

### List of Publications

1. S. Gukov, J. Walcher, *Matrix factorizations and Kauffman homology*, hep-th/0512298.
2. S. Gukov, K. Saraikin and C. Vafa, *The entropic principle and asymptotic freedom*, Phys. Rev. D **73** (2006) 066010, hep-th/0509109.
3. N. M. Dunfield, S. Gukov and J. Rasmussen, *The Superpolynomial for Knot Homologies*, to appear in the Experiment. Math., math.gt/0505662.
4. S. Gukov, K. Saraikin and C. Vafa, *A stringy wave function for an  $S^3$  cosmology*, Phys. Rev. D **73** (2006) 066009, hep-th/0505204.
5. S. Gukov, *M-theory on manifolds with exceptional holonomy*, proceedings of the School on Geometry and String Theory, Cambridge, England, 24 Mar - 20 Apr 2002.
6. S. Gukov, A. Schwarz and C. Vafa, *Khovanov-Rozansky homology and topological strings*, Lett. Math. Phys. **74** (2005) 53, hep-th/0412243.
7. R. Dijkgraaf, S. Gukov, A. Neitzke, C. Vafa, *Topological M-theory as Unification of Form Theories of Gravity*, hep-th/0411073.
8. B. Acharya, S. Gukov, *M theory and Singularities of Exceptional Holonomy Manifolds*, Phys. Rept. **392** (2004) 121, hep-th/0409191.
9. S. Gukov, L. Motl and A. Neitzke, *Equivalence of twistor prescriptions for super Yang-Mills*, hep-th/0404085.
10. S. Gukov, E. Martinec, G. W. Moore and A. Strominger, *An index for 2D field theories with large  $N = 4$  superconformal symmetry*, hep-th/0404023.
11. S. Gukov, E. Martinec, G. W. Moore and A. Strominger, *Chern-Simons gauge theory and the  $AdS_3/CFT_2$  correspondence*, Ian Kogan Memorial Volume "From Fields to Strings: Circumnavigating Theoretical Physics," hep-th/0403225.
12. S. Gukov, E. Martinec, G. W. Moore and A. Strominger, *The search for a holographic dual to  $AdS_3 \times S^3 \times S^3 \times S^1$* , Ian Kogan Memorial Volume "From Fields to Strings: Circumnavigating Theoretical Physics," hep-th/0403090.
13. S. Gukov, T. Takayanagi and N. Toumbas, *Flux backgrounds in 2D string theory*, JHEP **0403** (2004) 017, hep-th/0312208.
14. S. Gukov, S. Kachru, X. Liu and L. McAllister, *Heterotic moduli stabilization with fractional Chern-Simons invariants*, Phys. Rev. D **69** (2004) 086008, hep-th/0310159.
15. S. Gukov, *M-Theory On Manifolds With Exceptional Holonomy*, Fortsch. Phys. **51** (2003) 719.

16. S. Gukov, *Three-dimensional quantum gravity, Chern-Simons theory, and the A-polynomial*, Commun. Math. Phys. **255** (2005) 577, hep-th/0306165.
17. R. Dijkgraaf, S. Gukov, V. A. Kazakov and C. Vafa, *Perturbative analysis of gauged matrix models*, Phys. Rev. D **68** (2003) 045007, hep-th/0210238.
18. S. Gukov, J. Sparks and D. Tong, *Conifold transitions and five-brane condensation in M-theory on Spin(7) manifolds*, Class. Quant. Grav. **20** (2003) 665, hep-th/0207244.
19. S. Gukov and M. Haack, *IIA String Theory on Calabi-Yau Fourfolds with Background Fluxes*, Nucl. Phys. **B639** (2002) 95, hep-th/0203267.
20. S. Gukov, S. T. Yau and E. Zaslow, *Duality and Fibrations on G(2) Manifolds*, proceedings of the 9th Gokova Geometry/Topology Conference, Turkey (2002), hep-th/0203217.
21. S. Gukov and C. Vafa, *Rational Conformal Field Theories and Complex Multiplication*, Commun. Math. Phys. **246** (2004) 181, hep-th/0203213.
22. S. Gukov and D. Tong, *D-brane Probes of Special Holonomy Manifolds, and Dynamics of N = 1 Three-dimensional Gauge Theories*, JHEP **0204** (2002) 050, hep-th/0202126.
23. S. Gukov and D. Tong, *D-brane Probes of G(2) Holonomy Manifolds*, Phys. Rev. **D66** (2002) 087901, hep-th/0202125.
24. B. Acharya, X. de la Ossa and S. Gukov, *G-flux, Supersymmetry and Spin(7) Manifolds*, JHEP **0209** (2002) 047, hep-th/0201227.
25. S. Gukov, J. Sparks, *M-Theory on Spin(7) Manifolds*, Nucl. Phys. **B625** (2002) 3, hep-th/0109025.
26. N. Berkovits, S. Gukov, and B. Vallilo, *Superstrings in 2D Backgrounds with R-R Flux and New Extremal Black Holes*, Nucl. Phys. **B614** (2001) 195, hep-th/0107140.
27. A. Brandhuber, J. Gomis, S. Gubser, and S. Gukov, *Gauge Theory at Large N and New G2 Holonomy Metrics*, Nucl. Phys. **B611** (2001) 179, hep-th/0106034.
28. K. Behrndt, S. Gukov, and M. Shmakova, *Domain Walls, Black Holes, and Supersymmetric Quantum Mechanics*, Nucl. Phys. **B601** (2001) 49, hep-th/0101119.
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32. K. Behrndt and S. Gukov, *Domain Walls and Superpotentials in M Theory on Calabi-Yau Three-Folds*, Nucl. Phys. **B580** (2000) 225, hep-th/0001082.
33. S. Gukov, *Toric Diagrams, Integrable Spin Chains, and Their Application in String Theory*, AMS volume “Toric Geometry and String Theory”, V.V. Batyrev, editor.
34. S. Gukov, *Solitons, Superpotentials and Calibrations*, Nucl. Phys. **B574** (2000) 169, hep-th/9911011.
35. S. Gukov and V. Periwal, *D-brane phase transitions and monodromy in K-theory*, J. Geom. Phys. **34** (2000) 263, hep-th/9908166.
36. S. Gukov, *K-theory and D-branes on Non-Commutative Tori*, proceedings of the ASI Summer School “Progress in String Theory and M-Theory”, Cargèse, May 24 – June 5, 1999.
37. S. Gukov, C. Vafa and E. Witten, *CFT’s from Calabi-Yau four-folds*, Nucl. Phys. **B584** (2000) 69, hep-th/9906070.
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43. S. Gukov, I.R. Klebanov and A.M. Polyakov, *Dynamics of  $(n, 1)$  Strings*, Phys. Lett. **B423** (1998) 64, hep-th/9711112.
44. A. Gorsky, S. Gukov and A. Mironov, *SUSY field theories, integrable systems and their stringy/brane origin – II*, Nucl. Phys. **B518** (1998) 689, hep-th/9710239.
45. S. Gukov, *Seiberg-Witten Solution from Matrix Theory*, hep-th/9709138.
46. S. Gukov, *Introduction into String Dualities*, Phys. Usp. **41** (1998) 627.
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48. S. Gukov, *Supersymmetric Spin Glass*, JETP Lett. **65** No. 8 (1997) 657, hep-th/9702063.
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