

Curriculum Vitae
Akikazu Hashimoto

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Education:

PRINCETON UNIVERSITY, Princeton, NJ

September 1993 – 1997

Degree: Ph.D. Physics – May 1997

Thesis: Perturbative Dynamics of D-branes and Strings

Advisor: Prof. Igor Klebanov

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Boston, MA

September 1989 – May 1993

Degree: B.S. Physics, B.S. Mathematics

Thesis: Universality in Parametric Quantum Non-integrable Systems

Advisor: Prof. Boris L. Altshuler

Appointments:

- Visiting Member, Institute for Advanced Study, Princeton, June 2004–August 2004, June 2005.
- Assistant Professor, Department of Physics, University of Wisconsin-Madison, August 2003–Present
- Long Term Member, Institute for Advanced Study, Princeton, September 2001 – August 2003
- Member, Institute for Advanced Study, Princeton, September 2000 – September 2001
- Postdoctoral Researcher, Institute for Theoretical Physics, University of California, Santa Barbara, September 1997 – August 2000

Awards and Honors

- Publication [19], in collaboration with Koji Hashimoto, has been awarded the 2006 Soryushi Medal Shorei Prize by the Soryushiron Group (Japan Elementary Particle Theory Group)

Publications:

1. “Non-commutativity and Open Strings Dynamics in Melvin Universes,” Danny Dhokrah, Akikazu Hashimoto, and Sheikh Shajidul Haque, MAD-TH-07-02, in preparation.
2. “Aspects of Puff Field Theory,” Ori J. Ganor, Akikazu Hashimoto, Sharon Jue, Bom Soo Kim, and Anthony Ndirango, hep-th/0702030.
3. “Effective descriptions of branes on non-geometric tori.” Ian Ellwood and Akikazu Hashimoto, hep-th/0607135

4. "Open/closed string duality for FZZT branes in $c = 1$," Ian Ellwood and Akikazu Hashimoto, *JHEP* **02** (2006) 002, [hep-th/0512217](#)
5. "Non-commutative gauge theory on D-branes in Melvin Universes," Akikazu Hashimoto and Keith Thomas, *JHEP* **01** (2006) 083, [hep-th/0511197](#)
6. "Open/closed String Duality for Topological Gravity with Matter," Akikazu Hashimoto, Min-xin Huang, Albrecht Klemm, and David Shih, *JHEP* **05** (2005) 007, [hep-th/0501141](#)
7. "Dualities, Twists, and Gauge Theories with Non-Constant Non-Commutativity," Akikazu Hashimoto and Keith Thomas, *JHEP* **01** (2005) 033, [hep-th/0401197](#)
8. "Correspondence Principle for Black Holes in Plane Waves," Akikazu Hashimoto and Leopoldo Pando Zayas, *JHEP* **03** (2004) 014 [hep-th/0401197](#)
9. "Black strings in asymptotically plane wave geometries," Eric Gimon, Akikazu Hashimoto, Veronika E. Hubeny, Oleg Lunin, and Mukund Rangamani, *JHEP* **08** (2003) 035, [hep-th/0306131](#)
10. "Black holes in Godel universes and pp-waves." Eric Gimon and Akikazu Hashimoto, *Phys. Rev. Lett.* **91** (2003) 21601, [hep-th/0304181](#)
11. "Supergravity Solution of Intersecting Branes and AdS/CFT with Flavor," S. Cherkis and A. Hashimoto, *JHEP* **11** (2002) 036, [hep-th/0210105](#)
12. "Holography and String Dynamics in Time-dependent Backgrounds," A. Hashimoto and S. Sethi, *Phys. Rev. Lett.* **89** (2002) 261601, [hep-th/0208126](#)
13. "Observables of String Field Theory," A. Hashimoto and N. Itzhaki, *JHEP* **01**(2002)028, [hep-th/0111092](#)
14. "Duality Cascade and Oblique Phases in Non-Commutative Open String Theory," C. S. Chan, A. Hashimoto and H. Verlinde, *JHEP* **09**(2001)034, [hep-th/0107215](#)
15. "Traveling faster than the speed of light in non-commutative geometry," A. Hashimoto and N. Itzhaki, *Phys. Rev.* **D63** (2001) 126004, [hep-th/0012093](#).
16. "Observables of Noncommutative Gauge Theories,," D. Gross, A. Hashimoto, and N. Itzhaki, *Adv. Theor. Math. Phys.* **4** (2001) 893-928, [hep-th/0008075](#)
17. "Large Branes in AdS and their Field Theory Dual," A. Hashimoto, S. Hirano, and N. Itzhaki, *JHEP* **08** (2000) 051, [hep-th/0008016](#)
18. "On the hierarchy between noncommutative and ordinary supersymmetric Yang-Mills," A. Hashimoto and N. Itzhaki, *JHEP* **12** (1999) 007, [hep-th/9911057](#)
19. "Monopoles and Dyons in Non-commutative Geometry," A. Hashimoto and K. Hashimoto, *JHEP* **11** (1999) 005, [hep-th/9909202](#)¹
20. "Holography and Non-commutative Geometry," A. Hashimoto, Proceedings of Summer Institute 1999, Japan
21. "Noncommutative Yang-Mills and the AdS/CFT Correspondence," A. Hashimoto and N. Itzhaki, *Phys. Lett.* **B465** (1999) 142-147, [hep-th/9907166](#)
22. "Can DLCQ Test the Maldacena Conjecture?" F. Antonuccio, A. Hashimoto, O. Lunin, and S. Pinsky, *JHEP* **07** (1999) 029, [hep-th/9906087](#)
23. "Holographic Description of D3-Branes in Flat Space," A. Hashimoto, *Phys. Rev.* **D60** (1999) 127902, [hep-th/9903227](#)
24. "A Comment on the Zamolodchikov c-function and the Black String Entropy," A. Hashimoto and N. Itzhaki, *Phys. Lett.* **B454** (1999) 235-239, [hep-th/9903067](#)

¹Awarded the 2006 Soryushi Medal Shorei Prize by the Soryushiron Group (Japan Elementary Particle Theory Group).

25. "Supergravity solutions for localized intersections of branes," A. Hashimoto, *JHEP* **01** (1999) 018, [hep-th/9812159](#)
26. "Aspects of QCD dynamics from string theory," A. Hashimoto and Y. Oz, *Nucl. Phys.* **B548** (1999) 167-179, [hep-th/9809106](#).
27. "Exact Absorption Probabilities for the D3-Brane," S. S. Gubser and A. Hashimoto, *Comm. Math. Phys.* **203** (1999) 325-340, [hep-th/9805140](#)
28. "Scalar Absorption and the Breaking of the World Volume Conformal Invariance," S. S. Gubser, A. Hashimoto, I. R. Klebanov, and M. Krasnitz, *Nucl. Phys.* **B526** (1998) 393-414, [hep-th/9803023](#)
29. "Shape of Branes Pulled by Strings," A. Hashimoto, *Phys. Rev.* **D57** (1998) 6441-6451, [hep-th/9711097](#)
30. "Spectrum of a Large N Gauge Theory near Transition from Confinement to Screening," D. J. Gross, A. Hashimoto, I. R. Klebanov, *Phys. Rev.* **D57** (1998) 6420-6428, [hep-th/9710240](#)
31. "Fluctuation Spectra of Tilted and Intersecting D-Branes from the Born-Infeld Action," A. Hashimoto and W. Taylor, IV, *Nucl. Phys.* **B503** (1997) 193-219, [hep-th/9703217](#)
32. "Scattering of Strings from D-branes," A. Hashimoto and I. R. Klebanov, *Nucl. Phys.* (Proc.Suppl) **55B** (1997) 118-133, [hep-th/9611214](#)
33. "Perturbative Dynamics of Fractional Strings on Multiply Wound D-strings," A. Hashimoto *Int. J. Mod. Phys.* **A13** (1998) 903, [hep-th/9610250](#)
34. "Dynamics of Dirichlet-Neumann Open Strings on D-branes," A. Hashimoto, *Nucl. Phys.* **B496** (1997) 243-258, [hep-th/9608127](#)
35. "Decay of Excited D-branes," A. Hashimoto and I. R. Klebanov, *Phys. Lett.* **B381** (1996) 437-445, [hep-th/9604065](#)
36. "Gravitational lensing by p-branes," S. S. Gubser, A. Hashimoto, I. R. Klebanov, and J. M. Maldacena, *Nucl. Phys.* **B472** (1996) 231-248, [hep-th/9601057](#)
37. "Wormholes, Matrix Models, and Liouville Gravity," I. R. Klebanov and A. Hashimoto, *Nucl. Phys.* (Proc. Suppl.) **45B,C** (1996) 135-148
38. "Matrix Model Approach to $d > 2$ Non-critical Superstrings," A. Hashimoto and I. R. Klebanov, *Mod. Phys. Lett.* **A10** (1995) 2639-2649, [hep-th/9507062](#)
39. "Non-perturbative Solution of Matrix Models Modified by Trace-squared Terms," I. R. Klebanov and A. Hashimoto, *Nucl. Phys.* **B434** (1995) 264-282, [hep-th/9409064](#)
40. "Crossover Driven by Time-reversal Symmetry Breaking in Quantum Chaos," N. Taniguchi, A. Hashimoto, B. D. Simons and B. L. Altshuler, *Europhys. Lett.* **27** (1994) 335, [cond-mat/9404026](#)
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