

## Publication List

Bong Lian

September 2007

1. (with A. Linshaw and B. Song), *Chiral Equivariant Cohomology of Spheres*, preprint.
2. (with A. Linshaw and B. Song), *Chiral Equivariant Cohomology III*, preprint.
3. (with J. Wiczer), *Genus Zero Modular Functions*, preprint.
4. (with A. Linshaw), *Howe Pair and Vertex Algebras*, to appear in Journal of Algebra.
5. (with A. Linshaw and B. Song), *Chiral Equivariant Cohomology II*, math.DG/0607223, to appear in Transactions of AMS.
6. (with B. Song), *A Convexity Theorem and Reduced Delzant Spaces*, to appear in Topology.
7. (with A. Linshaw), *Chiral Equivariant Cohomology I*, Advances in Math. 209 (2007) 99-161.
8. *An Introduction to Chiral Equivariant Cohomology*, proceedings of the International Congress of Chinese Mathematicians, Hong Kong 2005.
9. (with S. Hosono, K. Oguiso and S.T. Yau), *Counting Unimodular Lattices in  $\mathbf{R}^{r,s}$* , preprint.
10. (with A. Todorov and S.-T. Yau), *Maximal Unipotent Monodromy for Complete Intersection CY Manifolds*, Amer. J. Math. 127 (2005), no. 1, 1–50.
11. (with S. Hosono, K. Oguiso and S.T. Yau), *Autoequivalences of Derived Category of A K3 Surface and Monodromy Transformations*, J. Algebraic Geom. 13 (2004), no. 3, 513–545.
12. (with S. Hosono, K. Oguiso and S.T. Yau), *Counting Fourier-Mukai Partners and Applications*, in Algebraic structures and moduli spaces, 177–192, CRM Proc. Lecture Notes, 38, Amer. Math. Soc., Providence, RI, 2004.
13. (with S. Hosono, K. Oguiso and S.T. Yau),  *$c=2$  Rational Conformal Field Theories via the Gauss Product*, hep-th/0211230, Comm. Math. Phys. 241 (2003) 245-286.
14. (with S. Hosono, K. Oguiso and S.T. Yau), *Kummer structures on a K3 surface - An old question of T. Shioda*, math.AG/0202082, Duke Math. Journ. Vol. 120. No. 3 (2003) 635-647.
15. (with C.H. Liu, K. Liu and S.T. Yau),  *$S^1$ -fixed points of Quot Schemes and Mirror Principle computations*, math.AG/0111256, Contemp. Math. vol. 322 (2003) 165-194.
16. (with K. Liu and S.T. Yau), *Towards a Mirror Principle of Higher Genus*, Conference Proceedings on Geometry and Physics August 2001, Zhejiang Univ, Hangzhou. AMS/IP Studies in Adv. Math. vol. 29 (2002) 77-86.
17. (with K. Liu and S.T. Yau), *Some Applications of Mirror Principle*, Conference Proceedings SISTAG July 2001, Contemp. Math. vol. 314 (2002) 161-167.
18. (with S.T. Yau), *The  $n$ th Root of the Mirror Map*, Conference Proceedings on Arithmetic and Physics of Calabi-Yau Varieties, Fields Inst. Aug 2001, Fields Inst. Comm. Vol. 38 (2003) 195-199.
19. (with C.H. Liu and S.-T. Yau), *A Reconstruction of Euler Data*, Journ. Alg. Geom. 12 (2003) 269-284.

20. (with K. Liu and S.-T. Yau), *Mirror Principle IV*, *Surveys Diff. Geom.* vol. 7 (2001) 475-496.
21. (with K. Liu and S.-T. Yau), *A Survey of Mirror Principle*, *AMS/IP Studies in Adv. Math.* Vol. 33 (2002) 3-10.
22. (with T. Hübsch and S.T. Yau), *A quantum Lefschetz  $SL(2, C)$  action*, in preparation.
23. (with K. Liu and S.-T. Yau), *Mirror Principle III*, *Asian J. Math.* 3 (2000), no. 4, 771-800.
24. (with S.-T. Yau), *A Tour of Mirror Symmetry, First International Congress of Chinese Mathematicians (Beijing, 1998)*, 115–127, *AMS/IP Stud. Adv. Math.*, 20, Amer. Math. Soc., Providence, RI, 2001.
25. (with S.-T. Yau), *Differential Equations from Mirror Symmetry*, *Surveys Diff. Geom.* Vol. 5 (1999) 510-526.
26. *Lectures on Mirror Symmetry*, School on Differential Geometry at ICTP, Trieste 1999.
27. (with K. Liu and S.-T. Yau), *Mirror Principle, A Survey*, *Current Developments in Mathematics 1998* (Cambridge, MA), 35-82, Int. Press, Somerville, MA, 1999.
28. (with K. Liu and S.-T. Yau), *Mirror Principle II*, *Asian J. Math.* Vol. 3, No. 1 (1999) 109-146.
29. (with K. Liu and S.-T. Yau), *The Candelas-de la Ossa-Green-Parkes Formula*, *Nucl. Phys.* B67 (1999) 106-114.
30. (with K. Liu and S.-T. Yau), *Mirror Principle I*, *Asian J. Math.* Vol. 1, No. 4 (1997) 729-763.
31. (with A. Klemm, S.S. Roan and S.-T. Yau), *Calabi-Yau fourfolds for M- and F-theory compactifications*, hep-th/9701023, *Nucl. Phys.* B518 (1999) 515-574.
32. (with S. Hosono and S.-T. Yau), *Maximal degeneracy points of GKZ systems*, alg-geom/9603014, *JAMS* Vol. 10, No. 2 (1997) 427-443.
33. (with S. Hosono and S.-T. Yau), *Calabi-Yau varieties and pencils of K3 surfaces*, alg-geom/9603020.
34. (with S. Hosono) *GKZ hypergeometric systems and applications to mirror symmetry*, *Frontiers in quantum field theory (Osaka, 1995)*, 86–95, World Sci. Publishing, River Edge, NJ, 1996.
35. (with S. Hosono and S.-T. Yau), *GKZ-Generalized Hypergeometric Systems in Mirror Symmetry of Calabi-Yau Hypersurfaces*, alg-geom/9511001, *Commun. Math. Phys.* 182 (1996) 535-578.
36. (with S.-T. Yau), *Arithmetic properties of mirror maps and quantum couplings*, *Commun. Math. Phys.* 176, no. 1 (1996).
37. (with S.-T. Yau), *Integrality of Certain Exponential Series, (Mirror maps, modular relations and hypergeometric series I)*, hep-th/9507151, *Algebra and geometry (Taipei, 1995)*, 215–227, *Lect. Algebra Geom.*, 2, Internat. Press, Cambridge, MA, 1998.
38. (with S.-T. Yau), *Mirror maps, modular relations and hypergeometric series II*, in *Proceedings of the Conference on S-duality in Trieste ICTP 1995*, *Nucl. Phys.* B46 (1996) 248-262, hep-th/9507153.
39. (with G.J. Zuckerman), *From String Backgrounds to Topological Field Theories*, *RIMS Proceedings of Symposium on BRS Symmetry 1995*, hep-th/9512039.

40. (with G.J. Zuckerman), *Algebraic and Geometric Structures in String Backgrounds*, hep-th/9506210, Strings '95 (Los Angeles, CA, 1995), 323–335, World Sci. Publishing, River Edge, NJ, 1996.
41. (with G.J. Zuckerman), *Commutative quantum operator algebras*, Jour. Pure Appl. Alg. 100 (1995) 117-139, q-alg/9501014.
42. (with G.J. Zuckerman), *Moonshine cohomology*, RIMS proceedings on Vertex Operator Algebras and the Monster 1995, q-alg/9501025.
43. (with S.-T. Yau), *Mirror symmetry, rational curves on algebraic manifolds and hypergeometric series*, XIth International Congress of Mathematical Physics (Paris, 1994), 163–184, Internat. Press, Cambridge, MA, 1995.
44. (with A. Klemm, S.-S. Roan and S.-T. Yau), *A note on ODEs from mirror symmetry*, *Functional analysis on the eve of the 21st century*, Vol. II (New Brunswick, NJ, 1993), 301–323, Progr. Math., 132, Birkhuser Boston, Boston, MA, 1996.
45. (with G.J. Zuckerman), *Some classical and quantum algebras*, Prog. Math. Vol 123 (1994) 509-529, hep-th/9404010.
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47. *On the classification of simple vertex operator algebras*, Commun. Math. Phys. 163 (1994) 307.
48. (with G.J. Zuckerman), *Semi-infinite homology and 2D gravity (I)*, Commun. Math. Phys. 145 (1992) 561.
49. (with G.J. Zuckerman), *2d gravity with  $c=1$  matter*, Phys. Lett. B266 (1991) 21.
50. (with G.J. Zuckerman), *New selection rules and physical states in 2d gravity; conformal gauge*, Phys. Lett B254, No.3,4 (1991) 417.
51. (with G.J. Zuckerman), *An application of infinite-dimensional Lie theory to semisimple Lie groups*, Contemp. Math. 145 (1993) 249-257.
52. (with G.J. Zuckerman), *BRST cohomology and non-compact coset models*, *Proceedings of the XXth International Conference on Differential Geometric Methods in Theoretical Physics*, Vol. 1, 2 (New York, 1991), 849–865, World Sci. Publishing, River Edge, NJ, 1992.
53. (with G.J. Zuckerman), *BRST cohomology and highest weight vectors I*, Commun. Math. Phys. 135 (1991) 547.
54. (with G.J. Zuckerman), *BRST cohomology of the super-Virasoro algebras*, Commun. Math. Phys. 125 (1989) 301.
55. (with C.A. Lin), *Chaotic behavior in a low-order unforced, inviscid barotropic model*, PAGEOPH 124, No.6 (1986).