

Curriculum Vitae
Akikazu Hashimoto

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Positions Held:

- Associate Professor, Department of Physics, University of Wisconsin-Madison, August 2009–Present.
- Assistant Professor, Department of Physics, University of Wisconsin-Madison, August 2003–August 2009
- 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

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

Research Publications

1. O. Aharony, A. Hashimoto, S. Hirano, and P. Ouyang. “D-brane Charges in Gravitational Duals of 2+1 Dimensional Gauge Theories and Duality Cascades.” *JHEP* **01** (2010) 072 [arXiv:0906.2390](#)
2. S. S. Haque and A. Hashimoto, “Positronium-like states in strongly coupled $\mathcal{N} = 4$ supersymmetric Yang-Mills theory,” *Nucl. Phys.* **B829** (2010) 555-572. [arXiv:0903.4841](#)
3. A. Hashimoto, P. Ouyang, “Supergravity dual of Chern-Simons Yang-Mills theory with $\mathcal{N} = 6, 8$ superconformal IR fixed point,” *JHEP* **10** (2008) 057 [arXiv:0807.1500](#)
4. S. S. Haque and A. Hashimoto, “Microscopic Formulation of Puff Field Theory,” *JHEP* **05** (2008) 040, [arXiv:0801.4354](#).
5. D. Dhokarh, S. S. Haque and A. Hashimoto, “Melvin Twists of global $AdS_5 \times S_5$ and their Non-Commutative Field Theory Dual,” *JHEP* **08** (2008) 084, [arXiv:0801.3812](#).

6. A. Hashimoto, “A Note on Spontaneously Broken Lorentz Invariance,” *JHEP* **08** (2008) 040, [arXiv:0801.3266](#).
7. “Non-commutativity and Open Strings Dynamics in Melvin Universes,” Danny Dhokrah, Akikazu Hashimoto, and Sheikh Shajidul Haque, *JHEP* **08** (2007) 027, [arXiv:0704.1124](#)
8. “Aspects of Puff Field Theory,” Ori J. Ganor, Akikazu Hashimoto, Sharon Jue, Bom Soo Kim, and Anthony Ndirango, *JHEP* **08** (2007) 035, [hep-th/0702030](#).
9. “Effective descriptions of branes on non-geometric tori.” Ian Ellwood and Akikazu Hashimoto, *JHEP* **12** (2006) 025, [hep-th/0607135](#)
10. “Open/closed string duality for FZZT branes in $c = 1$,” Ian Ellwood and Akikazu Hashimoto, *JHEP* **02** (2006) 002, [hep-th/0512217](#)
11. “Non-commutative gauge theory on D-branes in Melvin Universes,” Akikazu Hashimoto and Keith Thomas, *JHEP* **01** (2006) 083, [hep-th/0511197](#)
12. “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](#)
13. “Dualities, Twists, and Gauge Theories with Non-Constant Non-Commutativity,” Akikazu Hashimoto and Keith Thomas, *JHEP* **01** (2005) 033, [hep-th/0401197](#)
14. “Correspondence Principle for Black Holes in Plane Waves,” Akikazu Hashimoto and Leopoldo Pando Zayas, *JHEP* **03** (2004) 014 [hep-th/0401197](#)
15. “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](#)
16. “Black holes in Godel universes and pp-waves.” Eric Gimon and Akikazu Hashimoto, *Phys. Rev. Lett.* **91** (2003) 21601, [hep-th/0304181](#)
17. “Supergravity Solution of Intersecting Branes and AdS/CFT with Flavor,” S. Cherkis and A. Hashimoto, *JHEP* **11** (2002) 036, [hep-th/0210105](#)
18. “Holography and String Dynamics in Time-dependent Backgrounds,” A. Hashimoto and S. Sethi, *Phys. Rev. Lett.* **89** (2002) 261601, [hep-th/0208126](#)
19. “Observables of String Field Theory,” A. Hashimoto and N. Itzhaki, *JHEP* **01**(2002)028, [hep-th/0111092](#)
20. “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](#)
21. “Traveling faster than the speed of light in non-commutative geometry,” A. Hashimoto and N. Itzhaki, *Phys. Rev.* **D63** (2001) 126004, [hep-th/0012093](#).
22. “Observables of Noncommutative Gauge Theories,,” D. Gross, A. Hashimoto, and N. Itzhaki, *Adv. Theor. Math. Phys.* **4** (2001) 893-928, [hep-th/0008075](#)
23. “Large Branes in AdS and their Field Theory Dual,” A. Hashimoto, S. Hirano, and N. Itzhaki, *JHEP* **08** (2000) 051, [hep-th/0008016](#)
24. “On the hierarchy between noncommutative and ordinary supersymmetric Yang-Mills,” A. Hashimoto and N. Itzhaki, *JHEP* **12** (1999) 007, [hep-th/9911057](#)
25. “Monopoles and Dyons in Non-commutative Geometry,” A. Hashimoto and K. Hashimoto, *JHEP* **11** (1999) 005, [hep-th/9909202](#)¹
26. “Noncommutative Yang-Mills and the AdS/CFT Correspondence,” A. Hashimoto and N. Itzhaki, *Phys. Lett.* **B465** (1999) 142-147, [hep-th/9907166](#)

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

27. "Can DLCQ Test the Maldacena Conjecture?" F. Antonuccio, A. Hashimoto, O. Lunin, and S. Pinsky, *JHEP* **07** (1999) 029, [hep-th/9906087](#)
28. "Holographic Description of D3-Branes in Flat Space," A. Hashimoto, *Phys. Rev.* **D60** (1999) 127902, [hep-th/9903227](#)
29. "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](#)
30. "Supergravity solutions for localized intersections of branes," A. Hashimoto, *JHEP* **01** (1999) 018, [hep-th/9812159](#)
31. "Aspects of QCD dynamics from string theory," A. Hashimoto and Y. Oz, *Nucl. Phys.* **B548** (1999) 167-179, [hep-th/9809106](#).
32. "Exact Absorption Probabilities for the D3-Brane," S. S. Gubser and A. Hashimoto, *Comm. Math. Phys.* **203** (1999) 325-340, [hep-th/9805140](#)
33. "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](#)
34. "Shape of Branes Pulled by Strings," A. Hashimoto, *Phys. Rev.* **D57** (1998) 6441-6451, [hep-th/9711097](#)
35. "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](#)
36. "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](#)
37. "Perturbative Dynamics of Fractional Strings on Multiply Wound D-strings," A. Hashimoto *Int. J. Mod. Phys.* **A13** (1998) 903, [hep-th/9610250](#)
38. "Dynamics of Dirichlet-Neumann Open Strings on D-branes," A. Hashimoto, *Nucl. Phys.* **B496** (1997) 243-258, [hep-th/9608127](#)
39. "Decay of Excited D-branes," A. Hashimoto and I. R. Klebanov, *Phys. Lett.* **B381** (1996) 437-445, [hep-th/9604065](#)
40. "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](#)
41. "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](#)
42. "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](#)
43. "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](#)
44. "New Class of Universal Correlations in the Spectra of Hydrogen in a Magnetic Field," B. D. Simons, A. Hashimoto, M. Courtney, D. Kleppner, and B. L. Altshuler, *Phys. Rev. Lett.* **71** (1993) 2899

Publications in Conference Proceedings

1. "Holography and Non-commutative Geometry," A. Hashimoto, Proceedings of Summer Institute 1999, Japan
2. "Scattering of Strings from D-branes," A. Hashimoto and I. R. Klebanov, *Nucl. Phys.* (Proc.Suppl) **55B** (1997) 118-133, [hep-th/9611214](#)

3. “Wormholes, Matrix Models, and Liouville Gravity,” I. R. Klebanov and A. Hashimoto, *Nucl. Phys. (Proc. Suppl.)* **45B,C** (1996) 135-148

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