

# Hiroshi Ooguri

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

## Address:

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 email: ooguri at caltech.edu, website: <http://ooguri.caltech.edu/>

## Education:

1984	Kyoto University	Bachelor of Science
1986	Kyoto University	Master of Science
1989	University of Tokyo	Doctor of Science

## 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	California Institute of Technology	Professor
2007 – present	California Institute of Technology	Fred Kavli Professor
2010 – 2015	California Institute of Technology, Division of Physics, Mathematics, and Astronomy	Deputy Chair
2015 – present	California 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	Fellow

## 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

## Services to Caltech:

2001–2015, 2016–present	Physics Faculty Search Committee	Member
2003–2006	Physics Faculty Search Committee	Co-Chair
2004–present	Mathematics Faculty Search Committee	Member
2010–2012	PMA Long Term Strategic Planning Committee	Chair
2011–2014	Faculty Board	Member
2012–2014	Faculty Board, Steering Committee	Member
2012–2015	Undergraduate Admissions Committee	Member
2003–present	Physics Colloquium Committee	Member
2012–2015	Physics Colloquium Committee	Chair
2015–2016	Physics Graduate Committee	Member

## Plenary Talks and Invited Lectures in 2016 - 2017:

Distinguished Lecture, ICTS, Bangalore, India (January, 2018, *scheduled*)  
 String-Pheno 2017, Virginia Tech (July 3 - 7, 2017, *scheduled*)  
 Strings 2017, Tel Aviv, Israel (June 26 - 30, 2017, *scheduled*)  
 PASCOS 2017, Madrid, Spain (June 19 - 23, 2017, *scheduled*)  
 Simons Symposium, Elmau, Germany (May 1 - 5, 2017)  
 Quantum Gravity, String Theory and Holography, Kyoto, Japan (April 3 - 7, 2017)  
 4 Lectures at String School, ICTP, Trieste, Italy (March 21 - 24, 2017)  
 Main Lecture, Japanese Physical Society Annual Meeting (March 19, 2017)  
 String Theory: Past and Present, ICTP, Bangalore, India (January 11 - 13, 2017)  
 Entanglement in Field Theory and Gravity, Simons Center, Stony Brook (December 5 - 7, 2016)  
 Distinguished Lecture, NCTS, Taiwan (November 23, 2016)  
 75th Birthday Symposium for John Schwarz, Caltech (November 18 - 19, 2016)  
 Suntry Foundation Symposium, Tokyo, Japan (October 1, 2016)  
 Strings 2016, Beijing, China (August 1 - 5, 2016)  
 It from Qubit Summer School, Perimeter Institute, Canada (July 18 - 29, 2016)  
 Amsterdam String Workshop, Netherland (July 4 - 7, 2016)  
 It from Qubit Meeting, Kyoto, Japan (June 20 - 24, 2016)  
 Colloquium, CMSA, Harvard University, (May 4, 2016)  
 Nambu Memorial Symposium, University of Chicago (March 14, 2016)  
 75th Birthday Symposium for David Gross, Jerusalem, Israel (February 28 - March 3, 2016)  
 F-Theory at 20, Caltech (February 22 - 26, 2016)  
 String-Math 2015, Hainan Island, China (December 31, 2015 - January 4, 2016)

## Public Lectures in 2016 - 2017:

Nehru Planetarium, Bangalore, India (January, 2018, *scheduled*)  
 Aspen Center for Physics, Colorado (June 8, 2017, *scheduled*)  
 KEK, Japan (April 11, 2017)  
 Kyoto University, Japan (April 8, 2017)  
 University of Tokyo, Japan (January 22, 2017)  
 Collège de France, Paris, France (July 2, 2016).  
 Phillips Exeter Academy, New Hampshire (May 20, 2016)  
 Miraikan, Science Museum in Tokyo, Japan (January 17, March 26, and April 19, 2016)

Chunichi Cultural Center, Nagoya, Japan (January 18, 2016)

#### Education & Outreach:

- Voted as one of best instructors by graduating seniors at the University of California at Berkeley (1999).
- List of former students and postdoctoral fellows is available at <http://ooguri.caltech.edu/students/>.
- Six popular science books in Japanese, sold over 300,000 copies in Japan and all translated into Chinese and Korean. One of them received the 2014 Kodansha Prize for Science Books.
- Monthly popular science article on the Universe in *Weekly Diamond*, a business magazine of the highest circulation in Japan (January, 2015 - present).
- Weekly column in *Chunichi Shimbun*, a major newspaper in Japan (January, 2017 - present)
- Scientific advisor for *The Man from 9 Dimensions*, a 3D dome theater movie. It received the 2016 Best Educational Production Award from the International Planetarium Society.

#### 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)  
 International Congress of Mathematical Physics (2013- 2015)  
 Institute for Theoretical Physics, Chinese Academy of Sciences (2013)  
 Kyoto Prize Selection Committee (2014)  
 Nishina Prize Selection Committee (2016 - present)  
 Theory Group, CERN (2016)  
 Soros Fellowships for New American Selection Committee (2017)  
 DOE and NSF Review Panels (multiple years)

#### 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)

#### Conference Organizations in 2016 - 2017

Strings 2018, Okinawa, Japan (June 25 - 29, 2018, *scheduled*)  
 String-Math 2018, Sendai, Japan (June 18 - 22, 2018, *scheduled*)  
 Simons Symposium on Quantum Entanglement, Elmau, Germany (May 1 - 5, 2017)  
 75th Birthday Symposium for John Schwarz, Caltech (November 18 - 19, 2016)  
 General Relativity at One Hundred, Caltech (March 10 - 12, 2016)  
 F-Theory at 20, Caltech (February 22 - 26, 2016)  
 Statistics, Quantum Information, and Gravity, Tokyo, Japan (September 27, 2016)  
 Asian Winter School in String Theory, Okinawa, Japan (January 6 - 16, 2016)

# Publication

1. **“On Distinguishability of Black Hole Microstates”**  
N. Bao and H. Ooguri.  
arXiv:1705.07943 [hep-th]
2. **“New Kaluza-Klein Instantons and Decay of AdS Vacua”**  
H. Ooguri and L. Spodyneiko.  
arXiv:1703.03105 [hep-th]
3. **“Shortening Anomalies in Supersymmetric Theories”**  
J. Gomis, Z. Komargodski, H. Ooguri, N. Seiberg and Y. Wang.  
arXiv:1611.03101 [hep-th]  
JHEP **1701**, 067 (2017)
4. **“Non-supersymmetric AdS and the Swampland”**  
H. Ooguri and C. Vafa.  
arXiv:1610.01533 [hep-th]
5. **“Gravitational Positive Energy Theorems from Information Inequalities”**  
N. Lashkari, J. Lin, H. Ooguri, B. Stoica and M. Van Raamsdonk.  
arXiv:1605.01075 [hep-th]  
PTEP **2016**, no. 12, 12C109 (2016)
6. **“Bulk Local States and Crosscaps in Holographic CFT”**  
Y. Nakayama and H. Ooguri.  
arXiv:1605.00334 [hep-th]  
JHEP **1610**, 085 (2016)
7. **“Reflections on Conformal Spectra”**  
H. Kim, P. Kravchuk and H. Ooguri.  
arXiv:1510.08772 [hep-th]  
JHEP **1604**, 184 (2016)
8. **“Bulk Locality and Boundary Creating Operators”**  
Y. Nakayama and H. Ooguri.  
arXiv:1507.04130 [hep-th]  
JHEP **1510**, 114 (2015)
9. **“The Holographic Entropy Cone”**  
N. Bao, S. Nezami, H. Ooguri, B. Stoica, J. Sully and M. Walter.  
arXiv:1505.07839 [hep-th]  
JHEP **1509**, 130 (2015)
10. **“Locality of Gravitational Systems from Entanglement of Conformal Field Theories”**  
J. Lin, M. Marcolli, H. Ooguri and B. Stoica.  
arXiv:1412.1879 [hep-th]  
Phys. Rev. Lett. **114**, 221601 (2015)
11. **“Hall Viscosity and Angular Momentum in Gapless Holographic Models”**  
H. Liu, H. Ooguri and B. Stoica.  
arXiv:1403.6047 [hep-th]  
Phys. Rev. D **90**, no. 8, 086007 (2014)

12. **“Angular Momentum Generation by Parity Violation”**  
H. Liu, H. Ooguri and B. Stoica.  
arXiv:1311.5879 [hep-th]  
Phys. Rev. D **89**, no. 10, 106007 (2014)
13. **“Out of Equilibrium Temperature from Holography”**  
S. Nakamura and H. Ooguri.  
arXiv:1309.4089 [hep-th]  
Phys. Rev. D **88**, no. 12, 126003 (2013)
14. **“Spontaneous Generation of Angular Momentum in Holographic Theories”**  
H. Liu, H. Ooguri, B. Stoica and N. Yunes.  
arXiv:1212.3666 [hep-th]  
Phys. Rev. Lett. **110**, no. 21, 211601 (2013)
15. **“Modular Constraints on Calabi-Yau Compactifications”**  
C. A. Keller and H. Ooguri.  
arXiv:1209.4649 [hep-th]  
Commun. Math. Phys. **324**, 107 (2013)
16. **“Lectures on topological string theory”**  
H. Ooguri.  
Lect. Notes Phys. **851**, 233 (2012).
17. **“Instability in magnetic materials with dynamical axion field”**  
H. Ooguri and M. Oshikawa.  
arXiv:1112.1414 [cond-mat.mes-hall]  
Phys. Rev. Lett. **108**, 161803 (2012)
18. **“Comments on Worldsheet Description of the Omega Background”**  
Y. Nakayama and H. Ooguri.  
arXiv:1106.5503 [hep-th]  
Nucl. Phys. B **856**, 342 (2012)
19. **“Spatially Modulated Phase in Holographic Quark-Gluon Plasma”**  
H. Ooguri and C. S. Park.  
arXiv:1011.4144 [hep-th]  
Phys. Rev. Lett. **106**, 061601 (2011)
20. **“Holographic End-Point of Spatially Modulated Phase Transition”**  
H. Ooguri and C. S. Park.  
arXiv:1007.3737 [hep-th]  
Phys. Rev. D **82**, 126001 (2010)
21. **“Wall Crossing As Seen By Matrix Models”**  
H. Ooguri, P. Sulkowski and M. Yamazaki.  
arXiv:1005.1293 [hep-th]  
Commun. Math. Phys. **307**, 429 (2011)
22. **“Notes on the K3 Surface and the Mathieu group  $M_{24}$ ”**  
T. Eguchi, H. Ooguri and Y. Tachikawa.  
arXiv:1004.0956 [hep-th]  
Exper. Math. **20**, 91 (2011)
23. **“Supersymmetry Breaking and Gauge Mediation”**  
R. Kitano, H. Ooguri and Y. Ookouchi.  
arXiv:1001.4535 [hep-th]  
Ann. Rev. Nucl. Part. Sci. **60**, 491 (2010)
24. **“Gravity Dual of Spatially Modulated Phase”**  
S. Nakamura, H. Ooguri and C. S. Park.

- arXiv:0911.0679 [hep-th]  
Phys. Rev. D **81**, 044018 (2010)
25. **“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)
  26. **“Supersymmetric non-relativistic geometries in M-theory”**  
H. Ooguri and C. S. Park.  
arXiv:0905.1954 [hep-th]  
Nucl. Phys. B **824**, 136 (2010)
  27. **“Emergent Calabi-Yau Geometry”**  
H. Ooguri and M. Yamazaki.  
arXiv:0902.3996 [hep-th]  
Phys. Rev. Lett. **102**, 161601 (2009)
  28. **“Geometry As Seen By String Theory”**  
H. Ooguri.  
arXiv:0901.1881 [math.AG]
  29. **“Crystal Melting and Toric Calabi-Yau Manifolds”**  
H. Ooguri and M. Yamazaki.  
arXiv:0811.2801 [hep-th]  
Commun. Math. Phys. **292**, 179 (2009)
  30. **“The Entropic Principle and the Landscape in SUSY Gauge Theories”**  
H. Ooguri.  
Subnucl. Ser. **45**, 117 (2009).
  31. **“Superconformal Chern-Simons Theories and the Squashed Seven Sphere”**  
H. Ooguri and C. S. Park.  
arXiv:0808.0500 [hep-th]  
JHEP **0811**, 082 (2008)
  32. **“Current Correlators for General Gauge Mediation”**  
H. Ooguri, Y. Ookouchi, C. S. Park and J. Song.  
arXiv:0806.4733 [hep-th]  
Nucl. Phys. B **808**, 121 (2009)
  33. **“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]  
Commun. Num. Theor. Phys. **2**, 743 (2008)
  34. **“New Anomalies in Topological String Theory”**  
P. L. H. Cook, H. Ooguri and J. Yang.  
arXiv:0804.1120 [hep-th]  
Prog. Theor. Phys. Suppl. **177**, 120 (2009)
  35. **“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]  
Nucl. Phys. B **798**, 17 (2008)
  36. **“Comments on the Holomorphic Anomaly in Open Topological String Theory”**  
P. L. H. Cook, H. Ooguri and J. Yang.  
arXiv:0706.0511 [hep-th]  
Phys. Lett. B **653**, 335 (2007)

37. **“Metastable Vacua in Perturbed Seiberg-Witten Theories”**  
H. Ooguri, Y. Ookouchi and C. S. Park.  
arXiv:0704.3613 [hep-th]  
Adv. Theor. Math. Phys. **12**, no. 2, 405 (2008)
38. **“Gauge Mediation in String Theory”**  
T. Kawano, H. Ooguri and Y. Ookouchi.  
arXiv:0704.1085 [hep-th]  
Phys. Lett. B **652**, 40 (2007)
39. **“Nondecoupling of Maximal Supergravity from the Superstring”**  
M. B. Green, H. Ooguri and J. H. Schwarz.  
arXiv:0704.0777 [hep-th]  
Phys. Rev. Lett. **99**, 041601 (2007)
40. **“Baby universes and string theory”**  
R. Dijkgraaf, R. Gopakumar, H. Ooguri and C. Vafa.  
Int. J. Mod. Phys. D **15**, 1581 (2006).
41. **“Direct Mediation of Meta-Stable Supersymmetry Breaking”**  
R. Kitano, H. Ooguri and Y. Ookouchi.  
hep-ph/0612139  
Phys. Rev. D **75**, 045022 (2007)
42. **“Quantum Entanglement of Baby Universes”**  
M. Aganagic, H. Ooguri and T. Okuda.  
hep-th/0612067  
Nucl. Phys. B **778**, 36 (2007)
43. **“Entropy of small black holes”**  
H. Ooguri.  
Prog. Theor. Phys. Suppl. **163**, 355 (2006).
44. **“Meta-Stable Supersymmetry Breaking Vacua on Intersecting Branes”**  
H. Ooguri and Y. Ookouchi.  
hep-th/0607183  
Phys. Lett. B **641**, 323 (2006)
45. **“Landscape of supersymmetry breaking vacua in geometrically realized gauge theories”**  
H. Ooguri and Y. Ookouchi.  
hep-th/0606061  
Nucl. Phys. B **755**, 239 (2006)
46. **“On the Geometry of the String Landscape and the Swampland”**  
H. Ooguri and C. Vafa.  
hep-th/0605264  
Nucl. Phys. B **766**, 21 (2007)
47. **“Baby universes in string theory”**  
R. Dijkgraaf, R. Gopakumar, H. Ooguri and C. Vafa.  
hep-th/0504221  
Phys. Rev. D **73**, 066002 (2006)
48. **“Hartle-Hawking wave-function for flux compactifications”**  
H. Ooguri, C. Vafa and E. P. Verlinde.  
hep-th/0502211  
Lett. Math. Phys. **74**, 311 (2005)
49. **“Black holes, q-deformed 2d Yang-Mills, and non-perturbative topological strings”**  
M. Aganagic, H. Ooguri, N. Saulina and C. Vafa.  
hep-th/0411280  
Nucl. Phys. B **715**, 304 (2005)

50. **“Black hole attractors and the topological string”**  
H. Ooguri, A. Strominger and C. Vafa.  
hep-th/0405146  
Phys. Rev. D **70**, 106007 (2004)
51. **“D-branes and phases on string world sheet”**  
T. Okuda and H. Ooguri.  
hep-th/0404101  
Nucl. Phys. B **699**, 135 (2004)
52. **“S duality and topological strings”**  
N. Nekrasov, H. Ooguri and C. Vafa.  
hep-th/0403167  
JHEP **0410**, 009 (2004)
53. **“On the world sheet derivation of large N dualities for the superstring”**  
N. Berkovits, H. Ooguri and C. Vafa.  
hep-th/0310118  
Commun. Math. Phys. **252**, 259 (2004)
54. **“Planar gravitational corrections for supersymmetric gauge theories”**  
R. Dijkgraaf, M. T. Grisaru, H. Ooguri, C. Vafa and D. Zanon.  
hep-th/0310061  
JHEP **0404**, 028 (2004)
55. **“Gravity induced C deformation”**  
H. Ooguri and C. Vafa.  
hep-th/0303063  
Adv. Theor. Math. Phys. **7**, no. 3, 405 (2003)
56. **“The C deformation of Gluino and nonplanar diagrams”**  
H. Ooguri and C. Vafa.  
hep-th/0302109  
Adv. Theor. Math. Phys. **7**, no. 1, 53 (2003)
57. **“Quantum aspects of Seiberg-Witten map in noncommutative Chern-Simons theory”**  
K. Kaminsky, Y. Okawa and H. Ooguri.  
hep-th/0301133  
Nucl. Phys. B **663**, 33 (2003)
58. **“Inside the horizon with AdS / CFT”**  
P. Kraus, H. Ooguri and S. Shenker.  
hep-th/0212277  
Phys. Rev. D **67**, 124022 (2003)
59. **“World sheet derivation of a large N duality”**  
H. Ooguri and C. Vafa.  
hep-th/0205297  
Nucl. Phys. B **641**, 3 (2002)
60. **“Penrose limit of N = 1 gauge theories”**  
J. Gomis and H. Ooguri.  
hep-th/0202157  
Nucl. Phys. B **635**, 106 (2002)
61. **“Boundary states for AdS(2) branes in AdS(3)”**  
P. Lee, H. Ooguri and J. w. Park.  
hep-th/0112188  
Nucl. Phys. B **632**, 283 (2002)



62. **“Permeable conformal walls and holography”**  
C. Bachas, J. de Boer, R. Dijkgraaf and H. Ooguri.  
hep-th/0111210  
JHEP **0206**, 027 (2002)
63. **“Strings in AdS(3) and the SL(2,R) WZW model. Part 3. Correlation functions”**  
J. M. Maldacena and H. Ooguri.  
hep-th/0111180  
Phys. Rev. D **65**, 106006 (2002)
64. **“Holography and defect conformal field theories”**  
O. DeWolfe, D. Z. Freedman and H. Ooguri.  
hep-th/0111135  
Phys. Rev. D **66**, 025009 (2002)
65. **“Open strings on AdS(2) branes”**  
P. Lee, H. Ooguri, J. W. Park and J. Tannenhauser.  
hep-th/0106129  
Nucl. Phys. B **610**, 3 (2001)
66. **“Seiberg-Witten transforms of noncommutative solitons”**  
K. Hashimoto and H. Ooguri.  
hep-th/0105311  
Phys. Rev. D **64**, 106005 (2001)
67. **“Strings in AdS(3) and SL(2,R) WZW model”**  
H. Ooguri.  
Int. J. Mod. Phys. A **16**, 677 (2001).
68. **“An Exact solution to Seiberg-Witten equation of noncommutative gauge theory”**  
Y. Okawa and H. Ooguri.  
hep-th/0104036  
Phys. Rev. D **64**, 046009 (2001)
69. **“Energy momentum tensors in matrix theory and in noncommutative gauge theories”**  
Y. Okawa and H. Ooguri.  
hep-th/0103124
70. **“How noncommutative gauge theories couple to gravity”**  
Y. Okawa and H. Ooguri.  
hep-th/0012218  
Nucl. Phys. B **599**, 55 (2001)
71. **“Nonrelativistic closed string theory”**  
J. Gomis and H. Ooguri.  
hep-th/0009181  
J. Math. Phys. **42**, 3127 (2001)
72. **“Holography in superspace”**  
H. Ooguri, J. Rahmfeld, H. Robins and J. Tannenhauser.  
hep-th/0007104  
JHEP **0007**, 045 (2000)
73. **“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  
J. Math. Phys. **42**, 2961 (2001)
74. **“Strings in AdS(3) and SL(2,R) WZW model 1.: The Spectrum”**  
J. M. Maldacena and H. Ooguri.  
hep-th/0001053  
J. Math. Phys. **42**, 2929 (2001)

75. **“Wilson loops and minimum surfaces”**  
H. Ooguri.  
Prog. Theor. Phys. Suppl. **134**, 153 (1999).
76. **“Knot invariants and topological strings”**  
H. Ooguri and C. Vafa.  
hep-th/9912123  
Nucl. Phys. B **577**, 419 (2000)
77. **“Gauge theory and string theory: An Introduction to the AdS / CFT correspondence”**  
H. Ooguri.  
hep-lat/9911027  
Nucl. Phys. Proc. Suppl. **83**, 77 (2000)
78. **“Wilson loops in large N theories”**  
H. Ooguri.  
hep-th/9909040  
Class. Quant. Grav. **17**, 1225 (2000)
79. **“Large N field theories, string theory and gravity”**  
O. Aharony, S. S. Gubser, J. M. Maldacena, H. Ooguri and Y. Oz.  
hep-th/9905111  
Phys. Rept. **323**, 183 (2000)
80. **“Wilson loops and minimal surfaces”**  
N. Drukker, D. J. Gross and H. Ooguri.  
hep-th/9904191  
Phys. Rev. D **60**, 125006 (1999)
81. **“Gauge theories on branes”**  
H. Ooguri.  
Nucl. Phys. Proc. Suppl. **67**, 172 (1998).
82. **“Gauge theory and gravity: A new synthesis”**  
H. Ooguri.  
In \*Goeteborg 1998, Novelties in string theory\* 1-6
83. **“String theory on AdS(3)”**  
J. de Boer, H. Ooguri, H. Robins and J. Tannenhauser.  
hep-th/9812046  
JHEP **9812**, 026 (1998)
84. **“On the field theory limit of D instantons”**  
H. Ooguri and K. Skenderis.  
hep-th/9810128  
JHEP **9811**, 013 (1998)
85. **“Glueballs and their Kaluza-Klein cousins”**  
H. Ooguri, H. Robins and J. Tannenhauser.  
hep-th/9806171  
Phys. Lett. B **437**, 77 (1998)
86. **“Glueball mass spectrum from supergravity”**  
C. Csaki, H. Ooguri, Y. Oz and J. Terning.  
hep-th/9806021  
JHEP **9901**, 017 (1999)
87. **“Aspects of large N gauge theory dynamics as seen by string theory”**  
D. J. Gross and H. Ooguri.  
hep-th/9805129  
Phys. Rev. D **58**, 106002 (1998)

88. **“Spectrum of large N gauge theory from supergravity”**  
G. T. Horowitz and H. Ooguri.  
hep-th/9802116  
Phys. Rev. Lett. **80**, 4116 (1998)
89. **“Membrane scattering in curved space with M momentum transfer”**  
J. de Boer, K. Hori and H. Ooguri.  
hep-th/9802005  
Nucl. Phys. B **525**, 257 (1998)
90. **“Branes and dynamical supersymmetry breaking”**  
J. de Boer, K. Hori, H. Ooguri and Y. Oz.  
hep-th/9801060  
Nucl. Phys. B **522**, 20 (1998)
91. **“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
92. **“Kahler potential and higher derivative terms from M theory five-brane”**  
J. de Boer, K. Hori, H. Ooguri and Y. Oz.  
hep-th/9711143  
Nucl. Phys. B **518**, 173 (1998)
93. **“Why matrix theory is hard”**  
M. R. Douglas and H. Ooguri.  
hep-th/9710178  
Phys. Lett. B **425**, 71 (1998)
94. **“M theory five-brane and SQCD”**  
H. Ooguri.  
hep-th/9709211  
Nucl. Phys. Proc. Suppl. **68**, 84 (1998)
95. **“D-brane actions on Kahler manifolds”**  
M. R. Douglas, A. Kato and H. Ooguri.  
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