energy Loss with A+A at RHIC and LHC*, Nuclear Theory Group Seminar, Texas A&M University: College Station, TX (November, 2007)
29. *pQCD vs. AdS/CFT Tested by Heavy Quark Energy Loss*, Nuclear Physics & RIKEN Theory Seminar, Brookhaven National Laboratory: Upton, NY (August, 2007)
30. *Identified Charm and Bottom Jets to Test pQCD vs. AdS/CFT Energy Loss*, Los Alamos P-25 Seminar, Los Alamos National Laboratory: Los Alamos, NM (August, 2007)
31. *Possible String Theoretic Deviations from pQCD in Heavy Quark Energy Loss at LHC*, Seminar at the CERN Heavy Ion Forum, CERN: Geneva, Switzerland (May, 2007)
32. *Surface or Volume Emission at RHIC: Is Jet Tomography Possible?*, Sonderkolloquium [Special Seminar], Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (September, 2006)

Plenaries:

1. *Heavy quark production and energy loss*, at *The XXIII International Conference on Ultrarelativistic Nucleus-Nucleus Collisions (Quark Matter)*, Omni Shoreham Hotel: Washington, D.C. (August, 2012)
2. *Systematic Theoretical Uncertainties in Jet Quenching Due to Gluon Kinematics*, at the *Joint TECHQM/CATHIE Workshop*, Brookhaven National Laboratory: Upton, NY (December, 2009)

Invited Talks:

1. *Do We Understand Energy Loss? The Critical Mass Dependence Test*, International MUON Workshop 2012: iThembaLABS, South Africa (May, 2012)
2. *Calculation of Energy Loss in AA Collisions*, High- p_T Probes of High Density QCD at LHC 2011 (HPHD2011) at École Polytechnique: Palaiseau, France (May, 2011)
3. *Phenomenology of the Quark-Gluon Plasma*, National Institute of Theoretical Physics (NITheP) Associates Meeting: Stellenbosch, South Africa (April, 2011)
4. *Testing Energy Loss and the Pion Puzzle (?) at LHC*, 6th International Workshop on High- p_T Physics at LHC 2011: Utrecht, Netherlands (April, 2011)
5. *The EIC, Heavy Quarks, and QGP Phenomenology*, Gluons and the quark sea at high energies at the Institute for Nuclear Theory: Seattle, WA (October, 2010)
6. *Heavy Ion Physics and Electron Ion Colliders*, Electron-Ion Collider Collaboration Meeting at the Catholic University of America: Washington, DC (July, 2010)
7. *Energy Loss Mechanisms and Jet Physics*, PHENIX Collaboration Meeting at Iowa State University: Ames, IA (July, 2010)
8. *RHIC Challenges and LHC Outlook*, Quantifying the Properties of Hot QCD Matter at the Institute for Nuclear Theory: Seattle, WA (June, 2010)
9. *Theory Comparisons*, JET Collaboration Meeting, Lawrence Berkeley National Laboratory: Berkeley, CA (June, 2010)
10. *Theory Update on Energy Loss*, RHIC & AGS Annual Users' Meeting 2010, Brookhaven National Laboratory: Upton, NY (June, 2010)
11. *Energy Loss in the Hot QCD Brick I*, Talk at the *Joint TECHQM/CATHIE Workshop*, Brookhaven National Laboratory: Upton, NY (December, 2009)

12. *WHDG Brick and Comparing WHDG to ASW-SH*, Talk at the *Third TEC-HQM Collaboration Meeting*, CERN: Geneva, Switzerland (July, 2009)
13. *Understanding Energy Loss of Heavy Quarks*, Talk at the 2009 RHIC & AGS Annual Users' Meeting, Brookhaven National Laboratory: Upton, NY (June, 2009)
14. *Testing AdS/CFT at LHC*, Talk at the *4th International Workshop on High- p_T Physics at LHC*, The Emauzy Abbey: Prague, Czech Republic (February, 2009)
15. *Shock Treatment: Heavy Quark Drag in Novel AdS Geometries*, Talk at the *Heavy Quark Physics in Nucleus-Nucleus Collisions* workshop, UCLA: Los Angeles, CA (January, 2009)
16. *WHDG @ TECHQM*, Talk at the *Second Workshop of the Theory-Experiment Collaboration for Hot QCD Matter*, Lawrence Berkeley National Laboratory: Berkeley, CA (December, 2008)
17. *Falsifying AdS/CFT Drag or pQCD Heavy Quark Energy Loss with A+A at RHIC and LHC*, Talk at the *Heavy Quark Workshop*, Lawrence Berkeley National Laboratory: Berkeley, CA (November, 2007)
18. *Probing AdS/CFT with Heavy Quarks*, Talk at *AdS Strings Intersect with Nuclear Beams at Columbia*, Columbia University: New York, NY (October, 2007)
19. *Jet Quenching at RHIC and the LHC*, Seminar for the *High- p_T Arbeitsgruppe [Working Group]*, Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (November, 2006)
20. *Heavy Quark Energy Loss*, Talk at the *2006 RHIC & AGS Annual Users' Meeting*, Brookhaven National Laboratory: Upton, NY (June, 2006)

Presentations:

1. *Studying Hot Many Body QCD*, Talk at the *57th Annual Conference of the South African Institute of Physics*: Pretoria, South Africa (July, 2012)
2. *Weakness or Strength in the Golden Years of RHIC and LHC?*, Talk at the *5th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions (Hard Probes 2012)*: Cagliari, Italy (May, 2012)
3. *EVMP: Nucleons vs. Nuclei, An Update*, Talk at the *Exploring QCD Frontiers: from RHIC and LHC to EIC Workshop*, Stellenbosch Institute for Advanced Studies (STIAS): Stellenbosch, Western Cape, South Africa (February, 2012)

4. *Testing pQCD and AdS/CFT Energy Loss at RHIC and LHC*, Talk at the 19th Particles & Nuclei International Conference (PANIC2011), Massachusetts Institute of Technology: Cambridge, MA, USA (July, 2011)
5. *Quenching and Tomography from RHIC to LHC*, Talk at the 22nd International Conference on Ultrarelativistic Nucleus-Nucleus Collisions (Quark Matter 2011) at L'imperial Palace: Annecy, France (May, 2011)
6. *Qualitative and quantitative jet physics?*, Talk at Kruger2010 – Workshop on Discovery Physics at the LHC, Protea Hotel Kruger Gate: Hazyview, South Africa (December, 2010)
7. *Qualitative and quantitative jet physics?*, Talk at the 4th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions (Hard Probes 2010) meeting, Dan Eilat Hotel: Eilat, Israel (October, 2010)
8. *Qualitative Successes of AdS/CFT at RHIC*, Talk at the GLS/SPOCK meeting, The University of Cincinnati: Cincinnati, OH (March, 2010)
9. *Quantitative pQCD and Qualitative AdS/CFT in Jet Physics*, Talk at the XXII Midwest Theory Get-Together, Argonne National Laboratory: Dupage, IL (October, 2009)
10. *Shock Treatment: Heavy Quark Energy Loss in a Novel Geometry*, Talk at the 21st International Conference on Ultrarelativistic Nucleus-Nucleus Collisions (Quark Matter 2009), Knoxville Convention Center: Knoxville, TN (March, 2009)
11. *Zeroth Order Heavy Quark Photon/Gluon Bremsstrahlung*, Talk at Yale-Columbia Fest, Yale University: New Haven, CT (May, 2008)
12. *Heavy Quark Photon Bremsstrahlung*, Talk at the 24th Winter Workshop on Nuclear Dynamics, South Padre Island Sheraton: South Padre Island, TX (April, 2008)
13. *Falsifying AdS/CFT Drag or pQCD Heavy Quark Energy Loss with A+A at RHIC and LHC*, Talk at the 20th International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions (Quark Matter 2008), B. M. Birla Auditorium and Convention Center: Jaipur, India (February, 2008)
14. *pQCD vs. AdS/CFT Tested by Heavy Quark Energy Loss*, Talk at the 12th International Conference on Strangeness in Quark Matter (Strange Quark Matter 2007), Congress Hall: Levoča, Slovakia (June, 2007)
15. *Possible String Theoretic Deviations from pQCD in Heavy Quark Energy Loss at LHC*, Talk during the Focus Week of the Heavy Ion Collisions at the LHC Last Call for Predictions workshop, CERN: Geneva, Switzerland (June, 2007)

16. *The LHC to Test pQCD vs. AdS/CFT Heavy Quark Energy Loss*, Talk at the 44th RNM Workshop, Gesellschaft für Schwerionenforschung mbH (GSI): Darmstadt, Germany (April, 2007)
17. *Heavy LHC Predictions: A Charming Disambiguation of Energy Loss*, Talk at the Helmholtz Meeting, Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (March, 2007)
18. *pQCD vs. String Theory: LHC Heavy Flavors to Decide*, Talk at Yale-Columbia Fest 2007, Yale University: New Haven, CT (January, 2007)
19. *Overcoming Fragility*, Talk at the 2nd International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions (*Hard Probes 2006*), Asilomar Conference Grounds: Pacific Grove, CA (June, 2006)
20. *The Role of Dynamic Geometry in Jet Tomography*, Talk at the Heavy Flavor Productions Workshop, Brookhaven National Laboratory: Upton, NY (December, 2005)
21. *The Importance of Both v_2 and R_{AA}* , Talk at Yale-Columbia Fest 2005, Yale University: New Haven, CT (June, 2005)

Posters:

1. *Heavy Quark Jet Quenching to Test pQCD vs. AdS/CFT*, at *Early Time Dynamics in Heavy Ion Collisions*, McGill University: Montréal, Canada (July, 2007)
2. *LHC Predictions from an extended theory with Elastic, Inelastic, and Path Length Fluctuating Jet Energy Loss*, at *Quark Matter 2006*, Shanghai Science Hall: Shanghai, China (December, 2006)
3. *A Promising Solution to the Elliptic Quench Puzzle at RHIC*, at *Quark Matter 2005*, Eötvös University: Budapest, Hungary (August, 2005)

Teaching Experience:

- University of Cape Town

- Lecturer

Honours Quantum Mechanics (Sakurai)	First Semester (FS) 2011, 2012
General Physics A (Knight)	FS 2012
Engineering Mechanics (Knight)	Second Semester (SS) 2011
Lecturer in Charge	FS 2011, 2012; SS 2012
Poisson Lab. Lecturer	FS 2011, 2012
Convenor for PHYLABIII Projects	SS 2011, 2012

- External Examiner
Honours Quantum Mechanics, University of Johannesburg
SS 2011, FS 2012
- Substitute Lecturer
 - The Ohio State University
Graduate Electromagnetic Field Theory I
Fall 2009
 - Columbia University
Graduate Electromagnetic Theory
Fall 2007
- Teaching Assistantships at Columbia University
 - Graduate Electromagnetic Theory
Fall 2007
 - Graduate Electricity and Magnetism II
Spring 2006
 - Graduate Electricity and Magnetism I
Fall 2005
 - General Physics Lab I
Fall 2003, Spring 2004,
& Spring 2005
- Teaching Assistantships at the Georgia Institute of Technology
 - Honors Calculus II
Fall 2002
 - Differential Equations
Spring 2002
 - Calculus III
Fall 2001 & Spring 2003
 - Calculus II
Spring 2001

Student Supervision:

- Ph.D. Students
 - Sebastian Bodenstein
2011-present
- M.Sc. Students
 - Mawande Lushozi
2012-present
- Honours Students
 - Mawande Lushozi
2011
 - Jason Myers
2011
- 3rd Year Projects

Kerry Paterson	2012
Emma Platts	2012
Daniel Stanley	2012
James Klatzow	2011
Bongani (Amos) Baloyi	2011

University Service:

Undergraduate Student Liaison	2012-
Chair of the UCT Physics Curriculum Task Force	2011-
UCT Physics Schools Outreach Committee	2011-2012
Founder and Faculty Mentor, UCT Society of Physics Students	2011-2012
Judge, Denman Research Forum, Ohio State University	2009
Graduate Admissions Committee, Columbia University	2007-2008