Hirosi Ooguri

Fred Kavli Professor of Theoretical Physics and Mathematics
Founding Director, Walter Burke Institute for Theoretical Physics
California Institute of Technology

Address:

California Institute of Technology, Mail Code 452-48, Pasadena, CA 91125, USA
email: ooguri at caltech.edu, website: http://ooguri.caltech.edu/

Education:

1984	Kyoto University	B.S. in Physics
1986	Kyoto University	M.A. in Physics
1989	University of Tokyo	Ph.D. in Physics

Employment:

1986 – 1989	University of Tokyo	Assistant Professor
1988 – 1989	Institute for Advanced Study, Princeton	Member
1989 – 1990	University of Chicago	Assistant Professor
1990 – 1994	Kyoto University	Associate Professor
1994 – 2000	University of California, Berkeley	Professor
2000 – 2007	Califoria Institute of Technology	Professor
2007 – present	Califoria Institute of Technology	Fred Kavli Professor
2010 – 2015	Califoria Institute of Technology, Division of Physics, Mathematics, and Astronomy	Deputy Chair
2015 – present	Califoria Institute of Technology, Walter Burke Institute for Theoretical Physics	Founding Director

Awards & Honors:

2008	American Mathematical Society	Eisenbud Prize for Mathematics and Physics
2008	Alexander von Humboldt Foundation	Humboldt Research Award
2009	Mathematical Society of Japan	Takagi Lecturer
2009	Nishina Memorial Foundation	Nishina Memorial Prize
2012	Simons Foundation	Simons Investigator
2012	American Mathematical Society	Fellow
2014	Kodansha	Kodansha Prize for Science Books
2016	International Planetarium Society	Best Educational Product Award
2016	Chunichi Shimbun	Chunichi Cultural Prize
2016	American Academy of Arts and Sciences	Member

Professional Activities:

1996 – 2000	Lawrence Berkeley National Laboratory	Faculty Senior Scientist
2007 – present	Kavli IPMU, University of Tokyo	Principal Investigator
2003 – present	Aspen Center for Physics	Member
2010 – 2011	Aspen Center for Physics	Scientific Secretary
2011 – 2016	Aspen Center for Physics	Trustee
2016 – present	Aspen Center for Physics	President

Advisory Boards:

Kavli Institute for Theoretical Physics, University of California, Santa Barbara (2005 - 2008),
Banff International Research Station, Banff, Canada (2008 - 2011),
International Solvay Institute, Brussels, Belgium (2008 - present),
Theory Group, CERN (2016).

Editorial Boards:

Journal of High Energy Physics (1997 – 2006),
Advances in Theoretical and Mathematical Physics (1997 – present)
Nuclear Physics B (1998 – 2013),
Physical Review D (2006 – 2009),
Communications in Mathematical Physics (2014 – 2015).

Education & Outreach:

- List of former students and postdoctoral fellows is available at http://ooguri.caltech.edu/students/.
- Voted as one of best instructors by Class of 1999 of the University of California, Berkeley.
- 5 popular science books in Japanese, which have been translated into Chinese and Korean.
- Over 30 public lectures worldwide, most recently at Collège de France, Paris (July 2, 2016).
- Advisor for "The Man from 9 Dimensions," an award-winning 3D dome theater movie.

Publication

1. **"Shortening Anomalies in Supersymmetric Theories"**
   J. Gomis, Z. Komargodski, H. Ooguri, N. Seiberg and Y. Wang.
   arXiv:1611.03101 [hep-th]
   CALT-TH-2016-031, IPMU-16-016, PUPT-2513

2. **"Non-supersymmetric AdS and the Swampland"**
   H. Ooguri and C. Vafa.
   arXiv:1610.01533 [hep-th]
   CALT-TH-2016-027, IPMU16-0139

3. **"Gravitational Positive Energy Theorems from Information Inequalities"**
   N. Lashkari, J. Lin, H. Ooguri, B. Stoica and M. Van Raamsdonk.
   arXiv:1605.01075 [hep-th]
   DOI:10.1093/ptep/ptw139
   PTEP **2016**, no. 12, 12C109 (2016)

4. **"Bulk Local States and Crosscaps in Holographic CFT"**
   Y. Nakayama and H. Ooguri.
   arXiv:1605.00334 [hep-th]
   DOI:10.1007/JHEP10(2016)085
   JHEP **1610**, 085 (2016)
   CALT-TH-2016-010, IPMU16-0057, RUP-16-12

5. **"Reflections on Conformal Spectra"**
   H. Kim, P. Kravchuk and H. Ooguri.
   arXiv:1510.08772 [hep-th]
   DOI:10.1007/JHEP04(2016)184
   JHEP **1604**, 184 (2016)
   CALT-TH-2015-053, IPMU-15-0184

6. **"Bulk Locality and Boundary Creating Operators"**
   Y. Nakayama and H. Ooguri.
   arXiv:1507.04130 [hep-th]
   DOI:10.1007/JHEP10(2015)114
   JHEP **1510**, 114 (2015)
   CALT-TH-2015-037, IPMU-15-0105

7. **"The Entropic Principle and the Landscape in SUSY Gauge Theories"**
   H. Ooguri.
   DOI:10.1142/9789814293242_0005
   Subnucl. Ser. **45**, 117 (2009).

8. **"The Holographic Entropy Cone"**
   N. Bao, S. Nezami, H. Ooguri, B. Stoica, J. Sully and M. Walter.
   arXiv:1505.07839 [hep-th]
   DOI:10.1007/JHEP09(2015)130
   JHEP **1509**, 130 (2015)
   CALT-TH-2015-020, IPMU15-0074, SLAC-PUB-16294, SU-ITP-15-08

9. **"Locality of Gravitational Systems from Entanglement of Conformal Field Theories"**
   J. Lin, M. Marcolli, H. Ooguri and B. Stoica.

arXiv:1412.1879 [hep-th]
DOI:10.1103/PhysRevLett.114.221601
Phys. Rev. Lett. **114**, 221601 (2015)
CALT-TH-2014-162, IPMU14-0349

10. **"Hall Viscosity and Angular Momentum in Gapless Holographic Models"**
H. Liu, H. Ooguri and B. Stoica.
arXiv:1403.6047 [hep-th]
DOI:10.1103/PhysRevD.90.086007
Phys. Rev. D **90**, no. 8, 086007 (2014)
CALT-68-2880, IPMU14-0025, MIT-CTP-4537

11. **"Angular Momentum Generation by Parity Violation"**
H. Liu, H. Ooguri and B. Stoica.
arXiv:1311.5879 [hep-th]
DOI:10.1103/PhysRevD.89.106007
Phys. Rev. D **89**, no. 10, 106007 (2014)
CALT-68-2857, IPMU13-0193, MIT-CTP-4501

12. **"Out of Equilibrium Temperature from Holography"**
S. Nakamura and H. Ooguri.
arXiv:1309.4089 [hep-th]
DOI:10.1103/PhysRevD.88.126003
Phys. Rev. D **88**, no. 12, 126003 (2013)
CALT-68-2855, IPMU13-0164

13. **"Spontaneous Generation of Angular Momentum in Holographic Theories"**
H. Liu, H. Ooguri, B. Stoica and N. Yunes.
arXiv:1212.3666 [hep-th]
DOI:10.1103/PhysRevLett.110.211601
Phys. Rev. Lett. **110**, no. 21, 211601 (2013)
IPMU12-0227, MIT-CTP-4426

14. **"Modular Constraints on Calabi-Yau Compactifications"**
C. A. Keller and H. Ooguri.
arXiv:1209.4649 [hep-th]
DOI:10.1007/s00220-013-1797-8
Commun. Math. Phys. **324**, 107 (2013)

15. **"Lectures on topological string theory"**
H. Ooguri.
DOI:10.1007/978-3-642-25947-0_6
Lect. Notes Phys. **851**, 233 (2012).

16. **"Instability in magnetic materials with dynamical axion field"**
H. Ooguri and M. Oshikawa.
arXiv:1112.1414 [cond-mat.mes-hall]
DOI:10.1103/PhysRevLett.108.161803
Phys. Rev. Lett. **108**, 161803 (2012)
CALT-68-2848, IPMU11-0173

17. **"Comments on Worldsheet Description of the Omega Background"**
Y. Nakayama and H. Ooguri.
arXiv:1106.5503 [hep-th]
DOI:10.1016/j.nuclphysb.2011.11.010
Nucl. Phys. B **856**, 342 (2012)
CALT-68-2837, IPMU11-0094

18. **"Spatially Modulated Phase in Holographic Quark-Gluon Plasma"**
H. Ooguri and C. S. Park.

arXiv:1011.4144 [hep-th]
DOI:10.1103/PhysRevLett.106.061601
Phys. Rev. Lett. **106**, 061601 (2011)
CALT-68-2810, IPMU10-0201, SCIPP-10-20

19. **"Holographic End-Point of Spatially Modulated Phase Transition"**
H. Ooguri and C. S. Park.
arXiv:1007.3737 [hep-th]
DOI:10.1103/PhysRevD.82.126001
Phys. Rev. D **82**, 126001 (2010)
CALT-68-2796, IPMU10-0110

20. **"Wall Crossing As Seen By Matrix Models"**
H. Ooguri, P. Sulkowski and M. Yamazaki.
arXiv:1005.1293 [hep-th]
DOI:10.1007/s00220-011-1330-x
Commun. Math. Phys. **307**, 429 (2011)
AEI-2010-091, CALT-68-2786, IPMU10-0078

21. **"Notes on the K3 Surface and the Mathieu group M_{24}"**
T. Eguchi, H. Ooguri and Y. Tachikawa.
arXiv:1004.0956 [hep-th]
DOI:10.1080/10586458.2011.544585
Exper. Math. **20**, 91 (2011)
AEI-2010-048, CALT-68-2783, IPMU-10-0053, YITP-10-20

22. **"Supersymmetry Breaking and Gauge Mediation"**
R. Kitano, H. Ooguri and Y. Ookouchi.
arXiv:1001.4535 [hep-th]
DOI:10.1146/annurev.nucl.012809.104540
Ann. Rev. Nucl. Part. Sci. **60**, 491 (2010)
CALT-68-2771, IPMU10-0012, TU-863

23. **"Gravity Dual of Spatially Modulated Phase"**
S. Nakamura, H. Ooguri and C. S. Park.
arXiv:0911.0679 [hep-th]
DOI:10.1103/PhysRevD.81.044018
Phys. Rev. D **81**, 044018 (2010)
CALT-68-2754, IPMU09-0129, KUNS-2236

24. **"Wall Crossing and M-theory"**
M. Aganagic, H. Ooguri, C. Vafa and M. Yamazaki.
arXiv:0908.1194 [hep-th]
Publ. Res. Inst. Math. Sci. Kyoto **47**, 569 (2011)
CALT-68-2746, IPMU09-0091, UT-09-18

25. **"Supersymmetric non-relativistic geometries in M-theory"**
H. Ooguri and C. S. Park.
arXiv:0905.1954 [hep-th]
DOI:10.1016/j.nuclphysb.2009.08.021
Nucl. Phys. B **824**, 136 (2010)
CALT-68-2731, IPMU-09-0061

26. **"Emergent Calabi-Yau Geometry"**
H. Ooguri and M. Yamazaki.
arXiv:0902.3996 [hep-th]
DOI:10.1103/PhysRevLett.102.161601
Phys. Rev. Lett. **102**, 161601 (2009)
CALT-68-2721, IPMU09-0025, UT-09-04

27. **"Geometry As Seen By String Theory"**
H. Ooguri.
arXiv:0901.1881 [math.AG]
CALT-68-2718, IPMU-09-0004

28. **"Crystal Melting and Toric Calabi-Yau Manifolds"**
H. Ooguri and M. Yamazaki.
arXiv:0811.2801 [hep-th]
DOI:10.1007/s00220-009-0836-y
Commun. Math. Phys. **292**, 179 (2009)
CALT-68-2706, IPMU-08-0087, UT-08-30

29. **"Superconformal Chern-Simons Theories and the Squashed Seven Sphere"**
H. Ooguri and C. S. Park.
arXiv:0808.0500 [hep-th]
DOI:10.1088/1126-6708/2008/11/082
JHEP **0811**, 082 (2008)
CALT-68-2696, IPMU-08-0052

30. **"Current Correlators for General Gauge Mediation"**
H. Ooguri, Y. Ookouchi, C. S. Park and J. Song.
arXiv:0806.4733 [hep-th]
DOI:10.1016/j.nuclphysb.2008.09.017
Nucl. Phys. B **808**, 121 (2009)
CALT-68-2692, IPMU-08-0038

31. **"Extremal N=(2,2) 2D Conformal Field Theories and Constraints of Modularity"**
M. R. Gaberdiel, S. Gukov, C. A. Keller, G. W. Moore and H. Ooguri.
arXiv:0805.4216 [hep-th]
DOI:10.4310/CNTP.2008.v2.n4.a3
Commun. Num. Theor. Phys. **2**, 743 (2008)
CALT-68-2685, IPMU-08-0031, ITEP-TH-20-08

32. **"New Anomalies in Topological String Theory"**
P. L. H. Cook, H. Ooguri and J. Yang.
arXiv:0804.1120 [hep-th]
DOI:10.1143/PTPS.177.120
Prog. Theor. Phys. Suppl. **177**, 120 (2009)
CALT-68-2672, IPMU-08-0020

33. **"Metastable Vacua in Perturbed Seiberg-Witten Theories. Part 2. Fayet-Iliopoulos Terms and Kahler Normal Coordinates"**
J. Marsano, H. Ooguri, Y. Ookouchi and C. S. Park.
arXiv:0712.3305 [hep-th]
DOI:10.1016/j.nuclphysb.2008.01.014
Nucl. Phys. B **798**, 17 (2008)
CALT-68-2665, IPMU-07-0003

34. **"Comments on the Holomorphic Anomaly in Open Topological String Theory"**
P. L. H. Cook, H. Ooguri and J. Yang.
arXiv:0706.0511 [hep-th]
DOI:10.1016/j.physletb.2007.08.006
Phys. Lett. B **653**, 335 (2007)
CALT-68-2651

35. **"Metastable Vacua in Perturbed Seiberg-Witten Theories"**
H. Ooguri, Y. Ookouchi and C. S. Park.
arXiv:0704.3613 [hep-th]
DOI:10.4310/ATMP.2008.v12.n2.a5
Adv. Theor. Math. Phys. **12**, no. 2, 405 (2008)
CALT-68-2646, UT-07-14

36. **"Gauge Mediation in String Theory"**
T. Kawano, H. Ooguri and Y. Ookouchi.
arXiv:0704.1085 [hep-th]
DOI:10.1016/j.physletb.2007.06.056
Phys. Lett. B **652**, 40 (2007)
CALT-68-2642, UT-07-12

37. **"Nondecoupling of Maximal Supergravity from the Superstring"**
M. B. Green, H. Ooguri and J. H. Schwarz.
arXiv:0704.0777 [hep-th]
DOI:10.1103/PhysRevLett.99.041601
Phys. Rev. Lett. **99**, 041601 (2007)
CALT-68-2636, DAMTP-2007-25, UT-07-11

38. **"Baby universes and string theory"**
R. Dijkgraaf, R. Gopakumar, H. Ooguri and C. Vafa.
DOI:10.1142/S0218271806008978
Int. J. Mod. Phys. D **15**, 1581 (2006).

39. **"Direct Mediation of Meta-Stable Supersymmetry Breaking"**
R. Kitano, H. Ooguri and Y. Ookouchi.
hep-ph/0612139
DOI:10.1103/PhysRevD.75.045022
Phys. Rev. D **75**, 045022 (2007)
SLAC-PUB-12252, CALT-68-2621

40. **"Quantum Entanglement of Baby Universes"**
M. Aganagic, H. Ooguri and T. Okuda.
hep-th/0612067
DOI:10.1016/j.nuclphysb.2007.04.006
Nucl. Phys. B **778**, 36 (2007)
CALT-68-2622, NSF-KITP-06-118

41. **"Entropy of small black holes"**
H. Ooguri.
DOI:10.1143/PTPS.163.355
Prog. Theor. Phys. Suppl. **163**, 355 (2006).

42. **"Meta-Stable Supersymmetry Breaking Vacua on Intersecting Branes"**
H. Ooguri and Y. Ookouchi.
hep-th/0607183
DOI:10.1016/j.physletb.2006.08.035
Phys. Lett. B **641**, 323 (2006)
CALT-68-2604

43. **"Landscape of supersymmetry breaking vacua in geometrically realized gauge theories"**
H. Ooguri and Y. Ookouchi.
hep-th/0606061
DOI:10.1016/j.nuclphysb.2006.08.009
Nucl. Phys. B **755**, 239 (2006)
CALT-68-2602

44. **"On the Geometry of the String Landscape and the Swampland"**
H. Ooguri and C. Vafa.
hep-th/0605264
DOI:10.1016/j.nuclphysb.2006.10.033
Nucl. Phys. B **766**, 21 (2007)
CALT-68-2600, HUTP-06-A017

45. **"Baby universes in string theory"**
R. Dijkgraaf, R. Gopakumar, H. Ooguri and C. Vafa.
hep-th/0504221
DOI:10.1103/PhysRevD.73.066002
Phys. Rev. D **73**, 066002 (2006)
CALT-68-2557, HUTP-05-A019, ITFA-2005-14

46. **"Hartle-Hawking wave-function for flux compactifications"**
H. Ooguri, C. Vafa and E. P. Verlinde.
hep-th/0502211
DOI:10.1007/s11005-005-0022-x
Lett. Math. Phys. **74**, 311 (2005)
CALT-68-2543, HUTP-05-A005, ITFA-2005-05

47. **"Black holes, q-deformed 2d Yang-Mills, and non-perturbative topological strings"**
M. Aganagic, H. Ooguri, N. Saulina and C. Vafa.
hep-th/0411280
DOI:10.1016/j.nuclphysb.2005.02.035
Nucl. Phys. B **715**, 304 (2005)
CALT-68-2529, HUTP-04-A0049, UCB-PTH-04-33

48. **"Black hole attractors and the topological string"**
H. Ooguri, A. Strominger and C. Vafa.
hep-th/0405146
DOI:10.1103/PhysRevD.70.106007
Phys. Rev. D **70**, 106007 (2004)
HUTP-04-A020, CALT-68-2501

49. **"D-branes and phases on string world sheet"**
T. Okuda and H. Ooguri.
hep-th/0404101
DOI:10.1016/j.nuclphysb.2004.08.036
Nucl. Phys. B **699**, 135 (2004)
CALT-68-2491

50. **"S duality and topological strings"**
N. Nekrasov, H. Ooguri and C. Vafa.
hep-th/0403167
DOI:10.1088/1126-6708/2004/10/009
JHEP **0410**, 009 (2004)
CALT-68-2479, HUTP-04-A011, IHES-P-04-09, ITEP-TH-62-03

51. **"On the world sheet derivation of large N dualities for the superstring"**
N. Berkovits, H. Ooguri and C. Vafa.
hep-th/0310118
DOI:10.1007/s00220-004-1181-9
Commun. Math. Phys. **252**, 259 (2004)
IFT-P-044-2003, CALT-68-2455, HUTP-03-A064

52. **"Planar gravitational corrections for supersymmetric gauge theories"**
R. Dijkgraaf, M. T. Grisaru, H. Ooguri, C. Vafa and D. Zanon.
hep-th/0310061
DOI:10.1088/1126-6708/2004/04/028
JHEP **0404**, 028 (2004)
CALT-68-2454, HUTP-03-A062, ITFA-2003-46, IFUM-775-FT

53. **"Gravity induced C deformation"**
H. Ooguri and C. Vafa.
hep-th/0303063
DOI:10.4310/ATMP.2003.v7.n3.a2

Adv. Theor. Math. Phys. **7**, no. 3, 405 (2003)
CALT-68-2433, HUTP-03-1020

54. **"The C deformation of Gluino and nonplanar diagrams"**
H. Ooguri and C. Vafa.
hep-th/0302109
DOI:10.4310/ATMP.2003.v7.n1.a3
Adv. Theor. Math. Phys. **7**, no. 1, 53 (2003)
CALT-68-2428, HUTP-03-A014

55. **"Quantum aspects of Seiberg-Witten map in noncommutative Chern-Simons theory"**
K. Kaminsky, Y. Okawa and H. Ooguri.
hep-th/0301133
DOI:10.1016/S0550-3213(03)00383-3
Nucl. Phys. B **663**, 33 (2003)
CALT-68-2420

56. **"Inside the horizon with AdS / CFT"**
P. Kraus, H. Ooguri and S. Shenker.
hep-th/0212277
DOI:10.1103/PhysRevD.67.124022
Phys. Rev. D **67**, 124022 (2003)
UCLA-02-TEP-41, CALT-68-2421, SU-ITP-02-45

57. **"World sheet derivation of a large N duality"**
H. Ooguri and C. Vafa.
hep-th/0205297
DOI:10.1016/S0550-3213(02)00620-X
Nucl. Phys. B **641**, 3 (2002)
CALT-68-2386, CITUSC-02-019, HUTP-02-A018

58. **"Penrose limit of N = 1 gauge theories"**
J. Gomis and H. Ooguri.
hep-th/0202157
DOI:10.1016/S0550-3213(02)00396-6
Nucl. Phys. B **635**, 106 (2002)
CALT-68-2373, CITUSC-02-006

59. **"Boundary states for AdS(2) branes in AdS(3)"**
P. Lee, H. Ooguri and J. w. Park.
hep-th/0112188
DOI:10.1016/S0550-3213(02)00239-0
Nucl. Phys. B **632**, 283 (2002)
CALT-68-2363, CITUSC-01-049

60. **"Permeable conformal walls and holography"**
C. Bachas, J. de Boer, R. Dijkgraaf and H. Ooguri.
hep-th/0111210
DOI:10.1088/1126-6708/2002/06/027
JHEP **0206**, 027 (2002)
CALT-68-2361, CITUSC-01-045, ITFA-2001-33, LPTENS-01-42

61. **"Strings in AdS(3) and the SL(2,R) WZW model. Part 3. Correlation functions"**
J. M. Maldacena and H. Ooguri.
hep-th/0111180
DOI:10.1103/PhysRevD.65.106006
Phys. Rev. D **65**, 106006 (2002)
CALT-68-2360, CITUSC-01-042

62. **"Holography and defect conformal field theories"**
O. DeWolfe, D. Z. Freedman and H. Ooguri.
hep-th/0111135
DOI:10.1103/PhysRevD.66.025009
Phys. Rev. D **66**, 025009 (2002)
CALT-68-2359, CITUSC-01-041, NSF-ITP-01-172, MIT-CTP-3212

63. **"Open strings on AdS(2) branes"**
P. Lee, H. Ooguri, J. W. Park and J. Tannenhauser.
hep-th/0106129
DOI:10.1016/S0550-3213(01)00333-9
Nucl. Phys. B **610**, 3 (2001)
CALT-68-2332, CITUSC-01-20, NSF-ITP-01-57

64. **"Seiberg-Witten transforms of noncommutative solitons"**
K. Hashimoto and H. Ooguri.
hep-th/0105311
DOI:10.1103/PhysRevD.64.106005
Phys. Rev. D **64**, 106005 (2001)
CALT-68-2331, CITUSC-01-019, NSF-ITP-01-42

65. **"Strings in AdS(3) and SL(2,R) WZW model"**
H. Ooguri.
DOI:10.1142/S0217751X01003809
Int. J. Mod. Phys. A **16**, 677 (2001).

66. **"An Exact solution to Seiberg-Witten equation of noncommutative gauge theory"**
Y. Okawa and H. Ooguri.
hep-th/0104036
DOI:10.1103/PhysRevD.64.046009
Phys. Rev. D **64**, 046009 (2001)
CALT-68-2325, CITUSC-01-010, NSF-ITP-01-25

67. **"Energy momentum tensors in matrix theory and in noncommutative gauge theories"**
Y. Okawa and H. Ooguri.
hep-th/0103124
CALT-68-2319, CITUSC-01-003

68. **"How noncommutative gauge theories couple to gravity"**
Y. Okawa and H. Ooguri.
hep-th/0012218
DOI:10.1016/S0550-3213(01)00038-4
Nucl. Phys. B **599**, 55 (2001)
CALT-68-2311, CITUSC-00-066

69. **"Nonrelativistic closed string theory"**
J. Gomis and H. Ooguri.
hep-th/0009181
DOI:10.1063/1.1372697
J. Math. Phys. **42**, 3127 (2001)
CALT-68-2298, CITUSC-00-055

70. **"Holography in superspace"**
H. Ooguri, J. Rahmfeld, H. Robins and J. Tannenhauser.
hep-th/0007104
DOI:10.1088/1126-6708/2000/07/045
JHEP **0007**, 045 (2000)
CALT-68-2268, UCB-PTH-00-14, CITUSC-00-026

71. **"Strings in AdS(3) and the SL(2,R) WZW model. Part 2. Euclidean black hole"**
J. M. Maldacena, H. Ooguri and J. Son.
hep-th/0005183
DOI:10.1063/1.1377039
J. Math. Phys. **42**, 2961 (2001)
CALT-68-2266, CITUSC-00-021, HUTP-00-A009, UCB-PTH-00-10

72. **"Strings in AdS(3) and SL(2,R) WZW model 1.: The Spectrum"**
J. M. Maldacena and H. Ooguri.
hep-th/0001053
DOI:10.1063/1.1377273
J. Math. Phys. **42**, 2929 (2001)
CALT-68-2245, CITUSC-99-010, HUTP-99-A027, LBNL-44375, UCB-PTH-99-48, LBL-44375

73. **"Wilson loops and minimum surfaces"**
H. Ooguri.
DOI:10.1143/PTPS.134.153
Prog. Theor. Phys. Suppl. **134**, 153 (1999).

74. **"Knot invariants and topological strings"**
H. Ooguri and C. Vafa.
hep-th/9912123
DOI:10.1016/S0550-3213(00)00118-8
Nucl. Phys. B **577**, 419 (2000)
CALT-68-2251, CITUSC-99-008, HUTP-99-A070, LBNL-44695, UCB-PTH-99-54, LBL-44695

75. **"Gauge theory and string theory: An Introduction to the AdS / CFT correspondence"**
H. Ooguri.
hep-lat/9911027
DOI:10.1016/S0920-5632(00)91597-4
Nucl. Phys. Proc. Suppl. **83**, 77 (2000)

76. **"Wilson loops in large N theories"**
H. Ooguri.
hep-th/9909040
DOI:10.1088/0264-9381/17/5/331
Class. Quant. Grav. **17**, 1225 (2000)
UCB-PTH-99-38, LBNL-44209, LBL-44209

77. **"Large N field theories, string theory and gravity"**
O. Aharony, S. S. Gubser, J. M. Maldacena, H. Ooguri and Y. Oz.
hep-th/9905111
DOI:10.1016/S0370-1573(99)00083-6
Phys. Rept. **323**, 183 (2000)
CERN-TH-99-122, HUTP-99-A027, LBNL-43113, RU-99-18, UCB-PTH-99-16, LBL-43113

78. **"Wilson loops and minimal surfaces"**
N. Drukker, D. J. Gross and H. Ooguri.
hep-th/9904191
DOI:10.1103/PhysRevD.60.125006
Phys. Rev. D **60**, 125006 (1999)
UCB-PTH-99-11, LBNL-43079, NSF-ITP-99-22, LBL-43079

79. **"Gauge theories on branes"**
H. Ooguri.
DOI:10.1016/S0920-5632(98)00129-7
Nucl. Phys. Proc. Suppl. **67**, 172 (1998).

80. **"Gauge theory and gravity: A new synthesis"**
H. Ooguri.
In *Goeteborg 1998, Novelties in string theory* 1-6

81. **"String theory on AdS(3)"**
J. de Boer, H. Ooguri, H. Robins and J. Tannenhauser.
hep-th/9812046
DOI:10.1088/1126-6708/1998/12/026
JHEP **9812**, 026 (1998)
UCB-PTH-98-43, LBNL-42229, LBL-42229

82. **"On the field theory limit of D instantons"**
H. Ooguri and K. Skenderis.
hep-th/9810128
DOI:10.1088/1126-6708/1998/11/013
JHEP **9811**, 013 (1998)
UCB-PTH-98-49A, LBNL-42387, SPIN-1998-01, LBL-42387

83. **"Glueballs and their Kaluza-Klein cousins"**
H. Ooguri, H. Robins and J. Tannenhauser.
hep-th/9806171
DOI:10.1016/S0370-2693(98)00877-6
Phys. Lett. B **437**, 77 (1998)
UCB-PTH-98-35, LBNL-41948, LBL-41948, NSF-ITP-98-070

84. **"Glueball mass spectrum from supergravity"**
C. Csaki, H. Ooguri, Y. Oz and J. Terning.
hep-th/9806021
DOI:10.1088/1126-6708/1999/01/017
JHEP **9901**, 017 (1999)
UCB-PTH-98-30, LBL-41875, LBNL-41875, NSF-ITP-98-068

85. **"Aspects of large N gauge theory dynamics as seen by string theory"**
D. J. Gross and H. Ooguri.
hep-th/9805129
DOI:10.1103/PhysRevD.58.106002
Phys. Rev. D **58**, 106002 (1998)
ITP-NSF-98-064, UCB-PTH-98-27, LBNL-41850, LBL-41850

86. **"Spectrum of large N gauge theory from supergravity"**
G. T. Horowitz and H. Ooguri.
hep-th/9802116
DOI:10.1103/PhysRevLett.80.4116
Phys. Rev. Lett. **80**, 4116 (1998)

87. **"Membrane scattering in curved space with M momentum transfer"**
J. de Boer, K. Hori and H. Ooguri.
hep-th/9802005
DOI:10.1016/S0550-3213(98)00253-3
Nucl. Phys. B **525**, 257 (1998)
LBL-41152, LBNL-41152, UCB-PTH-97-61, NSF-ITP-98-002

88. **"Branes and dynamical supersymmetry breaking"**
J. de Boer, K. Hori, H. Ooguri and Y. Oz.
hep-th/9801060
DOI:10.1016/S0550-3213(98)00252-1
Nucl. Phys. B **522**, 20 (1998)
LBL-41198, LBNL-41198, UCB-PTH-97-68

89. **"Geometry and quantum field theory: A brief introduction"**
B. R. Greene and H. Ooguri.
In *Greene, B. (ed.): Yau, S.T. (ed.): Mirror symmetry II* 3-27

90. **"Kahler potential and higher derivative terms from M theory five-brane"**
J. de Boer, K. Hori, H. Ooguri and Y. Oz.
hep-th/9711143
DOI:10.1016/S0550-3213(98)00152-7
Nucl. Phys. B **518**, 173 (1998)

91. **"Why matrix theory is hard"**
M. R. Douglas and H. Ooguri.
hep-th/9710178
DOI:10.1016/S0370-2693(98)00114-2
Phys. Lett. B **425**, 71 (1998)
LBL-40889, LBNL-40889, RU-97, UCB-PTH-97-51

92. **"M theory five-brane and SQCD"**
H. Ooguri.
hep-th/9709211
DOI:10.1016/S0920-5632(98)00142-X
Nucl. Phys. Proc. Suppl. **68**, 84 (1998)
UCB-PTH-97-49, LBL-40843, LBNL-40843

93. **"D-brane actions on Kahler manifolds"**
M. R. Douglas, A. Kato and H. Ooguri.
hep-th/9708012
Adv. Theor. Math. Phys. **1**, 237 (1998)
LBL-40515, LBNL-40515, RU-97-67, UCB-PTH-97-36

94. **"Strong coupling dynamics of four-dimensional N=1 gauge theories from M theory five-brane"**
K. Hori, H. Ooguri and Y. Oz.
hep-th/9706082
Adv. Theor. Math. Phys. **1**, 1 (1998)
LBL-40336, LBNL-40336, UCB-PTH-97-24

95. **"NonAbelian conifold transitions and N=4 dualities in three-dimensions"**
K. Hori, H. Ooguri and C. Vafa.
hep-th/9705220
DOI:10.1016/S0550-3213(97)00529-4
Nucl. Phys. B **504**, 147 (1997)
HUTP-97-A024, LBL-40349, LBNL-40349, UCB-PTH-97-27

96. **"Issues in (M)atrix model compactification"**
M. R. Douglas, H. Ooguri and S. H. Shenker.
hep-th/9702203
DOI:10.1016/S0370-2693(97)00424-3
Phys. Lett. B **402**, 36 (1997)
RU-97-09, UCB-PTH-97-07, LBL-40003, LBNL-40003

97. **"Geometry of N=1 dualities in four-dimensions"**
H. Ooguri and C. Vafa.
hep-th/9702180
DOI:10.1016/S0550-3213(97)00304-0
Nucl. Phys. B **500**, 62 (1997)
HUPT-97-A010, UCB-PTH-97-11, LBL-40032, LBNL-40032

98. **"Non-Abelian conifold transitions and N=4 dualities in three dimensions"**
K. Hori, H. Ooguri and C. Vafa.

99. **"TASI lectures on perturbative string theories"**
H. Ooguri and Z. Yin.
hep-th/9612254
LBL-39774, LBNL-39774, UCB-PTH-96-64

100. **"Mirror symmetry in three-dimensional theories, SL(2,Z) and D-brane moduli spaces"**
J. de Boer, K. Hori, H. Ooguri, Y. Oz and Z. Yin.
hep-th/9612131
DOI:10.1016/S0550-3213(97)00115-6
Nucl. Phys. B **493**, 148 (1997)
LBL-39707, LBNL-39707, UCB-PTH-96-58

101. **"Mirror symmetry in three-dimensional gauge theories, quivers and D-branes"**
J. de Boer, K. Hori, H. Ooguri and Y. Oz.
hep-th/9611063
DOI:10.1016/S0550-3213(97)00125-9
Nucl. Phys. B **493**, 101 (1997)
LBL-39543, LBNL-39543, UCB-PTH-96-47

102. **"Supersymmetric cycles in exceptional holonomy manifolds and Calabi-Yau 4 folds"**
K. Becker, M. Becker, D. R. Morrison, H. Ooguri, Y. Oz and Z. Yin.
hep-th/9608116
DOI:10.1016/S0550-3213(96)00491-9
Nucl. Phys. B **480**, 225 (1996)
DUKE-TH-96-124, LBL-39156, LBNL-39156, UCB-PTH-96-33, NSF-ITP-96-65, WIS-96-34-PH

103. **"Summing up D instantons"**
H. Ooguri and C. Vafa.
hep-th/9608079
DOI:10.1103/PhysRevLett.77.3296
Phys. Rev. Lett. **77**, 3296 (1996)
HUTP-96-A036, UCB-PTH-96-36, LBL-39220, LBNL-39220

104. **"D-branes on Calabi-Yau spaces and their mirrors"**
H. Ooguri, Y. Oz and Z. Yin.
hep-th/9606112
DOI:10.1016/0550-3213(96)00379-3
Nucl. Phys. B **477**, 407 (1996)
LBL-38974, UCB-PTH-96-26, WIS-96-24-PH

105. **"Loop amplitudes of N=2 string"**
H. Ooguri.
In *Los Angeles 1995, Future perspectives in string theory* 400-413

106. **"String solitons and singularities of K(3)"**
H. Ooguri.
In *Toyonaka 1995, Frontiers in quantum field theory* 69-73
LBL-38591, C95-12-14

107. **"Two-dimensional black hole and singularities of CY manifolds"**
H. Ooguri and C. Vafa.
hep-th/9511164
DOI:10.1016/0550-3213(96)00008-9
Nucl. Phys. B **463**, 55 (1996)
HUTP-95-A045, LBL-37996, UCB-PTH-95-41

108. **"N=2 string amplitudes"**
H. Ooguri.
DOI:10.1016/0920-5632(96)00019-9
Nucl. Phys. Proc. Suppl. **46**, 173 (1996).
LBL-37660, UCB-PTH-95-30, C95-06-05.1

109. **"Quantization of mirror symmetry"**
H. Ooguri.

110. **"All loop N=2 string amplitudes"**
H. Ooguri and C. Vafa.
hep-th/9505183
DOI:10.1016/0550-3213(95)00365-Y
Nucl. Phys. B **451**, 121 (1995)
HUTP-95-A017, LBL-37271, UCB-PTH-95-16

111. **"Note on holomorphic anomalies in topological field theories"**
H. Ooguri.
In *Toyonaka 1994, Group theoretical methods in physics* 41-53

112. **"Note on holomorphic anomalies in topological field theories"**
H. Ooguri.
In *Istanbul 1994, Strings and symmetries* 15-25

113. **"Quantization of the mirror symmetry"**
H. Ooguri.
In *Berkeley 1993, Proceedings, Strings '93* 316-327

114. **"Kodaira-Spencer theory of gravity and exact results for quantum string amplitudes"**
M. Bershadsky, S. Cecotti, H. Ooguri and C. Vafa.
hep-th/9309140
DOI:10.1007/BF02099774
Commun. Math. Phys. **165**, 311 (1994)
HUTP-93-A025, RIMS-946, SISSA-142-93-EP

115. **"Holomorphic anomalies in topological field theories"**
M. Bershadsky, S. Cecotti, H. Ooguri and C. Vafa.
hep-th/9302103
DOI:10.1016/0550-3213(93)90548-4
Nucl. Phys. B **405**, 279 (1993)
HUTP-93-A008, RIMS-915

116. **"Schwinger-Dyson equation in three-dimensional simplicial quantum gravity"**
H. Ooguri.
hep-th/9210028
DOI:10.1143/PTP.89.1
Prog. Theor. Phys. **89**, 1 (1993)
HUTP-92-A051

117. **"Partition functions and topology changing amplitudes in the 3-D lattice gravity of Ponzano and Regge"**
H. Ooguri.
hep-th/9112072
DOI:10.1016/0550-3213(92)90188-H
Nucl. Phys. B **382**, 276 (1992)
RIMS-851

118. **"The Annihilating ideals of minimal models"**
B. L. Feigin, T. Nakanishi and H. Ooguri.
DOI:10.1142/S0217751X92003793
Int. J. Mod. Phys. A **7S1A**, 217 (1992), [Int. J. Mod. Phys. A **7**, 217 (1992)].
RIMS-837

119. **"Discrete and continuum approaches to three-dimensional quantum gravity"**
H. Ooguri and N. Sasakura.
hep-th/9108006
DOI:10.1142/S0217732391004140
Mod. Phys. Lett. A **6**, 3591 (1991)
KUNS-1088, RIMS-778

120. **"N=2 heterotic strings"**
H. Ooguri and C. Vafa.
DOI:10.1016/0550-3213(91)90042-V
Nucl. Phys. B **367**, 83 (1991).
RIMS-766, HUTP-91-A004

121. **"The Induced action of W(3) gravity"**
H. Ooguri, K. Schoutens, A. Sevrin and P. van Nieuwenhuizen.
DOI:10.1007/BF02099396
Commun. Math. Phys. **145**, 515 (1992).
RIMS-764, ITP-SB-91-16

122. **"Modular invariant partition functions for the doubly extended N=4 superconformal algebras"**
H. Ooguri, J. L. Petersen and A. Taormina.
DOI:10.1016/0550-3213(92)90216-X
Nucl. Phys. B **368**, 611 (1992).
EFI-91-15, NBI-HE-91-15, RIMS-755

123. **"Geometry of N=2 strings"**
H. Ooguri and C. Vafa.
DOI:10.1016/0550-3213(91)90270-8
Nucl. Phys. B **361**, 469 (1991).
HUTP-91-A003, EFI-91-05

124. **"Geometry of the N=2 string theory"**
H. Ooguri.
In *New York 1990, Proceedings, Quarks, symmetries and strings* 193-206. (see HIGH ENERGY PHYSICS INDEX 29 (1991) No. 12259)

125. **"Selfduality and $N = 2$ String MAGIC"**
H. Ooguri and C. Vafa.
DOI:10.1142/S021773239000158X
Mod. Phys. Lett. A **5**, 1389 (1990).
EFI-90-24, HUTP-90-A024

126. **"Superconformal Symmetry and Geometry of Ricci Flat Kahler Manifolds"**
H. Ooguri.
DOI:10.1142/S0217751X89001801
Int. J. Mod. Phys. A **4**, 4303 (1989).

127. **"Borel Summation of String Theory for Planck Scale Scattering"**
P. F. Mende and H. Ooguri.
DOI:10.1016/0550-3213(90)90202-O
Nucl. Phys. B **339**, 641 (1990).
MIT-CTP-1800, EFI-89-62

128. **"Hidden Osp(N,2) Symmetries in Superconformal Field Theories"**
M. Bershadsky and H. Ooguri.
DOI:10.1016/0370-2693(89)90421-8
Phys. Lett. B **229**, 374 (1989).
IASSNS-HEP-89/35

129. **"Hidden SL(n) Symmetry in Conformal Field Theories"**
M. Bershadsky and H. Ooguri.
DOI:10.1007/BF02124331
Commun. Math. Phys. **126**, 49 (1989).
IASSNS-HEP-89-09

130. **"Application Of Superconformal Symmetry To String Compactification"**
T. Eguchi, H. Ooguri, A. Taormina and S. K. Yan.
IN *TSUKUBA 1988, PROCEEDINGS, SUPERSTRINGS* 32-54.

131. **"Superconformal Algebras and String Compactification on Manifolds with SU(N) Holonomy"**
T. Eguchi, H. Ooguri, A. Taormina and S. K. Yang.
DOI:10.1016/0550-3213(89)90454-9
Nucl. Phys. B **315**, 193 (1989).
UT-536-TOKYO

132. **"Differential Equations for Characters of Virasoro and Affine Lie Algebras"**
T. Eguchi and H. Ooguri.
DOI:10.1016/0550-3213(89)90330-1
Nucl. Phys. B **313**, 492 (1989).
UT-531-TOKYO

133. **"Differential equations in moduli space"**
T. Eguchi and H. Ooguri.

134. **"Conformal Field Theory On A Riemann Surface"**
H. Ooguri.
IN *KANPUR 1987, PROCEEDINGS, PARTICLE PHYSICS - SUPERSTRING THEORY* 184-198.
(SEE CONFERENCE INDEX)

135. **"Effective Action Including String Loop Effects: String Loop Corrections From Fusion Of Handles And Vertex Operators"**
H. Ooguri and N. Sakai.
IN *TSUKUBA 1987, PROCEEDINGS, SUPERSTRINGS* 1-3.

136. **"String Multiloop Corrections to Equations of Motion"**
H. Ooguri and N. Sakai.
DOI:10.1016/0550-3213(89)90303-9
Nucl. Phys. B **312**, 435 (1989).
TIT-HEP-123, UT-519-TOKYO

137. **"Differential Equations for Conformal Characters in Moduli Space"**
T. Eguchi and H. Ooguri.
DOI:10.1016/0370-2693(88)91567-5
Phys. Lett. B **203**, 44 (1988).
UT-518-TOKYO

138. **"String Loop Corrections From Fusion of Handles and Vertex Operators"**
H. Ooguri and N. Sakai.
DOI:10.1016/0370-2693(87)90351-0
Phys. Lett. B **197**, 109 (1987).
TIT/HEP-117, UT-512-TOKYO

139. **"Chiral Bosonization on Riemann Surface"**
T. Eguchi and H. Ooguri.
DOI:10.1016/0370-2693(87)90084-0
Phys. Lett. B **187**, 127 (1987).
LPTENS-86-39

140. **"Soliton Equations and Free Fermions on Riemann Surfaces"**
N. Ishibashi, Y. Matsuo and H. Ooguri.
DOI:10.1142/S0217732387000161
Mod. Phys. Lett. A **2**, 119 (1987).
UT-499-TOKYO

141. **"Conformal and Current Algebras on General Riemann Surface"**
T. Eguchi and H. Ooguri.
DOI:10.1016/0550-3213(87)90686-9
Nucl. Phys. B **282**, 308 (1987).
UT-491-TOKYO

142. **"String Field Theory With Space-time Supersymmetry"**
H. Ooguri.
DOI:10.1016/0370-2693(86)90836-1
Phys. Lett. B **172**, 204 (1986).
KUNS-825

143. **"Gauge Field Theory Of Free Superstrings"**
H. Ooguri.
KUNS-819

144. **"Spectrum of Hawking Radiation and Huygens' Principle"**
H. Ooguri.
DOI:10.1103/PhysRevD.33.3573
Phys. Rev. D **33**, 3573 (1986).
KUNS-807

145. **"Gauge Invariant Local Action of String Field From BRS Formalism"**
K. Itoh, T. Kugo, H. Kunitomo and H. Ooguri.
DOI:10.1143/PTP.75.162
Prog. Theor. Phys. **75**, 162 (1986).
KUNS-800

146. **"Nambu-goldstone Bosons In Curved Space-time"**
T. Inami and H. Ooguri.
DOI:10.1016/0370-2693(85)90201-1
Phys. Lett. B **163**, 101 (1985).
RIFP-612

147. **"Dynamical Breakdown Of Supersymmetry In Two-dimensional Anti-de Sitter Space"**
T. Inami and H. Ooguri.
DOI:10.1016/0550-3213(86)90255-5
Nucl. Phys. B **273**, 487 (1986).
RIFP-596-REV, RIFP-596

148. **"One Loop Effective Potential in Anti-de Sitter Space"**
T. Inami and H. Ooguri.
DOI:10.1143/PTP.73.1051
Prog. Theor. Phys. **73**, 1051 (1985).
RIFP-585

149. **"Topological lattice models in four-dimensions"**
H. Ooguri.
hep-th/9205090
DOI:10.1142/S0217732392004171
Mod. Phys. Lett. A **7**, 2799 (1992)
RIMS-878