

CURRICULUM VITAE 2/23

1. DAVID ANTHONY LOWE, FULL PROFESSOR, PHYSICS

Department of Physics
Box 1843
Brown University
Providence, RI 02912

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2. EDUCATION:

- 9/88—8/93 Ph.D., Physics Department, Princeton University
Advisor: A.M. Polyakov, Co-advisor: I.R. Klebanov
Thesis topic: 2d quantum gravity.
9/85—6/88 Cambridge University, U.K. M.A. (Cantab) 1st class honors.
Awarded Hartree and Maxwell prize for top of Physics tripos.

3. EMPLOYMENT:

- 7/14 — Full Professor, Brown University
7/03 — 6/14 Associate Professor, Brown University
7/97 — 6/03 Assistant Professor, Brown University
9/96 — 7/97 Senior Research Fellow, California Institute of Technology.
9/93 — 8/96 Postdoctoral researcher, Physics Department,
University of California at Santa Barbara.

4. RESEARCH GRANTS:

- 11 — 14 FQXI Institute Large grant, PI \$103,000
97 — present DOE Task A grant, CoPI \$400,000
07 — 09 NSF conference grant, “New England String Theory Meeting”, PI, \$5000
03 — 07 NSF United States-Mexico Cooperative Research Grant
PI, \$40,000
01 — 05 United States-Israel Binational Science Foundation Grant
CoPI, with two others. \$40,000
99 Richard B. Salomon Faculty Research Award

5. SERVICE:

Referree: Physical Review D, Physical Review Letters, Classical and Quantum Gravity, Nuclear Physics B, Physics Letters B, Journal of High Energy Physics, Cambridge University Press, NSF grant review, DOE grant review.

Outreach: New England Strings Meeting, 2007–present, co-organizer.

6. HONORS AND AWARDS:

- 88 Hartree and Maxwell Prize, Cambridge University
(awarded to the student with highest Tripos results)
- 88 Bishop Greene Prize, Corpus Christi College
(awarded to the two highest ranking scholars in the college)
- 87 Foundation Scholarship, Corpus Christi College
- 85 Girdlers' Scholarship
(awarded to one New Zealand high school student
each year to fund a B.A. at Cambridge University)

7. STUDENTS:

- 9/18 – 5/22 Ph.D. student, Chang Liu
- 1/21– 5/21 Master's thesis student, Hanzhang Zhao
- 9/16 – 5/17 Undergraduate senior thesis student, Richard Oliver
- 9/16 – 5/17 Master's thesis student, Ekapob Kulchoakrungsun
- 9/16 – 5/17 Master's thesis student, Adrian Lam
- 1/17 – 5/17 Master's thesis student, Conghuan Luo
- 1/16–5/16 Undergraduate senior thesis student, Jahmour Givans
- 1/16–5/16 Undergraduate senior thesis student, Kallan Berglund
- 1/14 — 5/18 Ph.D. student, Atreya Chatterjee (currently Asst. Prof. at RKMVERI)
- 9/09 — 7/13 Ph.D. student, Antun Skanata
(currently Research Asst. Prof. at Syracuse U.)
- 9/11 — 5/12 Undergraduate senior thesis student, William Hicks
awarded prize for best senior thesis in Physics
- 1/10 — 4/10 Undergraduate senior thesis student, Alice Goldfarb
- 9/05 — 5/10 Ph.D. student, Shubho Roy
currently Assistant Prof, IIT, Hyderabad, India
- 9/04 — 5/09 Ph.D. student, Michael Abbott
currently Associate Research Scientist, Yale U.
- 9/07 — 5/08 Undergraduate senior thesis student, Edward Baker
- 6/07 — 8/07 UTRA student, Edward Baker

1/07 — 5/07	Undergraduate senior thesis student, Patrick Courville
9/05 — 5/06	Undergraduate senior thesis student, Eric Perlmutter currently postdoc, Caltech
9/05 — 5/06	Undergraduate senior thesis student, John Murray currently grad student, U. of Michigan
6/04 — 8/04	UTRA student, Robert Morris
9/00 — 10/04	Ph.D. student, Kevin Goldstein currently Full Professor, U. Witwatersrand, South Africa
9/03 — 5/04	Undergraduate senior thesis student, Kenli Okada
6/03 — 8/03	UTRA student, Kenli Okada
6/02 — 8/03	UTRA student, Ben Lehmann
9/01 — 5/02	Freshman academic advisor
9/01 — 5/02	Sophomore academic advisor
9/01 — 5/01	Undergraduate senior thesis students, Benjamin Leung and Jason Young
6/00 — 8/00	UTRA student, Jason Young
9/97 — 8/01	Ph.D. student, Kamran Diba (currently Full Professor, Medical School, University of Michigan)

Selected Publications

- [1] A. Hamilton, D. N. Kabat, G. Lifschytz, and D. A. Lowe, “Holographic representation of local bulk operators,” *Phys. Rev. D* **74** (2006) 066009, [arXiv:hep-th/0606141](#).
- [2] A. Hamilton, D. N. Kabat, G. Lifschytz, and D. A. Lowe, “Local bulk operators in AdS/CFT: A Boundary view of horizons and locality,” *Phys. Rev. D* **73** (2006) 086003, [arXiv:hep-th/0506118](#).
- [3] J. C. Breckenridge, D. A. Lowe, R. C. Myers, A. W. Peet, A. Strominger, and C. Vafa, “Macroscopic and microscopic entropy of near extremal spinning black holes,” *Phys. Lett. B* **381** (1996) 423–426, [arXiv:hep-th/9603078](#).

- [4] R. Easther and D. A. Lowe, “Holography, cosmology and the second law of thermodynamics,” *Phys. Rev. Lett.* **82** (1999) 4967–4970, [arXiv:hep-th/9902088](#).
- [5] D. A. Lowe, J. Polchinski, L. Susskind, L. Thorlacius, and J. Uglum, “Black hole complementarity versus locality,” *Phys. Rev. D* **52** (1995) 6997–7010, [arXiv:hep-th/9506138](#).
- [6] G. T. Horowitz, D. A. Lowe, and J. M. Maldacena, “Statistical entropy of nonextremal four-dimensional black holes and U duality,” *Phys. Rev. Lett.* **77** (1996) 430–433, [arXiv:hep-th/9603195](#).
- [7] D. Kabat, G. Lifschytz, and D. A. Lowe, “Constructing local bulk observables in interacting AdS/CFT,” *Phys. Rev. D* **83** (2011) 106009, [arXiv:1102.2910 \[hep-th\]](#).
- [8] A. Hamilton, D. N. Kabat, G. Lifschytz, and D. A. Lowe, “Local bulk operators in AdS/CFT: A Holographic description of the black hole interior,” *Phys. Rev. D* **75** (2007) 106001, [arXiv:hep-th/0612053](#). [Erratum: *Phys.Rev.D* 75, 129902 (2007)].
- [9] K. Landsteiner, E. Lopez, and D. A. Lowe, “N=2 supersymmetric gauge theories, branes and orientifolds,” *Nucl. Phys. B* **507** (1997) 197–226, [arXiv:hep-th/9705199](#).
- [10] J. P. Gauntlett and D. A. Lowe, “Dyons and S duality in N=4 supersymmetric gauge theory,” *Nucl. Phys. B* **472** (1996) 194–206, [arXiv:hep-th/9601085](#).