

W. A. Horowitz

Curriculum Vitae

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Education:

Ph.D. in Physics, Columbia University 2008
Thesis Advisor: Miklos Gyulassy
Thesis title: *Probing the Frontiers of QCD*
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:

Associate Professor, University of Cape Town 2019-
Senior Lecturer, University of Cape Town 2015-2018
Lecturer, University of Cape Town 2010-2014
Affiliate Faculty, New Mexico State University 2024-
Associate Faculty, African Institute for Mathematical Sciences (AIMS) 2016-

Leadership Positions:

Head of Nodes, Western Cape, National Institute of Theoretical
and Computational Sciences (NITheCS) 2023-
Founder and Director, South African Theory and Computational
School (SATACS) 2021-
Head, Theory Division, SA-CERN Collaboration 2016-2022
Deputy Head, Theory Division, SA-CERN Collaboration 2015-2016
Associates' Representative, on the Management Committee
of the National Institute for Theoretical and Computational Sciences 2018-2023
Representative for the University of Cape Town on the
Electron Ion Collider Users' Group (EICUG) Institutional Board 2016-
Deputy Director, Centre for Theoretical and Mathematical
Physics (CTMP), University of Cape Town 2015-

Awards:

Claude Leon Merit Award for Early-Career Researchers	2018
Meiring Naudé Medal for Outstanding Early Career Contributions to Science, Royal Society of South Africa	2017
UCT College of Fellows Young Researcher Award	2012
Finalist, 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

Memberships and Collaborations:

National Institute of Theoretical and Computational Sciences (NITheCS) Associate
 National Institute of Theoretical Physics (NITheP) Associate
 Member of SA-CERN Collaboration
 Senior Group Member of UCT-CERN
 Member of the Electron Ion Collider (EIC) Users' Group
 Associate Member of the Organization for Women in Science
 for the Developing World, South Africa Chapter
 Associate Member of the JET Collaboration
 Member of the UCT Centre for Theoretical and Mathematical Physics (CTMP)

Editorial Activities:

Refereed for Acta Physica Hungarica, Annals of Physics, EPJA, EPJC, JHEP, Journal of Physics G, the New Journal of Physics, Nature: Scientific Reports, Nucl.Phys.A, Phys.Rev. C and D, Physical Review Letters, Reports on Progress in Physics, South African Institute of Physics (SAIP) Annual Conference Proceedings

Review Panelist for the Proceedings of the Annual Conference of the South African Institute of Physics in 2017 and 2018

Associate Editor for the Proceedings of the Annual Conference of the South African Institute of Physics, 2019, 2021-2024

Member of the Editorial Board of the 22nd Particles and Nuclei International Conference (PANIC2021) Conference Proceedings

Funding Reviews:

External reviewer for the Claude Leon Foundation Postdoctoral Fellowship Programme, South Africa; the National Research Foundation, South Africa; CONICYT, Chile; FONDECYT, Chile; the National Research, Development and Innovation Office (NRDI), Hungary; the Nuclear Physics Theory Program, Department of Energy (DOE), USA; and the Early Career Research Program (ECRP), Department of Energy (DOE), USA

School Lecturer:

The <i>Workshop on High Energy Particle Physics</i> Thohoyandou, South Africa	February, 2020
The <i>2018 iThemba LABS Summer School</i>	November, 2018
The <i>Workshop on High Energy Particle Physics</i> Johannesburg, South Africa	February, 2016
The 58 th Annual Conference of the South African Institute of Physics <i>Winter School</i> : Richards Bay, South Africa	July, 2013
The <i>22nd Jyväskylä Summer School</i> : Jyväskylä, Finland	August, 2012

Professional Service:

Chair of the External Advisory Board for the Department of Physics at New Mexico State University	2024-
Member of the Southern African Institute of Nuclear Technology and Sciences (SAINTS) Curriculum Committee	2022-
Chair of the SA-CERN Excellence Bursaries Selection Committee	2022
Member of the SA-CERN Excellence Bursaries Selection Committee	2021
Member of the UNESCO Recommendations for Science and Scientific Researchers (RSSR) South African report Drafting Group	2021
Member of the UNESCO South African based Responsible Research and Innovation Group (RRING) Consultation Panel	2021
Member of the NRF/DST Expert Working Group for the reconfiguration of the National Institute of Theoretical Physics (NITheP)	2018-2020
<ul style="list-style-type: none"> • I.M.A. Gledhill, et al., Building the science case for NITheP (2019) • I.M.A. Gledhill, et al., NITheP to NITheCS Roadmap (2020) 	
Member of the Electron-Ion Collider Users' Group Charter Writing Committee	2016

Conference Organization:

Local Organizer for the <i>32nd International Workshop on Deep Inelastic Scattering (DIS2024)</i> , Cape Town, South Africa	December, 2024
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International Advisory Committee for the <i>12th International Conference on Hard and Electromagnetic Probes (Hard Probes 2024)</i> , Nagasaki, Japan	September, 2024
International Advisory Committee for the “Exploring quark-gluon plasma properties through low- p_T and high- p_T probes” workshop, Belgrade, Serbia	May, 2023
Local Organizer for the <i>6th Biennial International Workshop on Discovery Physics at the LHC (Kruger2022)</i> , Kruger National Park, South Africa	December, 2022
Local Organizer of the <i>International Nuclear Physics Conference</i> Cape Town, South Africa	September, 2022
Convenor for QCD with Heavy Flavors and Hadronic Final States at <i>DIS2021</i> New York, NY, USA (and Virtual)	April, 2021
Convenor for Hadrons in Medium at the <i>22nd Particles and Nuclei International Conference (PANIC2020)</i> Lisbon, Portugal	September, 2020
Local Organizer for <i>Strings 2020</i> Cape Town, South Africa	June, 2020
International Advisory Committee for the <i>10th International Conference on Hard and Electromagnetic Probes (Hard Probes 2020)</i> , Austin, Texas, USA	June, 2020
Convenor for QCD with Heavy Flavors and Hadronic Final States at <i>DIS2020</i> (Cancelled) New York, NY, USA	March, 2020
Local Organizer for the <i>Workshop on High Energy Particle Physics</i> Thohoyandou, South Africa	February, 2020
Local Organizer for the <i>Workshop on High Energy Particle Physics</i> Johannesburg, South Africa	February, 2019
Convenor for Heavy Ion Physics at the <i>XXXIX International Conference on High Energy Physics (ICHEP)</i> Seoul, South Korea	July, 2018
Local Organizer for the <i>5th Biennial International Workshop on Discovery Physics at the LHC (Kruger2018)</i> , Kruger National Park, South Africa	December, 2018
Local Organizer for the Hot and Dense Matter School 2017 Stellenbosch, South Africa	November, 2017
Local Organizer for the <i>Workshop on High Energy Particle Physics</i> Johannesburg, South Africa	February, 2017
Local Organizer for the <i>4th Biennial International Workshop on Discovery Physics at the LHC (Kruger2016)</i> , Kruger National Park, South Africa	December, 2016

Convener for Open Heavy Flavour at the Lorentz Center <i>Tomography of the Quark-Gluon Plasma with Heavy Quarks</i> workshop	October, 2016
International Advisory Committee for the <i>8th International Conference on Hard and Electromagnetic Probes (Hard Probes 2016)</i> , Wuhan, China	September, 2016
Local Organizer for the <i>Workshop on High Energy Particle Physics</i> Johannesburg, South Africa	February, 2016
Co-organizer for the “Hadron structure, nuclear environment, and binding” session at the <i>EIC Users’ Group Meeting</i>	January, 2016
International Advisory Committee for the <i>7th International Conference on Hard and Electromagnetic Probes (Hard Probes 2015)</i> , Montreal, Canada	July, 2015
Local Organizer for the <i>Workshop on High Energy Particle Physics</i> Johannesburg, South Africa	January, 2015
Local Organizer for the <i>26th Chris Engelbrecht Summer School 2015 Physics of the LHC</i> , Cape Town, South Africa	January 2015
Local Organizer for the <i>3rd Biennial International Workshop on Discovery Physics at the LHC (Kruger2014)</i> , Kruger National Park, South Africa	December, 2014
Chair of the Local Organizing Committee for the <i>6th International Conference on Hard and Electromagnetic Probes (Hard Probes 2013)</i> , Cape Town, South Africa	November, 2013
Local Organizer for the <i>2nd Biennial International Workshop on Discovery Physics at the LHC (Kruger2012)</i> , Kruger National Park, South Africa	December, 2012
Judge for Student Awards, <i>5th Annual Conference of the South African Institute of Physics</i> , Pretoria, South Africa	July, 2012
Convener for the <i>11th 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 <i>AdS Strings Intersect with Nuclear Beams at Columbia</i>	October 2007

Visiting Positions and Extended Workshops:

Electron-Ion Collider (EIC) Theory Institute	2024
New Mexico State University	2024
Electron-Ion Collider (EIC) Theory Institute	2023
INT: Precision Spectroscopy of QGP Properties with Jets and Heavy Quarks	2017
Lorentz Center: Tomography of the Quark-Gluon Plasma with Heavy Quarks	2016
INT: Gluons and the Quark Sea at High Energies	2010
INT: Quantifying the Properties of Hot QCD Matter	2010

Aspen Center for Physics
Frankfurt Institute for Advanced Studies (FIAS)

2009
2006-2007

Citations:

inSPIRE: 3918 (h-index 22); Google Scholar: 4277 (h-index 21)

Publications:

1. A. Rothkopf and W. A. Horowitz, *A Unifying Action Principle for Classical Mechanical Systems*, arXiv:[2409.11063](#) [class-ph]
2. Coleridge Faraday and W. A. Horowitz, *Collisional and Radiative Energy Loss in Small Systems*, arXiv:[2408.14426](#) [nucl-th], submitted to Phys.Rev.C
3. W. A. Horowitz and A. Rothkopf, *Even More Generalized Hamiltonian Dynamics*, arXiv:[2408.14420](#) [math-ph]
4. Alexander Rothkopf, W. A. Horowitz, and Jan Nordström, *Exact symmetry conservation and automatic mesh refinement in discrete initial boundary value problems*, arXiv:[2404.18676](#) [math.NA], submitted to J.Comput.Phys.
5. W. A. Horowitz and J. F. Du Plessis, *Finite System Size Correction to the Effective Coupling in ϕ^4 Scattering*, *Phys.Rev.D* **109** (2024) **3**, [036013](#) [arXiv:[2308.08651](#) [hep-th]]
6. Coleridge Faraday, Antonia Gringrod, and W. A. Horowitz, *Inconsistencies in, and short pathlength correction to, $R_{AA}(p_T)$ in $A+A$ and $p+A$ collisions*, *Eur.Phys.J.C* **83** (2023) **11**, [1060](#) [arXiv:[2305.13182](#) [hep-ph]]
7. W. A. Horowitz, *Denominator Regularization in Quantum Field Theory*, arXiv:[2209.02820](#) [hep-th], submitted to Phys.Rev.Lett.
8. W. A. Horowitz and J. F. Du Plessis, *Finite system size correction to NLO scattering in ϕ^4 theory*, *Phys.Rev.D* **105** (2022) **9**, [L091901](#) [arXiv:[2203.01259](#) [hep-th]]
9. Hannah Clayton, Matthew D. Sievert, and W. A. Horowitz, *Jet Broadening in the Opacity and Twist Expansions*, *Eur.Phys.J.C* **82** (2022) **5**, [437](#) [arXiv:[2110.14737](#) [hep-ph]]
10. B. A. Ngwenya and W. A. Horowitz, *B -meson Nuclear Modification Factor and $v_2(p_T)$ in a Strongly Coupled Plasma in $Pb+Pb$ Collisions at $\sqrt{s_{NN}} = 2.76$ TeV and $\sqrt{s_{NN}} = 5.5$ TeV*, submitted to Phys.Rev.C, arXiv:[2011.07617](#) [hep-ph]

11. A. K. Mes, R. W. Moerman, J. P. Shock, and W. A. Horowitz, *Strongly Coupled Heavy and Light Quark Thermal Motion from AdS/CFT*, [Annals Phys. 436 \(2022\) 168675](#) [arXiv:2008.09196 [hep-th]]
12. Sylvain Mogliacci, Isobel Kolbé, and W. A. Horowitz, *Geometrically Confined Thermal Field Theory: Finite Size Corrections and Phase Transitions*, [Phys.Rev.D 102 \(2020\) 11, 116017](#) [arXiv:1807.07871 [hep-th]]
13. N. N. Barnard and W. A. Horowitz, *Bottomonia Suppression in Heavy Ion Collisions from AdS/CFT*, [Phys.Rev.C 101 \(2020\) 1, 014911](#) [arXiv:1706.09217 [hep-ph]]
14. Masakiyo Kitazawa, Sylvain Mogliacci, Isobel Kolbé, and W.A. Horowitz, *Anisotropic pressure induced by finite-size effects in SU(3) Yang-Mills theory*, [Phys.Rev.D 99 \(2019\) 9, 094507](#) [arXiv:1904.00241 [hep-lat]]
15. Isobel Kolbé and W. A. Horowitz, *Short-path-length corrections to Djordjevic-Gyulassy-Levai-Vitev energy loss*, [Phys.Rev.C 100 \(2019\) 2, 024913](#) [arXiv:1511.09313 [hep-ph]]
16. A. N. Rasoanaivo and W. A. Horowitz, *Two Gluon Emission from MHV: Two Particle Correlations and the Deviation from Poisson*, arXiv:1712.06292 [hep-ph]
17. Abdullah Khalil and W. A. Horowitz, *A Complete Diagrammatic Implementation of the Kinoshita-Lee-Nauenberg Theorem at Next-to-Leading Order*, arXiv:1701.00763 [hep-th]
18. G. Aarts et al., *Heavy-flavor production and medium properties in high-energy nuclear collisions - What next?*, [Eur.Phys.J. A53 \(2017\) no.5, 93](#), arXiv:1612.08032 [nucl-th]
19. R. W. Moerman and W. A. Horowitz, *A semi-classical recipe for wobbly limp noodles in partonic soup*, arXiv:1605.09285 [hep-th]
20. A. Andronic et al., *Heavy-flavour and quarkonium production in the LHC era: from proton-proton to heavy-ion collisions*, [Eur.Phys.J. C76 \(2016\) 107](#) [arXiv:1506.03981 [nucl-ex]]
21. W. A. Horowitz, *Fluctuating Heavy Quark Energy Loss in Strongly-Coupled Quark-Gluon Plasma*, [Phys.Rev. D91 \(2015\) 8, 085019](#) [arXiv:1501.04693 [hep-ph]]
22. R. Morad and W. A. Horowitz, *Strong-coupling Jet Energy Loss from AdS/CFT*, [JHEP1411, 017 \(2014\)](#) [arXiv:1409.7545 [hep-th]]
23. Nestor Armesto et al., *Comparison of Jet Quenching Formalisms for a Quark-Gluon Plasma ‘Brick’*, [Phys. Rev. C86 \(2012\) 064904](#) [arXiv:1106.1106 [hep-ph]]
24. W. A. Horowitz and Miklos Gyulassy, *Quenching and Tomography from RHIC to LHC*, [J. Phys. G38, 124114 \(2011\)](#) [arXiv:1107.2136 [hep-ph]]

25. W. A. Horowitz and Yuri V. Kovchegov, *Running coupling corrections to inclusive gluon production*, *J. Phys.* **G38**, 124064 (2011) [arXiv:1106.5456 [hep-ph]]
26. W. A. Horowitz and Miklos Gyulassy, *The Surprising Transparency of the sQGP at LHC*, *Nucl. Phys.* **A872**, 265 (2011) [arXiv:1104.4958 [hep-ph]]
27. 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]]
28. W. A. Horowitz, *Qualitative and Quantitative Energy Loss?*, *Nucl. Phys.* **A855**:225-228 (2011) [arXiv:1011.5965 [hep-ph]]
29. 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]]
30. 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]]
31. 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]]
32. W. A. Horowitz and Yuri V. Kovchegov, *Shock Treatment: Heavy Quark Drag in a Novel AdS Geometry*, *Phys. Lett.* **B680**:56-61 (2009) [arXiv:0904.2536 [hep-th]]
33. 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]]
34. 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]
35. W. A. Horowitz, *pQCD vs. AdS/CFT Tested by Heavy Quark Energy Loss*, *J. Phys. G* **35**, 044025 (2008) [arXiv:0710.0703 [nucl-th]]
36. 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]]
37. William A. Horowitz, *LHC Predictions from an extended theory with Elastic, Inelastic, and Path Length Fluctuating Energy Loss*, *Int. J. Mod. Phys.* **E16**, 2193-2199 (2007) [arXiv:nucl-th/0702084]
38. Simon Wicks, William Horowitz, Magdalena Djordjevic, Miklos Gyulassy, *Heavy quark jet quenching with collisional plus radiative energy loss and path length fluctuations*, *Nucl. Phys.* **A783**:493-496 (2007) [arXiv:nucl-th/0701063]

39. 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]
40. 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]
41. William Horowitz, *Overcoming Fragility*, *Nucl. Phys.* **A783**:543-546 (2007) [arXiv:nucl-th/0610024]
42. W. A. Horowitz, *Large Observed v_2 as a Signature for Deconfinement*, *Acta Phys. Hung.* **A27**:221-225, 2006 [arXiv:nucl-th/0511052]

Books:

1. William Horowitz *et al.* eds., *Proceedings, 6th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions (Hard Probes 2013): Cape Town, South Africa, November 4-8, 2013*, *Nucl.Phys.* **A932** (2014) pp.1-638
2. 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. Coleridge Faraday and W. A. Horowitz, *Heavy Flavour Energy Loss in Small and Large Systems*, arXiv:2409.14886, contribution to Strange Quark Matter 2024
2. Coleridge Faraday and W. A. Horowitz, *High- p_T Suppression in Small Systems*, arXiv:2312.10712, contribution to Quark Matter 2023
3. J. F. Du Plessis and W. A. Horowitz, *NLO Scattering in ϕ^4 Theory Finite System Size Corrections Self-Consistency*, contribution to INPC2022, *J. Phys.: Conf. Ser.* **2586** 012021 (2023)
4. W. A. Horowitz, *Jets in $e+A$ SIDIS and Denominator Regularization*, contribution to INPC2022, *J. Phys.: Conf. Ser.* **2586** 012019 (2023)
5. Coleridge Faraday and W. A. Horowitz, *Assumption Breakdown in Radiative Energy Loss*, contribution to SAIP2023, arXiv:2309.06246 [hep-ph]
6. Coleridge Faraday and W. A. Horowitz, *Energy Loss in Small Collision Systems*, contribution to Hard Probes 2023, arXiv:2307.08355 [hep-ph]

7. Jean Du Plessis and W. A. Horowitz, *Finite system size correction in ϕ^4 theory NLO scattering using denominator regularization*, PoS ICHEP2022 (2022) 1206
8. William A. Horowitz, Hannah Clayton, and Matthew D. Sievert, *Are Jets Narrowed or Broadened in $e+A$ SIDIS?*, contribution to PoS ICHEP 2022
9. William A. Horowitz, Hannah Clayton, and Matthew D. Sievert, *Are Jets Narrowed or Broadened in $e+A$ SIDIS?*, contribution to Quark Matter 2022
10. J. F. Du Plessis and W. A. Horowitz, *NLO finite system size corrections to $2 \rightarrow 2$ scattering in ϕ^4 theory using newly derived sum of sinc functions*, contribution to ISMD2022 [2209.15309](#) [hep-th]
11. W. A. Horowitz, *The QCD Equation of State in Small Systems*, contribution to the South African Institute of Physics Annual Meeting Proceedings, 2022
12. B. A. Ngwenya, A. K. Rothkopf, and W. A. Horowitz, *Energies of the Anharmonic Oscillator using the Metropolis Algorithm and Matrix Methods*, contribution to the South African Institute of Physics Annual Meeting Proceedings, 2022
13. J. F. Du Plessis and W. A. Horowitz, *Analytic Continuation of the Generalized Epstein zeta function for calculating finite system corrections in ϕ^4 theory*, contribution to the South African Institute of Physics Annual Meeting Proceedings, 2022
14. Blessed Arthur Ngwenya and William A. Horowitz, *B and D meson Suppression and Azimuthal Anisotropy in a Strongly Coupled Plasma at $\sqrt{s_N N} = 5.5$ TeV*, contribution to the South African Institute of Physics Annual Meeting Proceedings, 2021
15. W. A. Horowitz, *Factorisation in Heavy Ion Collisions*, contribution to the South African Institute of Physics Annual Meeting Proceedings, 2021
16. W. A. Horowitz and Alexander Rothkopf, *The QCD Equation of State in Small Systems*, contribution to [ISMD2021](#), arXiv:[2109.01422](#) [hep-ph]
17. William A. Horowitz, *QCD Correlations in Multiple Gluon Bremsstrahlung*, [PoS HardProbes2020 \(2021\) 183](#)
18. R. Hambrock and W. A. Horowitz, *AdS/CFT Calculations for Rapidity Dependence of Non-prompt J/ψ Suppression at LHC*, contribution to [SQM2019](#), [Springer Proc.Phys. 250 \(2020\) 147-151](#)
19. B. A. Ngwenya and W. A. Horowitz, *Fluctuating open heavy flavour energy loss in a strongly coupled plasma with observables from rhic and the lhc*, in [The Proceedings of the 64th Annual Conference of the South African Institute of Physics \(SAIP2019\)](#)

20. N. N. Barnard and W. A. Horowitz, *Bottomonia suppression in heavy-ion collisions from AdS/CFT*, in [The Proceedings of the 64th Annual Conference of the South African Institute of Physics \(SAIP2019\)](#)
21. W. A. Horowitz, *Non-Abelian Corrections for Radiation in QCD*, in [The Proceedings of the 64th Annual Conference of the South African Institute of Physics \(SAIP2019\)](#)
22. Sylvain Mogliacci, Isobel Kolbé, W.A. Horowitz, *Phase Transitions in Finite Systems*, contribution to [Kruger2018](#), [J.Phys.Conf.Ser. 1271 \(2019\) 1, 012022](#)
23. Isobel Kolbé, W.A. Horowitz, Sylvain Mogliacci, *Small System Corrections to Thermal Field Theory and pQCD Energy Loss*, contribution to [Kruger2018](#), [J.Phys.Conf.Ser. 1271 \(2019\) 1, 012019](#)
24. N.N. Barnard and W.A. Horowitz, *Strongly coupled $\Upsilon(1S)$ suppression in $\sqrt{s_{NN}} = 2.76$ TeV Pb+Pb collisions*, contribution to [Kruger2018](#), [J.Phys.Conf.Ser. 1271 \(2019\) 1, 012012](#)
25. Robert Hambrock and W.A. Horowitz, *Heavy flavour energy loss from AdS/CFT in heavy ion collisions at RHIC and LHC*, [PoS HardProbes2018 \(2018\) 047](#)
26. W. A. Horowitz, *Quantitative Predictions of Heavy Flavor Photon Bremsstrahlung in Heavy Ion Collisions from AdS/CFT*, in [The Proceedings of SAIP2018](#)
27. R. Hambrock and W. A. Horowitz, *AdS/CFT predictions for correlations, suppression, and flow of heavy flavours at RHIC and LHC*, in [The Proceedings of SAIP2018](#)
28. R. Hambrock and W. A. Horowitz, *Heavy flavour energy loss from AdS/CFT: A novel diffusion coefficient*, contribution to [SQM2017](#), [EPJ Web Conf. 171 \(2018\) 18002](#) [[arXiv:1802.02442](#) [hep-ph]]
29. Sylvain Mogliacci, Isobel Kolbé, and W. A. Horowitz, *From Heavy-Ion Collisions to Compact Stars: Equation of State and Relevance of the System Size*, contribution to [CSQCD VI](#), [Universe 4 \(2018\) no.1, 14](#) [[arXiv:1801.08187](#) [hep-ph]]
30. W. A. Horowitz, *Heavy flavor tagged photon bremsstrahlung from AdS/CFT*, in [The Proceedings of SAIP2017](#)
31. Isobel Kolbé and W. A. Horowitz, *Is pQCD energy loss in trouble?*, contribution to [Quark Matter 2017](#), [Nucl. Phys. A967C \(2017\) 848](#)
32. Andrianiaina N. Rasoanaivo and W. A. Horowitz, *Beyond the Poisson Approximation: n Gluon Radiation in QGP*, contribution to [HP2016](#), [Nucl.Part.Phys.Proc. 289-290 \(2017\) 445-447](#)

33. Robert Hambroek and W. A. Horowitz, *AdS/CFT predictions for azimuthal and momentum correlations of $b\bar{b}$ pairs in heavy ion collisions*, contribution to [HP2016](#), [Nucl.Part.Phys.Proc.](#) 289-290 (2017) 233-236 [arXiv:1703.05845 [hep-ph]]
34. W. A. Horowitz, *Time Dependent \hat{q} from AdS/CFT*, contribution to [HP2016](#), [Nucl.Part.Phys.Proc.](#) 289-290 (2017) 129-132
35. R. Hambroek and W. A. Horowitz, *A distinguishing observable of strongly- and weakly coupled plasmas: NLO momentum correlations of $b\bar{b}$ pairs in heavy ion collisions at $\sqrt{s}=2.76\text{TeV}$* , contribution to [HEPPW2017](#), [J.Phys.Conf.Ser.](#) 889 (2017) no.1, 012015
36. W. A. Horowitz, *Thermal Field Theory in Small Systems*, contribution to [HEPPW2017](#), [J.Phys.Conf.Ser.](#) 889 (2017) no.1, 012022
37. Tanjona Rabemananajara and W. A. Horowitz, *Computing the $qg \rightarrow qg$ cross section using the BCFW recursion and introduction to jet tomography in heavy ion collisions via MHV techniques*, contribution to [HEPPW2017](#), [J.Phys.Conf.Ser.](#) 889 (2017) no.1, 012021
38. Isobel Kolbé and W. A. Horowitz, *A generalization to all system sizes of DGLV energy loss in the quark-gluon plasma*, contribution to [HEPPW2017](#), [J.Phys.Conf.Ser.](#) 889 (2017) no.1, 012008
39. Andrianiaina R. Rasoanaivo and W. A. Horowitz, *Correction to the Probability Distribution of Induced Gluon*, contribution to [HEPPW2017](#), [J.Phys.Conf.Ser.](#) 889 (2017) no.1, 012003
40. Abdullah Khalil and W. A. Horowitz, *Initial State Factorization and the Kinoshita-Lee-Nauenberg Theorem*, contribution to [HEPPW2017](#), [J.Phys.Conf.Ser.](#) 889 (2017) no.1, 012002
41. Andrianiaina R. Rasoanaivo and W. A. Horowitz, *Medium-induced radiation beyond the Poisson approximation*, contribution to [Kruger2016](#), [J.Phys.Conf.Ser.](#) 878 (2017) no.1, 012029
42. Isobel Kolbé and W. A. Horowitz, *A pQCD sized problem in small systems*, contribution to [Kruger2016](#), [J.Phys.Conf.Ser.](#) 878 (2017) no.1, 012025
43. Abdullah Khalil and W. A. Horowitz, *Leading the non-cancelling IR divergences in massless gauge theories: Abelian case*, contribution to [Kruger2016](#), [J.Phys.Conf.Ser.](#) 878 (2017) no.1, 012022
44. D. M. Adamiak and W. A. Horowitz, *Probing quark gluon plasma in pA collisions*, proceedings of the 61st Annual Conference of the South African Institute of Physics (SAIP2016)

45. Robert Hambrook and W. A. Horowitz, *AdS/CFT predictions for momentum correlations of $b\bar{b}$ pairs in heavy ion collisions*, submitted to the SAIP2016 proceedings
46. Abdullah Khalil and W. A. Horowitz, *NLO Rutherford scattering and energy loss in a QGP*, submitted to the SAIP2016 proceedings
47. Isobel Kolbé and W. A. Horowitz, *Short Path Length Energy Loss in the Quark Gluon Plasma*, submitted to the SAIP2016 proceedings
48. Razieh Morad and W. A. Horowitz, *The energy density as a function of space-time for a light quark jet in AdS/CFT*, submitted to the SAIP2016 proceedings
49. W. A. Horowitz and Arnaud Andrianaivalomahefa, *Energy loss of open strings with massive endpoints in AdS/CFT*, submitted to the SAIP2016 proceedings
50. Andrianiaina N. Rasoanaivo and W. A. Horowitz, *Non-abelian correction to the Poisson approximation for multi-gluon bremsstrahlung*, [J. Phys. Conf. Ser. **802** \(2017\) 012010](#)
51. R. Morad and W. A. Horowitz, *Energy density of light quark jet using AdS/CFT*, [J. Phys. Conf. Ser. **802** \(2017\) 012009](#)
52. Isobel Kolbé and W. A. Horowitz, *Short path length pQCD corrections to energy loss in the quark gluon plasma*, [J. Phys. Conf. Ser. **802** \(2017\) 012006](#)
53. Abdullah Khalil and W. A. Horowitz, *Next-to-leading order corrections to the elastic scattering of an electron off of a static scattering center*, [J. Phys. Conf. Ser. **802** \(2017\) 012004](#)
54. W. A. Horowitz, *An Extremely Brief Introduction to Quantum Field Theory*, [J. Phys. Conf. Ser. **802** \(2017\) 012003](#)
55. Ben Meiring and W. A. Horowitz, *Late time behaviour for Hard Parton Evolution using the Schwinger-Keldysh Formalism*, [J.Phys.Conf.Ser. **668** \(2016\) 012116](#)
56. Isobel Kolbé and W. A. Horowitz, *Short path length pQCD corrections to energy loss in the quark gluon plasma*, [J.Phys.Conf.Ser. **668** \(2016\) 012107](#)
57. W. A. Horowitz, *Fluctuations in Strong-Coupling Heavy Quark Energy Loss*, [J.Phys. Conf.Ser. **668** \(2016\) 012060](#)
58. D. M. Adamiak and W. A. Horowitz, *High-momentum particle production at RHIC, Fermilab, and LHC*, [proceedings](#) of the 60th Annual Conference of the South African Institute of Physics (SAIP2015)

59. R. W. Moerman and W. A. Horowitz, *Prescription for Constructing Modified Stringy Yo-yos in $(1 + 1)$ -dimensional Minkowski Space*, submitted to the 60th Annual Conference of the South African Institute of Physics (SAIP2015) conference proceedings
60. R. Morad and W. A. Horowitz, *Jets of light hadrons via AdS/CFT correspondence*, *J. Phys. Conf. Ser.* **645** (2015) 1, 012007
61. Ben Meiring and W. A. Horowitz, *Finite time calculations for hard parton production relevant to the quark-gluon plasma*, *J. Phys. Conf. Ser.* **645** (2015) 1, 012006
62. Isobel Kolbe and W. A. Horowitz, *Short Path Length Energy Loss in the Quark-Gluon Plasma from pQCD*, *J. Phys. Conf. Ser.* **645** (2015) 1, 012004
63. R. Morad and W. A. Horowitz, *Jet Nuclear Modification Factor from the AdS/CFT Correspondence*, *J. Phys. Conf. Ser.* **623** (2015) 1, 012021
64. Ben Meiring and W. A. Horowitz, *The Energy Momentum Tensor associated with Hard Parton production in Finite Time*, *J. Phys. Conf. Ser.* **623** (2015) 1, 012019
65. W. A. Horowitz, *NLO Heavy Quark Energy Loss in Strongly-Coupled Quark-Gluon Plasmas*, *J. Phys. Conf. Ser.* **623** (2015) 1, 012015
66. W. A. Horowitz, *Properties of the Quark-Gluon Plasma Observed at RHIC and LHC*, *59th Annual Conference of the South African Institute of Physics (SAIP2014) conference proceedings* (2015)
67. R. Morad and W. A. Horowitz, *Quark-gluon plasma physics from string theory*, *59th Annual Conference of the South African Institute of Physics (SAIP2014) conference proceedings* (2015)
68. W. A. Horowitz, *Corrections and Uncertainties in Energy Loss Model Predictions*, *J. Phys. Conf. Ser.* **589** (2015) 012011
69. W. A. Horowitz, *AdS/CFT Heavy Quark Energy Loss Beyond the Leading Order*, *Nucl. Phys.* **A931** (2014) 541-545
70. G. S. Jackson and W. A. Horowitz, *Predictions for the Spatial Distribution of Gluons in the Initial Nuclear State*, *Nucl. Phys.* **A932** (2014) 280-285 [arXiv:1404.4743 [nucl-th]]
71. W. A. Horowitz, *Heavy Quark Energy Loss and Bulk Physics*, *J. Phys. Conf. Ser.* **509** (2014) 012046
72. W. A. Horowitz, *Weakness or Strength in the Golden Years of RHIC and LHC?*, *Nucl. Phys.* **A910** (2013) 239–242 [arXiv:1207.7158 [nucl-th]]
73. W. A. Horowitz, *Heavy Quark Production and Energy Loss*, *Nucl. Phys.* **A904** (2013) 186c-193c [arXiv:1210.8330 [nucl-th]]

74. W. A. Horowitz, *Is It Hard Yet? The Qualitative Agreement of pQCD Energy Loss with RHIC and LHC Data*, *J. Phys. Conf. Ser.* **455** (2013) 012052
75. W. A. Horowitz, *The Study of Hot Many Body QCD*, to appear in the proceedings for the 57th Annual Conference of the SA Institute of Physics
76. W. A. Horowitz, *Testing pQCD and AdS/CFT Energy Loss at RHIC and LHC*, *AIP Conf. Proc.* **1441** (2012) 889-891 [arXiv:1108.5876 [hep-ph]]
77. W. A. Horowitz, *Qualitative and Quantitative Jet Physics in Pb + Pb at LHC*, *PoS KRUGER2010* (2011) 060, arXiv:1103.3018 [hep-ph]
78. W. A. Horowitz, *Testing AdS/CFT at LHC*, *PoS High-pT physics09:043,2009* [arXiv:0905.0504 [hep-ph]]
79. 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]

Colloquia:

1. *The Mathematics of a Trillion Degrees*, University of the Western Cape: Cape Town, South Africa (August, 2024)
2. *The Physics of a Trillion Degrees*, Georgia State University: Atlanta, USA (February, 2023)
3. *The Physics of a Trillion Degrees*, Kennesaw State University: Atlanta, USA (February, 2023)
4. *The Physics of a Trillion Degrees*, Lehigh University: Bethlehem, USA (December, 2023)
5. *Strengthening Education and Scientific Training in the Basic Sciences*, National Institute for Theoretical and Computational Sciences (NITheCS): Virtual, South Africa (September, 2022)
6. *The Physics of a Trillion Degrees*, University of Houston: Houston, USA (January, 2022)
7. *Studying Hot Many Body QCD*, University of Pretoria: Pretoria, South Africa (June, 2012)
8. *High- p_T Probes of Heavy Ion Collisions?*, Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (June, 2012)
9. *Phenomenology of the Quark-Gluon Plasma*, The University of Tennessee: Knoxville, TN (September, 2010)

10. *Successes, Failures, and Uncertainties in the Jet Physics of Heavy Ion Collisions*, The University of Cape Town: Cape Town, South Africa (February, 2010)
11. *RHIC High- p_T Physics*, Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (October, 2006)

Seminars:

1. *Energy Loss Approximations and Small Systems*, Electron-Ion Collider (EIC) Working Group Seminar: Upton, USA (June, 2024)
2. *Energy Loss Approximations and Small Systems*, RIKEN BNL Research Center (RBRC) Seminar: Upton, USA (June, 2024)
3. *The Physics of a Trillion Degrees*, Texas A&M University: College Station, USA (February, 2024)
4. *The Physics of a Trillion Degrees*, University of Texas: Austin, USA (February, 2024)
5. *The Physics of a Trillion Degrees*, University of Houston: Houston, USA (February, 2024)
6. *Parton Energy Loss in a Small System*, University of Stavanger: Stavanger, Norway (September, 2023)
7. *The Physics of a Trillion Degrees*, University of Stavanger: Stavanger, Norway (September, 2023)
8. *Small Systems Phenomenology*, Duke University: Durham, USA (May, 2023)
9. *Small Systems Phenomenology*, CERN: Geneva, Switzerland (March, 2023)
10. *Small Systems Phenomenology*, Brookhaven National Laboratory: Upton, New York, USA (January, 2023)
11. *Small Systems Phenomenology*, Stony Brook University: Stony Brook, New York, USA (January, 2023)
12. *The Physics of a Trillion Degrees*, the African Institute for Mathematical Sciences: Muizenberg, South Africa (October, 2022)
13. *Topics in Energy Loss in Many-Body QCD*, University of Tennessee: Knoxville, Tennessee, USA (July, 2020)
14. *MHV Techniques in Heavy Ion Collisions*, University of the Witwatersrand: Johannesburg, South Africa (March, 2019)

15. *The Physics of a Trillion Degrees*, University of Venda: Thohoyandou, South Africa (October, 2018)
16. *The Physics of a Trillion Degrees*, Nelson Mandela Metropolitan University: Port Elizabeth, South Africa (September, 2018)
17. *The Physics of a Trillion Degrees*, Science Faculty Research Seminar, University of Cape Town: Cape Town, South Africa (May, 2018)
18. *Open Heavy Flavor Observables from AdS/CFT*, University of Houston: Houston, TX, USA (March, 2018)
19. *Open (and Closed) Heavy Flavor from AdS/CFT*, University of Texas at Austin: Austin, TX, USA (March, 2018)
20. *Open (and Closed) Heavy Flavor from AdS/CFT*, Rice University: Houston, TX, USA (March, 2018)
21. *Open (and Closed) Heavy Flavor from AdS/CFT*, Texas A&M University: College Station, TX, USA (February, 2018)
22. *A Complete Diagrammatic Implementation of the Kinoshita-Lee-Nauenberg Theorem at Next-to-Leading Order*, Institut de Physique Nucléaire de Lyon: Lyon, France (July, 2017)
23. *A Complete Diagrammatic Implementation of the Kinoshita-Lee-Nauenberg Theorem at Next-to-Leading Order*, Mandelstam Institute for Theoretical Physics and NITheP Seminar, University of the Witwatersrand: Johannesburg, SA (March, 2017)
24. *Applications of AdS/CFT and pQCD to energy loss calculations in QGP*, Georgia State University: Atlanta, GA, USA (February, 2017)
25. *A Complete Diagrammatic Implementation of the Kinoshita-Lee-Nauenberg Theorem at Next-to-Leading Order*, Nuclear Theory/RIKEN Seminar, Brookhaven National Laboratory: Upton, NY, USA (February, 2017)
26. *Applications of AdS/CFT and pQCD to energy loss calculations in QGP*, Nuclear Theory Seminar, Lawrence Berkeley National Laboratory: Berkeley, CA, USA (February, 2017)
27. *Strongly Coupled Heavy Flavor Predictions at LHC*, Nuclear Physics Seminar, Istituto Nazionale di Fisica Nucleare: Torino, Italy (October, 2016)
28. *Time Dependent Momentum Transfer in a Strongly-Coupled Quark-Gluon Plasma from AdS/CFT*, Theoretical Physics Seminar, Institut de physique théorique, Université Paris Saclay: Gif-sur-Yvette, France (October, 2016)

29. *Advances in Strong Coupling Energy Loss*, High Energy Physics Seminar, University of the Witwatersrand: Johannesburg, South Africa (May, 2016)
30. *Weak and Strong Coupling Energy Loss at RHIC and LHC*, Nuclear Theory Seminar, Duke University: Durham, NC, USA (June, 2015)
31. *Weak and Strong Coupling Energy Loss at RHIC and LHC*, High Energy Physics Seminar, Georgia State University: Atlanta, GA, USA (June, 2015)
32. *Weak and Strong Coupling Energy Loss at RHIC and LHC*, Nuclear Theory Seminar, Columbia University: New York, NY, USA (June, 2015)
33. *Weak and Strong Coupling Energy Loss at RHIC and LHC*, Nuclear Theory Seminar, Wayne State University: Detroit, MI, USA (June, 2015)
34. *Weak and Strong Coupling Energy Loss at RHIC and LHC*, Nuclear Theory Seminar, Lawrence Berkeley National Laboratory: Berkeley, CA, USA (June, 2015)
35. *Weak and Strong Coupling Energy Loss at RHIC and LHC*, High Energy Theory Seminar, Purdue University: West Lafayette, IN, USA (June, 2015)
36. *Weak and Strong Coupling Energy Loss at RHIC and LHC*, Nuclear Theory Seminar, Ohio State University: Columbus, OH, USA (June, 2015)
37. *Heavy Quark Quenching in Quark-Gluon Plasma from the AdS/CFT Correspondence*, Quantum Gravity and Strings (QGaSLAB) Seminar, UCT: Cape Town, South Africa (February, 2015)
38. *Energy Loss in the Context of the p/d -A Non-Null Control*, Heavy Ion Forum, CERN: Geneva, Switzerland (June, 2014)
39. *The Qualitative Failure of Holographic Jet Quenching and Success of p QCD Energy Loss in Heavy Ion Collisions*, Heavy Ion Forum, CERN: Geneva, Switzerland (July, 2013)
40. *AdS/CFT: Is It Useful?*, The Laboratory for Quantum Gravity and Strings (QGaSLAB) Seminar, University of Cape Town: Cape Town, South Africa (February, 2013)
41. *Studying Hot Many Body QCD*, University of Johannesburg: Johannesburg, South Africa (June, 2012)
42. *Studying Hot Many Body QCD*, University of the Witwatersrand: Johannesburg, South Africa (June, 2012)
43. *High- p_T Probes of Heavy Ion Collisions?*, CERN Heavy Ion Physics Seminar, CERN: Geneva, Switzerland (June, 2012)

44. *High- p_T Probes of Heavy Ion Collisions?*, EMMI at GSI Seminar, Gesellschaft für Schwerionenforschung mbH (GSI): Darmstadt, Germany (June, 2012)
45. *Energy Loss Calculations, RHIC, and First Results from LHC*, Center for Theoretical Physics Seminar, Massachusetts Institute of Technology: Cambridge, MA, USA (July, 2011)
46. *Energy Loss Calculations, RHIC, and First Results from LHC*, Nuclear Theory Seminar, The Ohio State University: Columbus, OH, USA (July, 2011)
47. *Gluon Tomography with EVMP*, EIC Task Force Meeting: Upton, New York (June, 2011)
48. *Phenomenology of the Quark-Gluon Plasma*, The UCT Astrophysics, Cosmology and Gravity Centre (ACGC) Seminar: Cape Town, South Africa (April, 2011)
49. *Phenomenology of the Quark-Gluon Plasma*, Wits Theory Seminar, University of the Witwatersrand: Johannesburg, South Africa (March, 2011)
50. *RHIC in the Age of the LHC*, Nuclear Physics Seminar, Brookhaven National Laboratory: Upton, NY (August, 2010)
51. *Heavy Ion Physics at RHIC and LHC*, Nuclear Physics Seminar, The University of Tennessee: Knoxville, TN (July, 2010)
52. *Uncertainties and Consistency (?) in pQCD and AdS/CFT Jet Physics*, Special Seminar, Columbia University: New York, NY (March, 2010)
53. *Successes, Failures, and Uncertainties in Jet Physics in Heavy Ion Collisions*, WSU Nuclear Physics Seminar, Wayne State University: Detroit, MI (March, 2010)
54. *Successes, Failures, and Uncertainties in Jet Physics in Heavy Ion Collisions*, ISU Nuclear Physics Seminar, Iowa State University: Ames, IA (February, 2010)
55. *Jet Energy Loss with pQCD and AdS/CFT in Heavy Ion Collisions*, HIP Seminar, The Helsinki Institute of Physics: Helsinki, Finland (February, 2010)
56. *Successes, Failures, and Uncertainties in Jet Physics in Heavy Ion Collisions*, Theory Seminar, The University of Jyväskylä: Jyväskylä, Finland (February, 2010)
57. *Heavy Ion Collisions with pQCD and AdS/CFT*, Nuclear Theory Seminar, The Lawrence Berkeley National Laboratory: Berkeley, CA (January, 2010)
58. *The Success of AdS in Heavy Ion Collisions*, Special Seminar, Stony Brook University: Stony Brook, NY (December, 2009)
59. *Heavy Ion Collisions with pQCD and AdS/CFT*, UW Particle Theory Seminar, the University of Washington: Seattle, WA (November, 2009)

60. *String Theory Meets Field Theory in Heavy Ion Collisions*, OSU Nuclear Seminar, The Ohio State University: Columbus, OH (October, 2009)
61. *pQCD and AdS/CFT in Heavy Ion Collisions*, Institute of Nuclear & Particle Physics, Ohio University: Athens, OH (September, 2009)
62. *pQCD and AdS/CFT in Heavy Ion Collisions*, High Energy Physics Seminar, Purdue University: West Lafayette, IN (September, 2009)
63. *An Introduction to AdS/CFT and Heavy Ion Phenomenology*, The Aspen Center for Physics: Aspen, CO (May, 2009)
64. *Theoretical Thoughts on Energy Loss at RHIC and LHC*, The University of Colorado at Boulder: Boulder, CO (May, 2009)
65. *Testing String Theory with Jets*, Nuclear Theory Seminar, The Ohio State University: Columbus, OH (November, 2008)
66. *Testing AdS/CFT Drag and pQCD Heavy Quark Energy Loss*, Nuclear Theory Seminar, McGill University: Montréal, Canada (October, 2008)
67. *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)
68. *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)
69. *pQCD vs. AdS/CFT Tested by Heavy Quark Energy Loss*, Nuclear Physics & RIKEN Theory Seminar, Brookhaven National Laboratory: Upton, NY (August, 2007)
70. *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)
71. *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)
72. *Surface or Volume Emission at RHIC: Is Jet Tomography Possible?*, Sonderkolloquium [Special Seminar], Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (September, 2006)

Plenaries/Overviews:

1. *Particle Suppression in AA and p/dA Collisions Including Short Path Length Corrections*, at the *2024 RHIC/AGS Annual Users' Meeting*, Brookhaven National Laboratory: Upton, USA (June, 2024)
2. *The Physics of a Trillion Degrees*, at *The 3rd African Conference on Fundamental and Applied Physics (ACP2023)*, Protea Hotel King George: George, South Africa (September, 2023)
3. *The Physics of a Trillion Degrees*, at the *5th Biennial International Workshop on Discovery Physics at the LHC (Kruger2018)*, Casa do Sol: Hazyview, South Africa (December, 2018)
4. *SA-CERN/Theory: The Past 10 Years*, at the *Ten Years of South Africa-CERN Celebrations*, iThemba LABS: Cape Town, South Africa (November, 2018)
5. *Non-Specialist Talk: Theoretical Heavy Ion Physics*, at the *61st Annual Conference of the South African Institute of Physics*, University of Cape Town: Cape Town, South Africa (July, 2016)
6. *A theoretical overview on heavy quarks in a hot and dense medium*, at the *2nd Heavy Flavour Meet*, Saha Institute of Nuclear Physics: Kolkata, India (February, 2016)
7. *Heavy quark production and energy loss*, at *The XXIII International Conference on Ultrarelativistic Nucleus-Nucleus Collisions (Quark Matter 2012)*, Omni Shoreham Hotel: Washington, D.C. (August, 2012)
8. *Systematic Theoretical Uncertainties in Jet Quenching Due to Gluon Kinematics*, at the *Joint TECHQM/CATHIE Workshop*, Brookhaven National Laboratory: Upton, NY (December, 2009)

Invited Conference Talks:

1. *Introduction to Heavy Ion Physics*, the High Energy Particle Physics Workshop: University of Venda, South Africa (January, 2020)
2. *Probing the Frontiers of QCD*, Roadmap for Theoretical Physics within the SA-JINR Collaboration: Franschhoek, South Africa (January, 2020)
3. *(Small) Systems at Weak and Strong Coupling*, Symposium on Contemporary QCD Physics and Relativistic Nuclear Collisions: Wuha, China (November, 2019)
4. *Open and Closed Heavy Flavor Opportunities with ALICE Muons*, International MUON Workshop 2019: iThemba LABS, South Africa (April, 2019)

5. *Introduction to Heavy Ion Physics II: QCD is more than Background*, at the 2018 High Energy Particle Physics Workshop: Stellenbosch, South Africa (January, 2018)
6. *Applications of AdS/CFT and pQCD to energy loss calculations in QGP*, at the 2017 Santa Fe Jets and Heavy Flavor Workshop: Santa Fe, NM (February, 2017)
7. *pQCD Energy Loss in Small Systems and Correlations in AdS Heavy Flavor Energy Loss*, at the 2nd Heavy Flavour Meet, Saha Institute of Nuclear Physics: Kolkata, India (February, 2016)
8. *The Surprising Fluctuations in Tomo/Holo-graphy*, Looking Beyond 10^{10} Mini-Bangs, CGCs, Perfect Fluids, and Jet Tomo/Holo-graphy Workshop: Wuhan, China (September, 2015)
9. *Prospects for Energy Loss in Highly Nonconformal Matter at NICA*, SA-NICA Roundtable: Dubna, Russia (July, 2015)
10. *Weak and Strong Coupling Heavy Quark Energy Loss*, Heavy Quark Physics in Heavy-Ion collisions: experiments, phenomenology and theory: Trento, Italy (March, 2015)
11. *Light and Heavy Quark Jet Quenching in Quark-Gluon Plasma using AdS/CFT*, CERN-CKC TH Institute on Numerical Holography: Geneva, Switzerland (December 2014)
12. *Energy Loss in pQCD and AdS/CFT*, the Sapore Gravis Heavy flavour and quarkonium production in high-energy heavy-ion collisions workshop: Padua, Italy (December 2014)
13. *NLO Heavy Quark Energy Loss in Strongly-Coupled Quark-Gluon Plasmas*, 3rd Biennial International Workshop on Discovery Physics at the LHC (Kruger2014) at the Protea Hotel Kruger Gate: Hazyview, South Africa (December, 2014)
14. *Corrections and Uncertainties in Energy Loss Model Predictions*, 9th International Workshop on High-pT Physics at LHC at LPSC Grenoble, France (September, 2013)
15. *Do We Understand Energy Loss? The Critical Mass Dependence Test*, International MUON Workshop 2012: iThemba LABS, South Africa (May, 2012)
16. *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)
17. *Phenomenology of the Quark-Gluon Plasma*, National Institute of Theoretical Physics (NITheP) Associates Meeting: Stellenbosch, South Africa (April, 2011)

18. *Testing Energy Loss and the Pion Puzzle (?) at LHC*, 6th International Workshop on High-pT Physics at LHC 2011: Utrecht, Netherlands (April, 2011)
19. *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)
20. *Heavy Ion Physics and Electron Ion Colliders*, Electron-Ion Collider Collaboration Meeting at the Catholic University of America: Washington, DC (July, 2010)
21. *Energy Loss Mechanisms and Jet Physics*, PHENIX Collaboration Meeting at Iowa State University: Ames, IA (July, 2010)
22. *RHIC Challenges and LHC Outlook*, Quantifying the Properties of Hot QCD Matter at the Institute for Nuclear Theory: Seattle, WA (June, 2010)
23. *Theory Comparisons*, JET Collaboration Meeting, Lawrence Berkeley National Laboratory: Berkeley, CA (June, 2010)
24. *Theory Update on Energy Loss*, RHIC & AGS Annual Users' Meeting 2010, Brookhaven National Laboratory: Upton, NY (June, 2010)
25. *Energy Loss in the Hot QCD Brick I*, Talk at the *Joint TECHQM/CATHIE Workshop*, Brookhaven National Laboratory: Upton, NY (December, 2009)
26. *WHDG Brick and Comparing WHDG to ASW-SH*, Talk at the *Third TEC-HQM Collaboration Meeting*, CERN: Geneva, Switzerland (July, 2009)
27. *Understanding Energy Loss of Heavy Quarks*, Talk at the 2009 RHIC & AGS Annual Users' Meeting, Brookhaven National Laboratory: Upton, NY (June, 2009)
28. *Testing AdS/CFT at LHC*, Talk at the *4th International Workshop on High-pT Physics at LHC*, The Emauzy Abbey: Prague, Czech Republic (February, 2009)
29. *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)
30. *WHDG @ TECHQM*, Talk at the *Second Workshop of the Theory-Experiment Collaboration for Hot QCD Matter*, Lawrence Berkeley National Laboratory: Berkeley, CA (December, 2008)
31. *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)
32. *Probing AdS/CFT with Heavy Quarks*, Talk at *AdS Strings Intersect with Nuclear Beams at Columbia*, Columbia University: New York, NY (October, 2007)

33. *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)
34. *Heavy Quark Energy Loss*, Talk at the *2006 RHIC & AGS Annual Users' Meeting*, Brookhaven National Laboratory: Upton, NY (June, 2006)

Conference Oral Presentations:

1. *Exact Symmetry Preservation in Discretized PDEs with String Theory*, Talk at the *68th Annual Conference of the South African Institute of Physics*: Makhanda, South Africa (July, 2024)
2. *Deep Inelastic Scattering in Nuclear Collisions*, Talk at the *67th Annual Conference of the South African Institute of Physics*: Richard's Bay, South Africa (July, 2023)
3. *Energy Loss in Small Collision Systems*, Talk at the *11th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions (Hard Probes 2023)*: Aschaffenburg, Germany (March, 2023)
4. *Are Jets Narrowed or Broadened in $e+A$ SIDIS?*, Talk at the *28th International Nuclear Physics Conference (INPC 2022)*: Cape Town, South Africa (September, 2022)
5. *Are Jets Narrowed or Broadened in $e+A$ SIDIS?*, Talk at the *XLI International Conference on High Energy Physics (ICHEP2022)*: Bologna, Italy (July, 2022)
6. *Are Jets Narrowed or Broadened in $e+A$ SIDIS?*, Talk at the *66th Annual Conference of the South African Institute of Physics*: Nelson Mandela University, South Africa (July, 2022)
7. *Are Jets Narrowed or Broadened in $e+A$ SIDIS?*, Talk at the CFNS workshop *Jet Physics from RHIC/LHC to EIC*: Stony Brook University, USA (July, 2022)
8. *Are Jets Narrowed or Broadened in $e+A$ SIDIS?*, Talk at the *XXIXth International Conference on Ultra-relativistic Nucleus-Nucleus Collisions (Quark Matter 2022)*: Kraków, Poland (April, 2022)
9. *Are Jets Narrowed or Broadened in $e+A$ SIDIS?*, Talk at the *First Pan-African Astro-Particle and Collider Physics Workshop*: Virtual (March, 2022)
10. *Factorization in Heavy Ion Collisions*, Talk at the *65th Annual Conference of the South African Institute of Physics*: North-West University, South Africa (July, 2021)
11. *The QCD Equation of State in Small Systems*, Flash talk at the *50th International Symposium on Multiparticle Dynamics (ISMD2021)*: Pitlochry, Scotland (July, 2021)

12. *QCD Correlations in Multiple Gluon Bremsstrahlung*, Talk at the 10th International Conference on Hard and Electromagnetic Probes (*Hard Probes 2020*): Austin, Texas, USA (June, 2020)
13. *Non-Abelian Corrections for Radiation in QCD*, Talk at the 64th Annual Conference of the South African Institute of Physics: Polokwane, South Africa (July, 2019)
14. *Bottomonia Suppression from AdS/CFT*, Talk at the 8th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions (*Hard Probes 2018*), Cultural and Congress Center André Grosjean: Aix-les-Bains, France (October, 2018)
15. *Quantitative Predictions of Heavy Flavor Photon Bremsstrahlung in a Heavy Ion Collision from AdS/CFT*, Talk at the 63rd Annual Conference of the South African Institute of Physics: Bloemfontein, South Africa (July, 2018)
16. *Heavy Flavor Tagged Photon Bremsstrahlung from AdS/CFT*, Talk at the 62nd Annual Conference of the South African Institute of Physics: Stellenbosch, South Africa (July, 2017)
17. *Improving Strong and Weak Coupling Energy Loss*, Talk at the INT Precision Spectroscopy of QGP Properties with Jets and Heavy Quarks Workshop: Seattle, USA (May, 2017)
18. *Thermal Field Theory in Small Systems*, Talk at the High Energy Particle Physics Workshop (*HEPP2017*), iThemba LABS: Johannesburg, South Africa (February, 2017)
19. *Time Dependent \hat{q} from AdS/CFT*, Talk at the International Workshop on Discovery Physics at the LHC (*Kruger2016*), Protea Kruger Gate: Hazyview, South Africa (December, 2016)
20. *Time Dependent \hat{q} from AdS/CFT*, Talk at *Hard Probes 2016*, East Lake Conference Center: Wuhan, China (September, 2016)
21. *Fluctuations in Strong-Coupling Heavy Quark Energy Loss*, Talk at *Strange Quark Matter 2015*, Joint Institute for Nuclear Research (JINR): Dubna, Russia (July, 2015)
22. *AdS/CFT heavy-quark energy loss beyond the leading order*, Talk at the 24th International Conference on Ultrarelativistic Nucleus-Nucleus Collisions (*Quark Matter 2014*), Darmstadtium: Darmstadt, Germany (May, 2014)
23. *EVMP: Nucleons vs. Nuclei An Update*, Talk at the 4th International Workshop on the Physics Opportunities at an Electron-Ion Collider (*POETIC IV*), University of Jyväskylä: Jyväskylä, Finland (September, 2013)

24. *Heavy Quark Energy Loss and Bulk Physics*, Talk at the *14th International Conference on Strangeness in Quark Matter (Strange Quark Matter 2013)*, University of Birmingham: Birmingham, UK (July, 2013)
25. *Is it Hard Yet? The Qualitative Agreement of pQCD Energy Loss with RHIC and LHC Data*, Talk at the *International Workshop on Discovery Physics at the LHC (Kruger2012)*, Protea Kruger Gate: Hazyview, South Africa (December, 2012)
26. *Studying Hot Many Body QCD*, Talk at the *57th Annual Conference of the South African Institute of Physics*: Pretoria, South Africa (July, 2012)
27. *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)
28. *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)
29. *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)
30. *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)
31. *Qualitative and quantitative jet physics?*, Talk at *Kruger2010 – Workshop on Discovery Physics at the LHC*, Protea Hotel Kruger Gate: Hazyview, South Africa (December, 2010)
32. *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)
33. *Qualitative Successes of AdS/CFT at RHIC*, Talk at the *GLS/SPOCK* meeting, The University of Cincinnati: Cincinnati, OH (March, 2010)
34. *Quantitative pQCD and Qualitative AdS/CFT in Jet Physics*, Talk at the *XXII Midwest Theory Get-Together*, Argonne National Laboratory: Dupage, IL (October, 2009)
35. *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)
36. *Zeroth Order Heavy Quark Photon/Gluon Bremsstrahlung*, Talk at *Yale-Columbia Fest*, Yale University: New Haven, CT (May, 2008)

37. *Heavy Quark Photon Bremsstrahlung*, Talk at the 24th Winter Workshop on Nuclear Dynamics, South Padre Island Sheraton: South Padre Island, TX (April, 2008)
38. *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)
39. *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)
40. *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)
41. *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)
42. *Heavy LHC Predictions: A Charming Disambiguation of Energy Loss*, Talk at the *Helmholtz Meeting*, Johann Wolfgang Goethe Universität: Frankfurt am Main, Germany (March, 2007)
43. *pQCD vs. String Theory: LHC Heavy Flavors to Decide*, Talk at *Yale-Columbia Fest 2007*, Yale University: New Haven, CT (January, 2007)
44. *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)
45. *The Role of Dynamic Geometry in Jet Tomography*, Talk at the *Heavy Flavor Productions Workshop*, Brookhaven National Laboratory: Upton, NY (December, 2005)
46. *The Importance of Both v_2 and R_{AA}* , Talk at *Yale-Columbia Fest 2005*, Yale University: New Haven, CT (June, 2005)

Conference Posters:

1. *The QCD Equation of State in Small Systems*, at 50th International Symposium on Multiparticle Dynamics (*ISMD2021*): Pitlochry, Scotland (July, 2021)
2. *Heavy Quark Jet Quenching to Test pQCD vs. AdS/CFT*, at *Early Time Dynamics in Heavy Ion Collisions*, McGill University: Montréal, Canada (July, 2007)

3. *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)
4. *A Promising Solution to the Elliptic Quench Puzzle at RHIC*, at *Quark Matter 2005*, Eötvös University: Budapest, Hungary (August, 2005)

Outreach Talks:

1. *The Physics of a Trillion Degrees*, the University of Cape Town's Society of Physics Students: Cape Town, South Africa (September, 2021)
2. *The Physics of a Trillion Degrees*, the Science Cafe: Cape Town, South Africa (July, 2018)
3. *The Physics of a Microsecond After the Big Bang*, at *The Molecular and Cell Biology Research Day*, University of Cape Town: Cape Town, South Africa (September, 2016)
4. *High-Energy Nuclear Physics*, at the *Programme for the Enhancement of Research Capacity (PERC)*, University of Cape Town: Cape Town, South Africa (October, 2014)
5. *Non-Newtonian Fluids and the Viscosity of the Early Universe*, at *Phenomenal Physics*, University of Cape Town: Cape Town, South Africa (October, 2014)
6. *Non-Newtonian Fluids and the Viscosity of the Early Universe*, at *Phenomenal Physics*, University of Cape Town: Cape Town, South Africa (October, 2013)

Teaching Experience:

- University of Cape Town
 - Convenor
 - Physics B for Engineers (Knight) [PHY1013F] 2022-2023
 - Physics A for Engineers (Knight) [PHY1012S] 2015-
 - PHYLABIII Projects 2011-2012, 2018
 - Science Electromagnetism (Knight) [PHY1032F] 2013-2014
 - Lecturer
 - Honours Quantum Mechanics (Sakurai) [PHY4000W] 2011-2015
 - Honours Relativistic Quantum Mechanics
(Peskin) [PHY4000W] 2015-
 - Honours Quantum Field Theory (Peskin) [PHY4000W] 2013-
 - Science Electromagnetism (Knight) [PHY1032F] 2013-2014
 - Science Mechanics (Knight) [PHY1031F] 2012
 - Physics B for Engineers (Knight) [PHY1013F] 2023
 - Physics A for Engineers (Knight) [PHY1012F] 2015-2022
 - Physics A for Engineers (Knight) [PHY1012S] 2011-
 - Lecturer in Charge [PHYLAB1] 2011-2020
 - Poisson Lab. Lecturer [PHYLAB3] 2011-2016; 2018-2023
 - Quantum Field Theory I & II (SATACS) 2021-
 - External Examiner (Degrees)
 - Ph.D. Thesis, Anna Chrysostomou,
University of Johannesburg & l'Université Claude Bernard Lyon 1 2024
 - Ph.D. Thesis, Silvia Delsanto,
University of Torino 2021
 - M.Sc. Thesis, Wazha German,
Botswana International University of Science and Technology 2021
 - M.Sc. Thesis, Kokotla Rapetsoa,
University of Venda 2020
 - M.Sc. Thesis, Keamogecoe R. Modise,
University of Johannesburg 2020
 - M.Sc. Thesis, Amir Abouelrous,
University of the Witwatersrand 2018
 - M.Sc. Thesis, Nirina Tahiridimbisoa,
University of the Witwatersrand 2014
 - External Examiner (Courses)
 - Honours Statistical Physics,
University of Kwa-Zulu Natal 2024-2026
 - Honours Advanced Quantum Mechanics A,
University of Johannesburg 2018-2020

Honours Advanced Quantum Mechanics B, University of Johannesburg	2016-2018, 2023-2025
3 rd Year Quantum Mech. and Special Relativity, University of Johannesburg	2013-2015, 2021-2023
Honours Quantum Mechanics, University of Johannesburg	2011-2012
Honours Introduction to the Standard Model University of the Witwatersrand	2013-2014

Student Supervision:

- Postdoctoral Researchers
 - Razieh Morad 2014-2016
- Ph.D. Students
 - Blessed Ngwenya 2021-2024
 - Isobel Kolbé 2016-2019
 - Andriniaina Rasoanaivo 2015-2018
 - Sebastian Bodenstein 2011-2014
 - Razieh Morad 2012
- M.Sc. Students
 - Nia O'Callaghan 2024-
 - Joshua Browne (co-supervisor) 2024-
 - Salmaan Barday (so-supervisor) 2024-
 - Mickaya Razanaparany (AIMS) 2024
 - Cole Faraday 2023-
 - Jean Du Plessis* 2023
 - Antonio Renecele* 2020-2023
 - Nadia Barnard* 2019
 - Blessed Ngwenya* 2019-2021
 - Alexes Mes* 2019-2020
 - Tanjona Rabemananjara* 2017-2018
 - Robert Hambrock 2017-
 - Tanjona Rabemananjara (AIMS)*[‡] 2017
 - Samah Mohamed (AIMS) 2016
 - Abdullah Khalil* 2015-2017
 - Isobel Kolbé* 2015
 - Abdullah Khalil (AIMS)[†] 2015
 - Arnaud Andrianavalomahefa (AIMS)*[‡] 2015
 - Emmanuel Artis (École Normale Supérieure Rennes) 2015
 - Benjamin Meiring* 2014-2015
 - Andriniaina Rasoanaivo (AIMS)* 2013
 - Mawande Lushozi (co-supervisor) 2012-2014

*: Distinction; †: Essay distinction; ‡: Stephen Hawking Prize

- Honours Students

Ben Bert	2024
Nia O’Callaghan	2023
Frederik Burgers	2023
Cole Faraday	2022
Antonia Gringrod	2022
Hannah Clayton	2020
Nadia Barnard	2018
Blessed Ngwenya	2018
Gwyneth Allwright	2017
Nicole Moodley	2017
Robert Hambrock	2016
Lance Oom	2016
Daniel Adamiak	2015
Robert Moerman	2015
Mawande Lushozi	2011
Jason Myers	2011
- 3rd Year Projects

Isabella van Huyssteen, Tiaan van der Merwe, Rachel Williams	2024
Ariel Levy, Aameer Bhamani	2023
Faaris Alam, Justine Crook-Mansour, Charlotte Louw, Aylana Vorster	2021
Hannah Clayton	2019
Physics: Jordan Levin; Applied Math: Nadia Barnard, Nkosinathi Masetlwa Blessed Ngwenya	2017
Nadia Barnard, Lauren Denny, Victor Gueorguiev, Shaguftah Naimi	2016
Robert Hambrock, Nicole Moodley	2015
Daniel Adamiak, Jeremy Bingham, Ruach Slayen	2014
Greg Jackson	2013
Kerry Paterson, Emma Platts, Daniel Stanley	2012
Bongani (Amos) Baloyi, James Klatzow	2011
- National Institute for Theoretical Physics (NITheP) and National Institute for Theoretical and Computational Sciences (NITheCS) Interns

Jarryd Bath	2024
Seromo Podile	2018
Lance Oom	2015
Isobel Kolbé	2014

University Service:

- University
 - Senate 2023-
- Faculty
 - Teaching and Learning Committee 2024-
 - Postgraduate Throughput subcommittee 2024-
 - Selection Committee for nGAP Position in the Department of Physics 2024
 - Selection Committee for Two Positions in the Department of Physics 2016
 - Faculty of Science Research Committee 2016-2019
 - Board of the Faculty of Science 2010-
- Department
 - NRF Postgrad Bursary Application Evaluation Committee 2019 & 2023
 - Chair, Diversity Task Team 2016-2020
 - Undergraduate Student Liaison 2012-
 - Founder and Faculty Mentor, UCT Society of Physics Students 2011-
 - Chair of the UCT Physics Curriculum Task Force 2011-2013
 - UCT Physics Schools Outreach Committee 2011-2012
- Other
 - Judge, Denman Research Forum, Ohio State University 2009
 - Graduate Admissions Committee, Columbia University 2007-2008