

# CURRICULUM VITAE

**ANTAL JEVICKI**

Professor, Department of Physics

Brown University

Dated: February, 2012

## **1. Home Address**

12 Lorimer Avenue, Providence, RI 02906

## **2. Education**

B.S., Belgrade University, July 1972

Ph.D., City University of New York, July 1976

“Extended Particles in Quantum Field Theory”

Thesis under Prof. Bunji Sakita.

## **3. Professional Appointments**

Alfred P. Sloan Foundation Fellow, 1980-1984

Member, Institute for Advanced Study, Princeton, New Jersey, 1976-1979

Assistant Professor, Brown University, 1979-1981

Associate Professor (with tenure), Brown University, 1981-1988

Professor, Brown University, 1988-present

Visiting Member, Institute for Theoretical Physics, Santa Barbara, September 1981-February 1982

Visiting Associate Professor, Ecole Normale Supérieure, Paris, France, 1983-1984

Associate Scientist, CERN, Geneva 1985

Member, The Institute for Advanced Study, Princeton, New Jersey, Jan.-June, 1986

Visiting Professor, University of Tokyo, February-March 1989

Visiting Professor, Yukawa Institute (Kyoto), May-July 1992

Professor Visit'è, Ecole Normale Supérieure, Paris, France, 1993

Visiting Professor, Japanese Society for the Promotion of Science, 1996

Visitor, String Theory, Harvard University, 2000

## **4. Research**

Professor Jevicki's research work at Brown can be divided into three major parts:

- Immediately upon joining the department in the fall of 1979, Professor Jevicki has formulated (in collaboration with B. Sakita, City University of New York) an approach to “Large N Theories”. These were originally introduced by Gerard 't Hooft in 1973 as the most promising theoretical constructs for understanding

the dynamics of strong interactions through a fundamental theory of Quantum Chromodynamics. The methods introduced by Jevicki and Sakita were not only of basic usefulness in particle physics, but also in other branches of physics, in particular condensed matter and many body physics. The developments of the theory were reviewed by Professor Jevicki at several major conferences and international meetings.

- During the years 1982-1984, Professor Jevicki has concentrated his efforts on development of numerical, computer augmented methods for solving “Large N QCD”. These methods were formulated in several papers written in collaboration with H. Levine (Harvard) and Professor Jevicki’s students, O. Karim and J.P. Rodrigues. These lattice theories were extended to strings and quantum gravity in papers written in collaboration with M. Ninomiya (now at the University of Tokyo).

\* Since 1985, Professor Jevicki has been working on string theories. These theories represent the most hopeful candidates for unification of all known forces. They are also unique candidates for a theory of quantum gravity. They are a subject of massive interest. Professor Jevicki has made a series of contributions to string theory. First, in collaboration with one of his students (B. Fridling) he has formulated an S-matrix approach to the effective string equations. This work was the basis for the Ph.D. thesis written by B. Fridling. Professor Jevicki, in collaboration with D. Gross, gave a formulation of interacting string field theory. In the first publication, the operator formulation of the theory was developed with a novel interaction vertex formulated in the string Hilbert space. This approach gave a framework for establishing the gauge invariance of the theory and a formulation of Feynman rules and it has been used in many applications. Professors Jevicki and Gross have extended their work to Superstrings and the development of a field theory of closed strings promises to give a fundamental and novel understanding of general relativity. During the next several years, Professor Jevicki has concentrated on investigation of String Theory and Matrix Models in Low Dimensions. First, a novel and very fruitful relationship with statistical random matrix models was discovered. It was used by Professor Jevicki and his collaborators to develop a collective string field theory. This field theory in turn led to discovery of new spectrum generating symmetries called  $w_!$  which were studied in a series of papers by Prof. Jevicki and Jean Avan. The most interesting recent line of research concerns the discovery of Black Holes in these theories. In turn, one has the exciting possibility of understanding the challenging problems of Black Holes through String Theory.

- During the past several years, Professor Jevicki concentrated his efforts on the investigations of M theory. This rapidly emerging new subject promises a successful unification of all known forces including String Theory and Quantum Gravity and represents some of the most far reaching and vigorous directions of present day theoretical physics. A fascinating feature of this new theory lies

in the fact that matrices contain the information for reproducing all physical phenomena including gravity. One of the first papers exhibiting how an extra physical dimension arises from matrices was written by Professor Jevicki with Sumit Das (Tata Institute) a decade ago. During the last several year Professor Jevicki (collaborating with number of postdocs and research visitors) has expanded his effort to contribute further to this most fundamental phenomena on the origin of extra dimensions.

With Dr. Sanjaye Ramgoolam (Queen Mary College, London) and his student M. Mihailescu, Prof. Jevicki has introduced a formulation of non-commutative gravity related to M-theory. In the papers (Refs. 74,75,77 and 79), a picture of non-commutative gravitational space-time was developed where the graviton becomes an extended object. This manifestation of M(atrrix) theory has attracted certain interest (related papers appeared by L. Susskind and collaborators at Stanford who call this object a “Giant Graviton”). The properties of the Giant Gravitons have been studied intensively by Prof. Jevicki in collaboration with (Profs. Das and Mathur, Tata Institute, Bombay) (Refs.78 and 80) in the list of publications.

## 5. Books

1. “Symmetries, Quarks and Strings”, M. Kaku, A. Jevicki and K. Kikkawa, World Scientific (1991).
2. “Particles, Strings and Supernovae”, edited by A. Jevicki and C-I Tan, World Scientific (1989).

## 6. Proceedings

1. “A Collective Coordinate Method for Quantization of Extended Systems” (with J. L. Gervais and B. Sakita), Proceedings of Paris Conference, Phys. Reports 23, 237 (1976).
2. Path Integral Quantization of Solitons, in “The Significance of Non-linearity in the Natural Sciences,” Proceedings of Orbis Scientiae 1977, Plenum Publishing Co., 1977.
3. “Classical and Quantum Dynamics of Integrable Nonlinear Field Theories”(published in Proc. of Conference on Nonlinear Partial Differential Equations in Engineering and Applied Sciences), edited by R. L. Sternberg, A. J. Kalinowski, and J. S. Papadakis. Marcel Dekker Pub., 1980.
4. “Semiclassical Approach to Large N Expansion”. An invited talk at the XXth International Conference on High Energy Physics, Madison, 16-23 July 1980, and the Santa Barbara Conference on Lattice Gauge Theories, 28 July-1 August 1980, Published in APS Conference Proceedings.
5. “Proceedings of the Workshop and Nonperturbative Studies in Quantum

- Chromodynamics”, A. Jevicki and C-I Tan, ed., Brown HET-457, 1981.
6. “Large N, Loop Space Methods”, Proceedings of the XXII International Conference on High Energy Physics, 1984.
  7. “Large N, Loop Space and Master Field Methods in Nonabelian Gauge Theories and Quantum Gravity” (Frontiers in Particle Physics 1983), Proceedings of the IV Adriatic Meeting on Particle Physics, World Scientific Pub., 1984.
  8. “Lectures on Interacting String Theory”, Proceedings of the V Adriatic Meeting on Particle Physics, M. Martinis editor, World Scientific Pub. (1986).
  9. “Three Lectures on String Field Theory” (presented at the ICTP Workshop on Particle Physics and Cosmology, Trieste, June 27 - August 9, 1987; J.C. Pati and Q. Shafi editors, World Scientific Pub. Co. (1988).
  10. “Lectures on String Field Theory and Renormalization Group”, Proceedings of the XIV Karpacz Winter School on Theoretical Physics, ed. Z. Haba.
  11. “Topological Field Theory”, Lectures at the VI Adriatic Meeting on Particle Physics, Nucl. Phys. B (Proc. Suppl.) 15, 125 (1990).
  12. “Interactions of Strings”, A contribution to the Paul Senjanovic Memorial Volume, Fizika, Vol. 18, No 1 (1986).
  13. “Operator Formulation of Witten’s String Field Theory”, Brown HET report, proceedings of the XXIII International Conference on High Energy Physics, World Scientific (1986).
  14. “Conformal Field Theory Methods and Construction of Witten’s Superstring Field Theory” in Proceedings of the NATO Workshop on Superstrings, Boulder, World Scientific Pub., (1987), P.G.O. Freund and K. Mahantappa editors.
  15. “Witten’s String Field Theory”, Brown HET-, 1987, Proceedings of the Yukawa-Nishinomiya Symposium, Springer-Verlag Pub. Co. (1988), edited by T. Kugo.
  16. “Renormalization Group and String Field Theory”, Brown-HET, Sept. 1988, Proceedings of the XXIV International Conference on High Energy Physics (1989).
  17. “String Field Theory and the Renormalization Group”, Proceedings of the DPF Meeting on Particles and Fields, World Scientific (1988).
  18. “Collective Field Theory and the Schwinger-Dyson Equations”, Brown HET-777; contribution to the conference in honor of B. Sakita’s 60th Birthday on “Symmetries, Quarks and Strings”, edited by M. Kaku, A. Jevicki and K. Kikkawa, World Scientific (1991).
  19. “Field Theory of Matrix Models and Strings”, A. Jevicki, a talk given at the PASCOS-91 Symposium on Particles, Strings and Cosmology, Boston, March 23-28, 1991; Brown HET-815; to appear in the Proc., eds. P. Nath and S. Reucroft, World Scientific.
  20. “Symmetries of 2D String Theory” Proceedings of the SUSY ‘93 Conference, World Scientific Pub., P. Nath ed.
  21. “Fields and Symmetries of 2-D Strings”, Brown-HET-894, Proceedings of

- the Nishinomiya-Yukawa Symposium, Springer Verlag Pub., M. Ninomiya (1992).
22. “Developments in Two-Dimensional String Theory”, Brown-HET-918, Proceedings of the Spring School on String Theory and Quantum Gravity, World Scientific, Pub. ed. R. Dijkgraaf and I. Klebanov.
  23. “Lectures on Path Integrals, Strings and Matrix Models”, Brown-HET-951 (S. Africa) 1994, Lecture Notes in Physics Vol. 456. Springer (1995).
  24. “Matrix Models, Open Strings and Quantization of Membranes”, A. Jevicki, a talk given at Summer 96 Theory Institute: Topics in Non-Abelian Duality, Argonne, IL, 27 June - 12 July 1996.
  25. “Symmetries of String Theories”, A. Jevicki, a talk given at Conference on Unified Symmetry in the Small and in the Large, Coral Gables, FL, 25-27 Jan. 1993 (393-405).
  26. “From Loop Space to Field Theory of Noncritical Strings”, A. Jevicki, prepared for 11th International Conference on Mathematical Physics (ICMP-11) (Satellite colloquia: New Problems in the General Theory of Fields and Particles, Paris, France, 25-28 Jul 1994), Paris, France, 18-23 Jul 1994, Mathematical physics (728-729).
  27. “Symmetries of the AdS-CFT Correspondence” in the Proceedings of the 1998 Komaba Workshop on “D-branes and Matrix Models”, April 1999, University of Tokyo.
  28. “Gravity as Collective Phenomena from Gauge Theories”, Proceedings of the RIKEN/BNL Research Center Workshop, Volume 20, 2000, Brookhaven National Laboratory.
  29. “Aspects of Noncommutativity in ADS/CFT”, Quantum Chromodynamics, World Scientific (2002).
  30. “**AdS String: Classical Solutions and Moduli Dynamics.**” with (K. Jin, [Brown U.](#)) . Jan 2010. 15pp.  
 Proceedings of 10TH WORKSHOP ON NON-PERTURBATIVE QUANTUM CHROMODYNAMICS, 8-12 Jun 2009, Paris, France.  
 e-Print: [arXiv:1001.5301](#) [hep-th]

## 7. Reprinted Papers

The following papers (denoted by stars in the list of publications) were reprinted in various collections of papers:

1. “Perturbation Expansion around Extended Particle States in Quantum Field Theory” [Ref.2] reprinted in the series “Selected Papers in Physics” (Volume on the “Theory of Gauge Fields”) published by the Physical Society of Japan, 1976.
2. A CollectiveCoordinate Method for Quantization of Extended Systems” [Ref.3] reprinted in the Collection “Nonlinear Phenomena in Quantum Physics” World Scientific Pub. Co., 1984.
3. Semi-Classical Spectrum of the Continuous Heisenberg Spin Chain” [Ref. 15] reprinted in the collection “Coherent States”, J. R. Klauder and B. S.

- Skagertsam editors. World Scientific Pub., 1984.
4. "The Quantum Collective Field Method and Its Application to the Planar Limit" [Ref. 18], reprinted in the collection "Large N Methods in Field Theory and Statistical Physics", World Scientific, Ed. E. Brezin and S.Wadia.
  5. "String Field Theory and Physical Interpretation of  $c=1$  Strings" [Ref. 61], reprinted in the collection "Two-dimensional String Theory", ed. by D. Gross and I. Klebanov, Princeton and the collection of papers in "Large N Methods in Field Theory", World Scientific, E. Brezin and S. Wadia ed.

## 8. Journal Articles

1. "Stringlike Solution of the Higgs Model with Magnetic Monopoles" (with P.Senjanovic), Phys. Rev. D11, 860 (1975).
2. "Perturbation Expansion around Extended Particle States in Quantum Field Theory" (with J. L. Gervais and B. Sakita), Phys. Rev. D12 (1975).
3. "A Collective Coordinate Method for Quantization of Extended Systems" (with J. L. Gervais and B. Sakita), Phys. Reports 23, 237 (1976).
4. "Point Canonical Transformations in the Path Integral" (with J. L. Gervais), Nucl. Phys. B110, 93 (1976).
5. "Quantum Scattering Theory of Solitons" (with J. L. Gervais), Nucl. Phys. B110, 113 (1976).
6. "Extended Particles in Quantum Field Theory", Ph.D. Thesis, CUNY, 1976.
7. "Treatment of Zero-Frequency Modes in Perturbation Expansion about Classical Field Configurations", Nucl. Phys. B117, 365 (1976).
8. "Field Theories in Terms of Particle-String Variables: Spin and Internal Symmetry" (with M. B. Halpern and P. Senjanovic), Phys. Rev. D16, 2476 (1977).
9. "Quantum Fluctuations of Pseudoparticles in the Nonlinear  $\phi^4$ -Model", Nucl. Phys. B127, 125 (1977).
10. "On the Ground State and Infrared Divergences of Goldstone Bosons In Two Dimensions", Phys. Lett. 71B, 327 (1977).
11. "Perturbation Theory in Terms of Currents and Restoration of Continuous Symmetry in Two Dimensions", Nucl. Phys. B146, 77 (1978).
12. "Exact Analysis of Coulomb Gauge Vacuum Degeneracies in Three Dimensions" (with N. Papanicolaou), Phys. Lett. 78B, 438 (1978).
13. "Instantons and the  $1/N$  Expansion in Nonlinear  $\phi^4$ -Models", Phys. Rev. D20, 3331 (1979).
14. "Semi-Classical Spectrum of the Continuous Heisenberg Spin Chain" (with N. Papanicolaou), Ann. Phys. 120, 107 (1979).
15. "Statistical Mechanics of Instantons in Quantum Chromodynamics", Phys. Rev. D21, 992 (1980).
16. "The Quantum Collective Field Method and Its Application to the Planar Limit" (with B. Sakita), Nucl. Phys. B165, 511 (1980).

17. "Classical Dynamics in the Large N Limit" (with N. Papanicolaou), Nucl. Phys. B171, 362 (1980).
18. "Loop Space Formulation and the Large N Behavior of the One-plaquette Kogut-Susskind Hamiltonian" (with B. Sakita), Phys. Rev. D22, 467 (1980).
19. "Semiclassical Approach to Planar Diagrams" (with H. Levine), Phys. Rev. Letters 44, 1443 (1980).
20. "Large N Classical Equations and their Quantum Significance" (with H. Levine), Harvard University preprint 1980, Ann. of Physics, Vol. 136, 113 (1981).
21. "Noncompact sigma Models and the Existence of a Mobility Edge in Disordered Electronic Systems" (with A. Houghton, R. Kenway, and A. M. Pruisken), Brown preprint HET-402, Phys. Rev. Lett. 45, 394 (1980).
22. "Collective Field Approach to the Large N Limit: Euclidean Field Theories" (with B. Sakita), Nucl. Phys. B185, 89 (1981).
23. "Dual Description of Non-Abelian Gauge Fields: Fermions in Loop Space", Brown HET-441 Report, 1981.
24. "Loop Space Effective Hamiltonians and Numerical Methods for Large N Gauge Theories" (with O. Karim, J. P. Rodrigues and H. Levine), Nucl. Phys. B213, 169 (1983).
25. "On the Large N Limit in Symplectic Models" (with I. Andric and H. Levine), Nucl. Physics B: Statistical Mechanics and Field Theory, 1982, B215, [FS7] 307 (1983).
26. "Loop Space Effective Hamiltonians and Numerical Methods for Large N Gauge Theories II" (with O. Karim, J. P. Rodrigues and H. Levine), Nucl. Phys. B230, 299-317 (1984).
27. "Master Variables and Spectrum Equations in Large N Gauge Theories" (with J. P. Rodrigues), Nucl. Phys. B: Field Theory and Statistical Physics, B230, [FS10] 317-335 (1984).
28. "Dual Representation and Ultraviolet Divergences in Nonlinear  $\sigma$ -Models" (with B. Fridling), Physics Lett. Vol. 134B, 70 (1984).
29. "Singular Potentials and Supersymmetry Breaking" (with J. P. Rodrigues), Phys. Lett. B146, 55 (1984).
30. "Lattice Gravity and Strings" (with M. Ninomiya), Physics Letters, 150B, 115 (1985).
31. "Functional Formulation of Regge Gravity" (with M. Ninomiya) Phys. Rev. D33 1634 (1986).
32. "Sigma Models as S-Matrix Generating Functions of Strings" (with B. Fridling) Physics Letters B174, 75 (1986).
33. "Covariant String Theory Feynman Amplitudes" Physics Letters, 169B, 359 (1986).
34. Operator Formulation of Interacting String Field Theory I" (with David J. Gross) Princeton preprint (1986) Nucl. Phys. B283, 1 (1987).
35. "Operator Formulation of Interacting String Field Theory II: Ghosts" (with David J. Gross) Santa Barbara ITP preprint (October 1986) Nucl. Phys. B287, 225 (1987).
36. "The Explicit Form of the Operator Connecting the CSV and the Witten

- Vertices" (with Aleksandar Bogojevic') Nucl. Phys. B287, 381 (1987).
37. "Bose-Fermi Equivalence in Witten's Interacting String Field Theory" (with Z. Hlousek) Nucl. Phys. B288, 139 (1987).
  38. "Operator Formulation of Interacting String Field Theory III: Superstrings" (with D. J. Gross) Brown HET Reprint, January 1987, Nucl. Phys. B293, 29 (1987).
  39. "The S-Matrix Generating Functional and the Effective Action" (with Choonkyu Lee) Brown HET-634, Sept., 1987, Phys. Rev. D15.
  40. "Supersymmetry Transformation in the Operator Formulation of Witten's Superstring Field Theory" (with B. Sazdovic) Brown HET, Oct., 1987.
  41. "Construction of Interacting String and Superstring Field Theory" International Journal of Modern Physics (1988).
  42. "Supersymmetry Transformations in String Field Theory" (with B. Sazdovic) Annals of Physics, Vol. 188, 347 (1988).
  43. "Quartic Interaction in Superstring Field Theory" (with A. Bogojevic and G. Meng), Brown HET-672.
  44. "String Field Theory from Weyl Invariance" (with S. Jain) Brown HET-683, Physics Letters 220B, 379 (1989).
  45. "String Field Theory and the Physical Interpretation of D=1 Strings", (with S. Das), Mod. Phys. Lett. A5, 1637 (1990).
  46. "Action Principle for Strings in Less Than One Dimensions", (with T. Yoneya), Mod. Phys. Lett. A5, 1615 (1990).
  47. "Effective Actions for Matrix Models", (with T. Yoneya).
  48. "Scattering Amplitudes and Loops in Collective String Field Theory (I)", (with K. Demeterfi and J. Rodrigues), Nucl. Phys. B362, 173 (1991).
  49. "Scattering Amplitudes and Loops in Collective String Field Theory (II)", (with K. Demeterfi and J. Rodrigues), Nucl. Phys. B365, 499 (1991).
  50. "Classical Integrability and Higher Symmetries of Collective String Field Theory", (with J. Avan), Phys. Lett. B266, 35 (1991) and Brown HET-801.
  51. "Nonperturbative Collective Field Theory", Nucl. Phys. B376, 75 (1992).
  52. "Supersymmetric Collective Field Theory", (with J. Rodrigues), Phys. Lett. B268, 53 (1991).
  53. "Perturbative Results on Collective String Field Theory", (with K. Demeterfi and J. Rodrigues), Mod. Phys. Lett. A Vol. 6, No. 35 (1991) 3199.
  54. "Collective Field Theory and the Schwinger-Dyson Equations", Brown HET-777, A contribution in honor of Bunji Sakita's 60th birthday, to appear in Proc. of Mtg. Symmetries, Quarks and Strings, New York, N.Y., Oct 1-3, 1990.  
Published in NY Quarks, *Symm.Str.*1990:100-110 ([QCD161:S942:1990](#))
  55. "Quantum Integrability and Exact Eigenstates of the Collective String Field Theory", (with J. Avan), Phys. Lett. B272, 17 (1992) and Brown HET-824.
  56. "String Field Actions From W'", (with J. Avan), Mod. Phys. Lett. A7,(1992) 357 and Brown HET-839.
  57. "Algebraic Structures and Eigenstates for Integrable Collective Field Theories", (with J. Avan), Brown HET-847 Published in



**Commun.Math.Phys.150:149-166,1992.**

e-Print: **hep-th/9202065**

58. "Interacting Theory of Collective and Topological Fields in 2 Dimensions", (with J. Avan), Nucl. Phys.B397 (1993) 672-702.
59. "Scattering States and Symmetries in the Matrix Model and Two Dimensional String Theory", (with J. Rodrigues and A. J. van Tonder), Nucl. Phys. B 404, (1993) 91.
60. "A Deformed Matrix Model for the Black Hole Background in 2-D String Theory", (with T. Yoneya), Nucl. Phys. B 411 (1994) 64.
61. "Loop Space Hamiltonians and Field Theory of Noncritical Strings", (with J. Rodrigues), Nucl. Phys. B 421 (1994) 278.
62. "Collective Hamiltonians with Kac-Moody Algebraic Conditions", (with J. Avan), Nucl. Phys. B439 (1995) 679-691.
63. "Doubling of Scattering Phase Shifts for 2D Strings" (with M. Li and T. Yoneya), Nucl. Phys. B448 (1995).
64. "Field Theory of SU(R) Spin Calogero-Moser Models", (with J. Avan and J. Lee), hep-th/9607083, Published in **Nucl.Phys.B486:650-672,1997.**  
e-Print: **hep-th/9607083**
65. "Finite [Q Oscillator] Representation of 2-D String Theory", (with A. van Tonder, Mod. Phys. Lett. A11 (1996) 1397-1410.
66. "Collective Field Theory of the Matrix Vector Models", (with J. Avan), Nucl. Phys. B469 (1996) 287-301.
67. "Large N WZW Quantization of Self Dual Gravity", (with M. Mihailescu and J. Nunes), Physic. Lett. B (1997) [HEP-th/9706223].
68. "Light-front Partons and Dimensional Reduction in Relativistic Field Theory", hep-th 9711088, Phys. Rev. D57 (1998) 5955.
69. "Large N. Field Theory of N=2 Strings and Self-Dual Gravity", (with M. Mihailescu and J. P. Nunes), Published in **Chaos Solitons Fractals 10:385-397,1999.** e-Print: **hep-th/9804206**
70. "Space-Time Uncertainty Principle and Conformal Symmetry in D Particle Dynamics", (with T. Yoneya), Nucl. Phys. B535 (1998) 335, hep/th/9805069.
71. "Evaluation of Glueball Masses from Supergravity", (with R. de Mello Koch, M. Mihailescu and J. P. Nunes), Phys. Rev. D58 (1998) 5072, hep-th/9806125.
72. "Quantum Metamorphosis of Conformal Transformation in D3-Brane Yang-Mills Theory", (with Y. Kazama and T. Yoneya), Phys. Rev. Lett. 81 (1998) 5072, hep-th/9808039.
73. "Generalized Conformal Symmetry in D-Brane Matrix Models", (with Y. Kazama and T. Yoneya), hep-th/9810146, Phys. Rev. D59 (1998) 066001.
74. "Noncommutative Gravity from the ADS/CFT Correspondence", (with S. Ramgoolam), JHEP 9904:032 (1999), hep-th/9902059.
75. "Gravity from CFT on  $S^{*}N(X)$ : Symmetries and Interactions", (with M. Mihailescu and S. Ramgoolam), Nucl. Phys. B577 (2000) 47-72, hep-th/9907144.
76. "Lumps and P-branes in Open String Field Theory", (with R. de Mello

- Koch, M. Mihailescu and R. Tatar), Phys. Lett. B482, 249 (2000), hep-th/0003031.
77. “Noncommutative Spheres and the ADS/CFT Correspondence”, (with M. Mihailescu and S. Ramgoolam), JHEP 0010:008 (2000), hep-th/0006239.
  78. “Giant Gravitons, BPS Bounds and Noncommutativity”, (with S. Das and S. Mathur), hep-th/0008088, Phys. Rev. D63 044001 (2001).
  79. “Hidden Classical Symmetry in Quantum Spaces” (with M. Mihailescu and S. Ramgoolam ), Los Alamos Preprint Archive: hep-th/0008186.
  80. “Vibration Modes of Giant Gravitons” (with S. Das and S. Mathur), hep-th/0009019, Phys. Rev. D63 024013 (2001).
  81. “Exact Correlators of Giant Gravitons from Dual N=4 SYM Theory” (with S. Corley, and S. Ramgoolam), hep-th/01112222, Adv. Theor. Math. Phys. 5:809-839,2002.
  82. “Dynamics of Black Hole Formation in an Exactly Solvable Model“, (with J. Thaler), hep-th/0203172, Phys. Rev. D66 024041 (2002).
  83. “Collective String Field Theory of Matrix Models in the BMN Limit“(with R. De Mello Koch and J.P. Rodrigues), Published in **Int.J.Mod.Phys.A19:1747-1770,2004.**  
e-Print: **hep-th/0209155**
  84. “Derivation of String Field Theory from the Large N BMN Limit” (with . R. de Mello Koch, J. P. Rodrigues and A. Donos), Phys. Rev. D68:065012,2003.
  85. “Large N Collective Fields and Holography” (with Sumit R. Das (U Kentucky), Phys. Rev. D68:044011,2003.
  86. “Collective ring Field Theory of Matrix Models in the BMN Limit”(with R. deMello Koch and J. Rodrigues (U Witwatersrand)), Int. J. Mod. Phys. A19; 1770, 2004.
  87. “Instantons in C=0 CSFT” (with R. de Mello Koch and J. Rodrigues), Published in **JHEP 0504:011,2005.** e-Print: **hep-th/0412319**
  88. “Towards S Matrices on Flat Space and PP Waves from SYM” (with H. Nastase), e-Print Archive: hep-th/0501013, 2004.
  89. “Collective String Field Theory of Matrix Models in the BMN Limit” (with R. de Mello Koch and J. P. Rodrigues (U Witwatersrand )), Int. J.Mod. Phys. A19; 1747-1770, 2004.
  90. “Instantons in C=0 CSFT” (with R. de Mello Koch and J. P. Rodrigues (Witwatersrand U)), JHEP, 0504; 011, 2005.
  91. ”Notes on collective Field Theory of Matrix and Spin Calogero Models” (with I. Aniceto), Journal of Phys.A39:12765-12792,2006.
  92. “Constructing String Field Theory from Large N Gauge Theory”, Int. J. Mod. Phys. A20: 4532-4539, 2005.
  93. “Matrix Model Maps in Ads/CFT”, (with A. Donos, and J. Rodrigues), Phys. Rev. D72: 125009, 2005.
  94. “Dynamics of Chiral Primaries in AdS(3) times S\*\*3 times T\*\*4, ( with A. Donos), Brown-HET1459, Phys.Rev.D73:085010,2006.
  95. ”ADS/CFT” (with A.Donos), [HEP-TH 0612262]. Published in Proceedings of Science, PoS P2GC:011,2006.

96. "Matrix Model Maps and Reconstruction of AdS SUGRA Interactions" (with S. Cremonini, R. de Mello Koch), Published in **Phys.Rev.D77:105005,2008**. e-Print: **arXiv:0712.4366** [hep-th]
97. "1/2 BPS Correlators and C-1 S-Matrix" (with T. Yoneya), [HEPTH 0612262] JHEP 0703:001,2007.
98. "Dressing the Giant Gluon" (with Ch. Kalousios, M. Spradlin and A. Volovich,), JHEP 0712:047,2007.
99. "Generating ADS String Solutions" (with K. Jin, Ch. Kalousios and A. Volovich) [e-Print:arXiv:0712.193] JHEP 0803:032,2008.
100. "Solitons and ADS String Solutions" (with K. Jin), Int. J. Mod. Phys.A23:2289-2298,2008.
101. "Matrix Model Maps and Reconstruction of AdS SUGRA Interactions", (with S. Cremonini, and R. de MelloKoch), Phys.Rev.D77: 105005,2008.
102. "N-body Dynamics of Giant Magnons in  $R \times S^{*2}$ " (with I. Aniceto), e-Print: arXiv:0810.4548, 2008 [hep-th].
103. "AdS String: Classical Solutions and Moduli Dynamics" (with K. Jin), arXiv:1001.5301 [hep-th]
104. "Poisson Structures of Calogero-Moser and Ruijsenaars-Schneider Models" (with I. Aniceto and J. Avan and), Published in **J.Phys.A43:185201,2010**. e-Print: **arXiv:0912.3468** [nlin.SI]
105. "Series Solution and Minimal Surfaces in AdS" (with K. Jin ), BROWN-HET-1588, Nov 2009. 19pp. Published in **JHEP 1003:028, 2010**. e-Print: **arXiv:0911.1107** [hep-th]
106. "Moduli Dynamics of AdS<sub>3</sub> Strings" (with K. Jin), Published in **JHEP 0906:064,2009**. e-Print: **arXiv:0903.3389** [hep-th]
107. "AdS<sub>4</sub> CFT<sub>3</sub> Construction from Collective Fields" (with R. deMello Koch, J. Rodrigues, Witwatersrand U) Published in **Phys. Rev. D83:025006** (2011).
108. "Bi-Local Model of AdS/CFT and Higher Spin Gravity" (with K. Jin, Q. Ye , Brown) e-print: **arXiv:1112.2656** [hep-th]
109. "Collective Dipole Model of AdS/CFT and Higher Spin Gravity" (with K. Jin and Q. ye, Brown U) Published **J.Phys.A44:465402,2011**.

## 9. Invited Lectures at Meetings and Conferences

1. Orbis Scientia 1977, "Significance of Nonlinearity in the Natural Sciences", (Invited talk).
2. Conference on Nonlinear Partial Differential Equations in Engineering and Physics, Kingston (1979), (Invited talk).
3. Invited Talk, Annual Meeting of the American Physical Society, Chicago

1980.

4. "Semi-classical Approach to Large N Expansion" XX International Conference on High Energy Physics, Madison (1980), (Invited talk).
5. Santa Barbara Conference on Lattice Gauge Theories, 26-30 July, 1980 (talk).
6. "Large N Expansion", Second United Kingdom Summer Institute, St. Andrews, August 28 - September 11, 1981, (lecturer).
7. Institut D'Ete, Ecole Normale Superieure, Paris, August 1981, (talk).
8. "Large N Approach in Quantum Chromodynamics", Santa Barbara Workshop "Fundamental Basis of Phenomenological Models in High Energy Physics", 1981, (Invited lecturer).
9. "Loop Space Equations in Gauge Theories", Nordita Meeting on Integrable Systems and Field Theory, Copenhagen September 1982, (Invited talk).
10. IV Adriatic Meeting on Particle Physics, Dubrovnik, 16 - 23 July 1983, (lecturer), Proceeding ed. by L. Andricetal, World Scientific Pub.
11. Institute D'Ete, Ecole Normale Superieure, August 1984 (talk)
12. XXII International Conference on High Energy Physics, Leipzig 1984, Invitedtalk, Published in the Proceedings.
13. Invited talks at the Santa Barbara Meeting on Discrete Gravity, ITP Santa Barbara (July 15 - 27, 1985).
14. Talk entitled "Interactions of Strings", Paul Senjanovic Memorial Meeting, Belgrade, December 10-15 (1985).
15. Lecturer, V Adriatic Meeting on Particle Physics, Dubrovnik June 15-28 (1986). Proceedings ed. by M. Martinis et al. (World Scientific Pub. 1986).
16. Invited talk, XXIII International Conference on High Energy Physics, Berkeley, July (1986). Published in the Proceedings (World Scientific Pub. Co. 1986).
17. "String Field Theory", Institut D'Ete, Ecole Normale Superieure, August 1986, Paris, France.
18. "Superstring Field Theory" Invited talk, Santa Barbara Conference Superstrings, ITP, December 19-22 (1986).
19. "Lectures on String Field Theory", ICTP Workshop on Particle Physics and Cosmology, Trieste, Italy, June 27 - August 9, (1987) (lecturer, discussion leader).
20. Invited talk, NATO Workshop on Superstrings, Boulder, Colorado, July (1987).
21. "Wittens String Field Theory", Invited speaker at the Yukawa-Nishinomiya Symposium, October 19- 23, 1987.
22. Kyoto Workshop on Superstrings, October 23 - October 31 (1987), Kyoto, Japan.
23. Lecturer, Crete Workshop on Superstring (invited talk), Orthodox Academy of Crete, July 1988.
24. Invited talk, XXIV International Conference on High Energy Physics, Munich, August 4-10, 1988.

25. Session Co-Chairman, Meeting of the American Physical Society, August 15-18, 1989, Storrs, Connecticut.
26. Invited lecturer at the 1989 Karpacz Winter School on Theoretical Physics, Feb. 1988, Karpacz, Poland.
27. Invited Lecturer, V Adriatic Meeting on Particle Physics, June 1989, Dubrovnik, Yugoslavia.
28. Participant of the US-USSR Meeting on String Theory, October 1-6, 1989, Princeton.
29. Invited speaker, Colloquium on Modern Quantum Field Theory, January 7-15, 1990, TATA Institute, Bombay, India.
30. Invited speaker at the Johns Hopkins Meeting on "Nonperturbative Quantum Field Theory", Debrecen, Hungary, August 1990.
31. Speaker at the Second PASCOS Symposium on "Particles, Strings and Cosmology", March 25-30, 1991.
32. Invited speaker at the XX Conference on "Differential Geometric Methods in Theoretical Physics", New York, NY, June 3-7, 1991.
33. Lecturer Ecole D'Ete, Ecole Normale Supérieure, Paris, August 1991.
34. Invited lecturer, Yukawa-Nishinomiya Symposium on Quantum Gravity, November 18-21, 1992.
35. Dissertator, Conference on Unified Symmetries in the Small and in the Large, January 25-27, 1992, Coral Gables, Florida.
36. Invited lecturer at the "Spring School on String Theory and Quantum Gravity", Thieste, Italy (April 15-27, 1993).
37. Invited speaker at the "Strings 93" Conference, Berkeley, CA (May 20, 1993).
38. Invited lecturer at the "Institute D'Ete", Ecole Normal Supérieure, Paris (August 9-27, 1993).
39. Invited speaker, Colloquium on Topology, Strings and Integrable Models, Inst. M. Poincare, Paris (July 1994).
40. Lecturer, XI South African Summer School on Theoretical Physics, (7-21 January 1994).
41. Lecturer at the Komaba Workshop on "D-branes, M-Theory and AdS/CFT" January 6-7, 1999, University of Tokyo, Japan.
42. Invited Speaker, Conference on Gauge-Invariant Variables in QCD, Riken-BNL Research Center, May 25-29, 1999.
43. Invited Lecturer, School of Theoretical Physics, Korea Institute for Advanced Study, August 6-16, 1999.
44. Lecturer and Co-organizer, Workshop on Brane, KIAS, Seoul, Korea, June 5-15, 2000.
45. Invited Speaker at the Orbis Conference, Ft Lauderdale, Florida, Dec 2000.
46. Invited Participant in the ITP Workshop on M-branes, Institute for Theoretical Physics, Santa Barbara, March 2001.
47. Invited Lecturer at the Fourteenth C. Engelbrecht Conference on Theoretical Physics "Quantum Gravity, String Theory and Cosmology", January 23-Feb 1, 2002, Stellenbosch, South Africa.

48. Invited Speaker at DARK 2002, Forth International Conference on Astro and Particle Physics, Cape Town, South Africa, 4-9 February 4-9, 2002.
49. Invited speaker at the 8th International Wigner Symposium held during May 27-30, 2002 at the Graduate School of The City University of New York, NYC.
50. During September 4-14, 2003, Professor Jevicki was invited as lecturer at the (9th Adriatic Meeting) entitled "Particle Physics and the Universe", September 4-14, 2003. Professor Jevicki's lectures on "Construction of String Field Theory from Super Yang-Mills Theory" gave an overview of recent developments in building string theory from gauge theories. The original, analytic formulation for open strings was developed in the 80's by Professor Jevicki and Prof. D. Gross (Princeton, now Director, ITP, Santa Barbara). The formulation of the theory by Gross and Jevicki has presently become a topic of very active investigations.
51. Invited speaker at the Symposium: workshop, "Komaba 2003, Recent Development in Strings and Fields: In memory of Bunji Sakita", held at University of Tokyo during November 27th and 28th, 2003. The purpose of the workshop is to discuss recent rapidly developing topics in string theory and honor the memory of Prof. Bunji Sakita one of the innovators of the field.
52. Speaker, The Eight Conference on Non-Perturbative Quantum Chromodynamics, Paris, France (June 7-11, 2004). "Constructing String Field Theory from Large N Gauge Theory", (HET-1426), to be published by World Scientific.
53. Invited lecturer at the Dubrovnik School on Particle Physics, Gravity and Cosmology, Aug 26-Sept 4, 2006, as part of the Central European Joint Program of Doctoral Studies in Theoretical Physics. Professor Jevicki's lecture series entitled "Developements in the AdS/CFT Correspondence" reviewed ongoing developements on the duality between Gauge theories and Gravity. The lectures also reviewed original work by Prof. Jevicki, S. Corley and S. Ramgoolam. This work followed by a paper of Lin, Lunin and Maldacena was one of the main topics of recent studies in the field. The work of Corley, Jevicki and Ramgoolam has received over 130 citations to date (according to (SPIRES)).
54. Invited speaker at the Group Theory "Wigner Conference" held at The Graduate Center of The City University of New York ( June 10-15, 2006). The talk entitled "Matrix Model Maps in ADS/CFT gave an overview of recent work by Prof. Jevicki and his collaborators on formulation of an exact map between gauge theory and gravity ( a topic of major current interest).
55. Topical Conference on "String Theory and Cosmology" held at McGill University, Nov. 2006.
56. Lecturer at the Swedish Royal Institute of Technology, Stockholm, June 11-21, 2007. The school entitled "Aspects of Membrane Dynamics" was held on the occasion of 25th year of membrane theory with a purpose to give a comprehensive overview and bring together leading researchers in

the field Professor Jevicki's lecture series entitled "Collective Fields, Branes and Super-gravity" concentrated on joint work of Prof. Jevicki with S. Corley and S. Ramgoolam on dynamics of 1/2 BPS branes.

57. "Recent Developments in String Theory". held at the Institute of Physics, Tokyo University was during Feb. 9-11, 2007 in honor of Prof. T. Yoneya's 60th birthday.
58. "Quantum Field Theory and Non-commutative Geometry" held at the University of Zagreb, 29 May-2 June, 2007, talk: "Non-commutative space-time in AdS/CFT" gave a review of recent and some earlier developments.
59. "Conference on Integrable Systems in Physics and Mathematics" held at the Osaka City University, Japan, Dec 9-16, 2007, talk: "Classical String Dynamics in ADS Space" reviewed recent work done in collaboration with M. Spradlin, A. Volovich, Kewang Jin.
60. Professor Jevicki was an invited lecturer at Theoretical Physics Summer School, Budapest, Hungary, Aug. 25-30, 2008. The School entitled "Integrable Theories in Field Theory" dealt with latest applications of integrability techniques in nonperturbative field theory.
61. Professor Jevicki was the main speaker at the Inauguration of the National Institute for theoretical Physics, University of Witwatersrand, South Africa, May 26-28, 2009.
62. Professor Jevicki was an invited lecturer at Summer School in Theoretical Physics on "AdS/CFT Correspondence and its Applications", Aug. 24-28, Tihany, organized by the Hungarian Academy of Sciences.
63. Professor Jevicki was an invited speaker at Conference on Quantum Theory and Symmetries, Univ. of Kentucky, Lexington, July 20-July 15, 2009.
64. Professor Jevicki was a speaker at the Tenth Workshop on Quantum Chromodynamics, June 8-12, Paris, France.
65. Professor Jevicki was a participant at the Institute D'Ete, Ecole Normale Supérieure, Paris, France, Aug. 17-28, 2009 on "ADS TCC et Problèmes Apparentes".
66. Professor Jevicki was an invited lecturer at the Joburg Workshop on String Theory, Nov. 30-Dec. 5, 2009.
67. Professor Jevicki was an invited speaker at the Winter Workshop on Nonperturbative Quantum Field Theory, Sophia-Antipolis, Jan. 18-22, France.
68. Invited speaker and participant at the Simons Center Workshop on Higher Spin Theories and Holography, Stony Brook University, March 14-18, 2011
69. Invited speaker at The Ecole d'Ete, Ecole Normal Supérieure, Paris, France, August 17-25, 2011
70. Invited speaker at the Eleventh Workshop on Nonperturbative Quantum Chromodynamics, Institut Astrophysique, Paris, France, June 6-10, 2011.

71. Invited speaker at the John Hopkins Meeting on ADS/CFT and its Applications, Eotvos University, Budapest, June 21-24, 2011.
72. Speaker, Recontres de Vietnam, International Conference on Multiparticle Scattering, Guy Nhon, Vietnam, December 15-21, 2011.

## 10. Seminars

Since coming to Brown (September 1979), Professor Jevicki was invited to give the following seminars and talks:

1. Rutgers University, High Energy Physics Seminar (March 1979).
2. Cornell University, 21 April 1979, Theoretical Seminar (21 April 1979).
3. Aspen Center for Physics, Workshop on QCD, Seminar (August 1979).
4. Princeton University - Institute for Advanced Study, Joint Theoretical Seminar (23 September 1979).
5. Harvard University - MIT, Joint Theoretical Seminar (17 October 1979).
6. Yale University, Theoretical High-Energy Physics Seminar (23 October 1979).
7. University of Pennsylvania, High-Energy Physics Seminar (30 October 1979).
8. Annual Meeting of the American Physical Society, Chicago, Invited Talk, (21-24 January 1980).
9. State University of New York at Stony Brook, Theoretical Physics Seminar, (4 February 1980).
10. University of Connecticut, Theoretical Seminar (5 May 1980).
11. University of Maryland, Theoretical Physics Seminar (16 June 1980).
12. New York University, Theoretical Physics Seminar (13 October 1980).
13. Brown University, Physics Colloquium (20 October 1980).
14. Harvard - MIT, Joint Theoretical Physics Seminar (23 October 1980).
15. University of Washington, Seattle, gave a series of lectures (3-9 November 1980).
16. Rockefeller University, High Energy Physics Seminar (20 November 1980).
17. Invited lecturer at the "18th Polish School of Theoretical Physics" (February 1981).
18. City College of New York, High Energy Physics Seminar (April 1981).
19. Invited lecturer at the Ecole Normale Summer Institute, (August 1981), Paris, France.
20. Series of lectures at the "Workshop on Fundamental Basis of Phenomenological Models in High Energy Physics" - Institute for Theoretical Physics, Santa Barbara (September 1981-January 1982).
21. University of California, Berkeley, High Energy Theoretical Physics Seminar (23 November 1981).
22. California Institute of Technology, Theoretical Physics Seminar (1



- December 1981).
23. Brookhaven National Laboratory, High Energy Physics Seminar (April 1982).
  24. Cornell University, Theoretical Physics Seminar (May 1982).
  25. Institute for Theoretical Physics - University of Belgrade, Theoretical Physics Seminar (August 1982).
  26. New York University, Theoretical High Energy Seminar (10 November 1982).
  27. Rutgers University, Theoretical Seminar (11 November 1982).
  28. University of Pittsburgh, Theoretical Seminar (17 November 1982).
  29. Ecole Normale Supérieure, Paris, Lectures on Large N Gauge Theories (January 1983).
  30. University of Zagreb, Yugoslavia, Theoretical Seminar (February 1983).
  31. University of Nice, Theoretical Particle Physics Seminar (June 1983).
  32. Ecole Normale Supérieure, Paris, Theoretical Seminar (June 1983).
  33. Brown University, High Energy Seminar (April 1983).
  34. Invited talk at the "XXII International Conference on High Energy Physics", Leipzig (18-26 July 1984).
  35. Invited talk at the Institute D'Ete - Ecole Normale Supérieure, Paris (August 1984).
  36. University of Belgrade, Theoretical Seminar (August 1984).
  37. Schlumberger-Doll Research Center, Ridgefield, Seminar (October 1984).
  38. Cornell University, High Energy Seminar (4 December 1984).
  39. Joint Harvard - MIT Theoretical Seminar (March 1985).
  40. Invited talks at the Santa Barbara Meeting on Discrete Gravity (July 1985).
  41. Columbia University, High Energy Physics Seminar, (September 1985).
  42. Rockefeller University, Theoretical Seminar, (October 17, 1985).
  43. Yale University, Theoretical High Energy Physics Seminar, (October 22, 1985).
  44. Ecole Normal Supérieure, Paris, Theoretical Seminar (January 9, 1986).
  45. Joint Institute for Advanced Study - Princeton University Theoretical Seminar, March 1986.
  46. Special Theoretical Seminar, Institute for Advanced Study, Princeton (June 10, 1986).
  47. High Energy Physics Seminar, University of Texas, Austin (April 1986).
  48. High Energy Physics Seminar, City University of New York (May 1986).
  49. Theoretical Seminar, Institute for Theoretical Physics, Santa Barbara (October 27, 1986).
  50. Joint Brookhaven - ITP Seminar, Stony Brook (November 1986).
  51. Particle Physics Seminar, University of Pennsylvania, Philadelphia (November 1986).
  52. Particle Physics Seminar, University of North Carolina, Chapel Hill (January 27, 1987).
  53. Joint Princeton University - IAS Theoretical Seminar, Princeton (February 27, 1987).
  54. High Energy Seminar, University of Maryland, College Park (February 27,

- 1987).
55. Theoretical Physics Seminar, R. Boskovic Institute, Zagreb (June 1987).
  56. Theoretical Physics Seminar, Los Alamos National Laboratory, July 1987.
  57. Theoretical Physics Seminar, University of Tokyo, Tokyo (October 1987).
  58. High Energy Seminar, KEK National Laboratory for High Energy Physics,
  59. Tsukuba, Japan (October 1987).
  60. Lecture, Research Institute for Fundamental Physics, Kyoto, Japan (October (1987).
  61. Colloquium, Southeastern Massachusetts University (April 1988).
  62. Seminars, Institute of Physics Belgrade (August 1988).
  63. High Energy Seminar, Los Alamos National Laboratory (August 14, 1988).
  64. Colloquium, Brandeis University (May 1989).
  65. High Energy Seminar, Brandeis University (May 1989).
  66. Particle Physics Seminar, Physics Department, University of Tsukuba, Japan
  67. (February 2 & 3, 1990). Particle Physics Seminar, Tokyo Institute of Technology, Japan (February 12, 1990).
  68. Particle Physics Seminar, University of Tokyo, Japan (February 13, 1990).
  69. Particle Physics Seminar, Nara Womens College, Nara, Japan (March 2, 1990).
  70. Particle Physics Seminar, Institute of Physics, Takehara, Japan (March 1990).
  71. Particle Physics Seminar, University of Hiroshima, Japan (March 23, 1990).
  72. Particle Seminar, City College of New York (May 1990).
  73. Theory Seminar, University of California, Santa Barbara (June 1990).
  74. High Energy Seminar, University of Texas, Austin and Texas A&M University, College Station (October 1990).
  75. Theoretical Physics Seminar, Cornell University (December 5, 1990).
  77. Colloquium, Brandeis University (1991).
  78. Theoretical Seminar, Harvard University (February 1991).
  79. Theoretical Seminar, Yale University (March 1991).
  80. Theoretical Seminar, Princeton University (November 1991).
  81. High Energy Seminar, University of Pennsylvania (March 1982).
  82. High Energy Seminar, Rutgers University (July 1992).
  83. Seminar, Yukawa Institute (May 1992).
  84. Theoretical Seminar, University of Tokyo - Komaba (June 7, 1992).
  85. Theoretical Seminar, Tokyo Institute of Technology (June 20, 1992).
  86. High Energy Seminar, University of Tokyo (July 1992).
  87. Particle Physics Seminar, University of Kanazawa (July 1992).
  88. Theoretical Seminar, University of Kyoto (July 23, 1992).
  89. Joint Ecole Normale Univ. of Paris VI Theoretical Seminar, Paris, France (Sept. 28, 1993).
  90. University of Torino, Theoretical Physics Seminar, (Nov. 1993).
  91. Univ. of Milano, Theoretical Seminar, (Nov. 1993).
  92. Princeton University, High Energy Seminar (April 1994).
  93. Physics Colloquium, City University of New York, (October 1994).

94. Seminar, University of Toyko (Autust 1995).
95. Seminar, Harvard University (November 1995).
96. Theory Seminar, MIT (February 1996).
97. Particle Theory Seminar, Yale University (April 1996).
98. String Theory Seminar, Harvard University (October 1996).
99. Particle Theory Seminar, University of North Carolina, Chapel Hill (November 1996).
100. High Energy Seminar, University Texas, Austin (December 1996).
101. Theoretical Physics Seminar, City University of New York (May 1997).
102. Joint Ecole Normale Superieure - Paris VI Theoretical Seminar, Paris (November 8,1997).
103. Saclay Seminar, Paris (June 1997).
104. High Energy Physics Seminar, Case Western Reserve University (Oct 1998).
105. Colloquium, Case Western Reserve University (Oct. 1998).
106. Colloquium, Physics Department, University of Arizona (November 1999).
107. Theoretical seminar, Stanford University (Dec 1999).
108. String Theory Seminar, Harvard University (April 2000).
109. Theoretical Seminar, University of North Carolina (Dec 2000).
110. Theory Seminar, Korea Institute for Advanced Study (January 2001).
111. String Seminar, University of Tokyo (Jan. 2001).
112. Theoretical Seminar, University of California, Berkeley (March 2001).
113. Speaker at the forum "Voyages of Discovery", Inauguration of President Ruth Simmons, Brown University (October 2001).
114. Invited lecturer at the Chris Engelbrecht School of Theoretical Physics, South Africa (January 23-Feb.1).
115. Invited Speaker, "Brown Symposium for Undergraduates in the Mathematical Sciences", April 13-14, 2002. Talk on "Symmetries in Physics/Groups in Mathematics".
116. Invited Speaker, CALTEC-USC Workshop on String Field Theory (May 12-19, 2002).
117. Invited Speaker, "Black Hole Formation in AdS Space", at the KIAS Conference on D-branes and M-theory, Seoul, Korea (May, 2002).
118. String Theory Seminar, University of Tokyo (August, 2002).
119. Theory Seminar, University of Kentucky (Oct 2002).
120. Theory Seminar Univ of Cinncinati (Oct 2002).
121. Speaker at the Memorial Meeting for B. Sakita, held at CUNY, New York (Dec 14, 2002).
122. Duality Seminar at Harvard University (Feb 2003).
123. Theoretical Seminar at University of Rochester (Nov 2003).
124. String Theory Seminar, University of Tokyo (January 2004).
125. Theory Seminar "Elements of Closed String Field Theory from  $N=4$  Yang-Mills", KEK Laboratoary, Japan (January 18, 2004).
126. Theory Seminar, IKEN Institute, Tokyo Japan (January 2004).
127. Invited Speaker, Brown Symposium for Undergraduates in the

- Mathematical Sciences”, April 13-14, 2004. Talk on “String Theory: The Physics of the New Millennium”.
128. Speaker, The Eight Conference on Non-Perturbative Quantum Chromodynamics, Paris, France (June 7-11, 2004).
  129. Invited speaker, String Theory Seminar, University of Tokyo (January, 2004)
  130. Theory Seminar “ Elements of Closed String Field Theory from N=4 Yang-Mills”, KEK Laboratory, Japan (January 18, 2004).
  131. Theory Seminar, IKEN Institute, Tokyo Japan (Jan. 2004 )
  132. Invited Speaker, Brown Symposium for Undergraduates in the Mathematical Sciences, April 13-14,2002, “String Theory:The Physics of the New Millennium”.
  133. Invited talk at the Meeting, “String Theory and Cosmology”,nov 2006,McGill University,Montreal.
  134. String Theory Seminar, University of Kentucky.
  135. City University of New York, June 2006; “Matrix Model Maps in ADS /CFT”.
  136. Invited Theoretical Physics Seminar, ”Rudjer Boskovic Institute”,Croatia, September 2006.
  137. Invited talk , KFK Institute of the Hungarian Academy of Science, Budapest, June 6, 2007.
  138. Invited talk , Kyoto University, Japan, Dec 20,2007.
  139. String Theory Seminar, University of Kentucky, April 2007.
  140. Theory Seminar,University of Tokyo, Komaba, January 2007; “Matrix Model Maps in ADS /CFT ”.
  141. Theoretical Physics Seminar, ”Okayama Institute for Quantum Physics”,Japan, December 19,2007.
  142. Theoretical Physics Seminar, University of Buenos Aires, Jan 10,2008.
  143. String Theory Seminar, University of Sao Paulo, Jan. 2008.
  144. Theoretical Seminar, University of Cergy, France, March 2008.
  145. Invited talk, ”Solitons and ADS Strings”, University of Tokyo, Japan, Dec 12,2008.
  146. String Theory Seminar,” Moduli Space of ADS Strings” University of Michigan, November 2008.
  147. Theoretical Physics Seminar, DESY, Hamburg, October,2008.
  148. University of Tokyo, Theoretical Physics Seminar , Institute of Physics, Dec.22,2010.
  149. Harvard University, Theoretical Physics Seminar, Oct 7 2010. Title;”Collective Field Mapping of Anti de Sitter Space-Time”
  150. Massachusetts Institute of Technology,String Theory Seminar,.
  151. Joint Princeton University/ and nstitute for Advanced Physics Seminar., October 25,2010
  152. IPMU, Institute for Physics and Mathematics of the Universe, Tokyo University):
  153. Joint Seminar on Gravitation and Cosmology, May 18, 2010.Title: ”AdS Strings : Solutions and Dynamics of Moduli”

154. University of Kentucky, Theoretical Physics Seminar, April 2011  
 155. Imperial College, London, Theoretical Seminar, March, 2011  
 Title; "Construction of Higher Spin Gravity from QFT"  
 156. Ecole Normale Supérieure, Paris, Seminar, August, 2011.  
 157. City University of NY, Theoretical Physics Seminar, Oct 17 2010.  
 Title: "Collective Field Mapping of Anti de Sitter Space-Time"
- 158.

## 11. Service:

- Freshman Advisor (1994) (8 students)
- Freshman Advisor (1995) (8 students)
- Sophomore Advisor (1996) (5 students)
- High Energy Theoretical Seminar, 1979-89
- Member, Colloquium Committee, 1980-82
- Member, Graduate Curriculum Committee, 1979-82
- Chairman, Graduate Curriculum Committee, 1982-83, 1983-84, 1984-85,
- Graduate Admissions Committee, 1982-83, 1983-84
- Qualifying Exam Committee, 1984-85, 1996-97
- Chairman, Library Committee, 1986-1987, 1991-1992
- Chairman, Graduate Curriculum Committee, 1987-present
- Chairman, Colloquium Committee, 1994-1995, 1995-1996
- Chairman, Letter Writing Committee for promotion of Robert H. Brandenberger
- External Reviewer, Promotion of I. Klebanov (Princeton University)
- Chairman, High Energy Theory Search Committee, 1996-1997
- Chairman, Qualifying Committee, 1997-1998
- Member, Promotion Committee for Prof. G. Zhao
- Committee for promotion of Brad Marston (1998)
- Reviewer for Department of Energy and the National Science Foundation. (1998-99)
- Letter Writing Committee for the Promotions at the Tata Institute, Bombay (1998-99), Ohio State University (2001), Lehman College of CUNY (2001).
- External Examiner, Research Grants at The University of Witwatersrand, Johannesburg, South Africa (1998-99)
- During Jan-Feb 2002 Professor Jevicki will join Prof. L. Susskind (Stanford), Prof. J. Dorfan (Director, SLAC), Prof. David Gross (Director, ITP) in giving a series of Lectures to improve Physics and Education in South Africa.
- Chairman, Letter Writing Committee for Promotion of Prof. David Lowe (2002)
- Member, Letter Writing Committee for Prof. Greg Landsberg (2002)
- Principal Investigator, DOE grant, Task A (2002/03)
- Reviewer, Promotion to Full Professorship of Dr. Dimitra Karabali (Lehman College of CUNY) (2003)
- Senior Thesis adviser to: Rachel Rosen, Tyler Wellman, A. Morey,

- Gregory Baltazar, Adam Avarkian and B.Mares (2003)
- PhD Thesis Advisor to: Sera Cremonini, Aristos Donos, Yeuan-Ming Sheu, Ines Aniceto and Donghoon Lee (2003)
  - Undergraduate Concentration Advisor
  - Member, Letter Writing Committee for Prof. Rick Gaitskell (2004)
  - Principal Investigator, DOE grant, Task A (2003-2004)
  - Reviewer for Department of Energy and the National Science Foundation (2004)
  - Reviewer, Promotion to Full Professorship of G. Siopsis, University of Tennessee (2004)
  - Senior Thesis Advisor to: Ben Mares, Gregory Baltazar, Suz Tolwinsky, Stephen Leichenauer and Eric Perlmutter (2004)
  - PhD Thesis Advisor to: Sera Cremonini, Aristos Donos, Yeuan-Ming Sheu, Ines Aniceto and Donghoon Lee (2004)
  - Scientific Referee for: Nucl. Phys. B (North Holland) Physical Review and Phys. Rev. Letters (APS) International Journal of Modern Physics (World Scientific)
  - Reviewer: Research Grants (DOE and NSF)
  - Reviewer: Outstanding Investigatorships (NSF)
  - Reviewer: Department of Energy and the National Science Foundation
  - Undergraduate Concentration Advisor
  - Letter Writing Committee for Prof. Rick Gaitskell, David Lowe
  - Principal Investigator, DOE Grant, Task A
  - Reviewer for Department of Energy and the National Science Foundation
  - Senior Thesis Advisor: Last decade: Ben Mares, Gregory Baltazar, Suz Tolwinsky,
  - Stephen Leichenauer and Eric Perlmutter
  - PhD Thesis Advisor to: Last decade: Sera Cremonini, Aristos Donos, Yeuan-Ming Sheu, Ines Aniceto, Kewang Jin, Qubin Ye

## **12. Honors; Research Grants:**

- Prize, International Science Olympiad, Praha, 1969.
- Alfred P. Sloan Foundation Fellow, 1980-84.
- Seven research papers are reprinted in various collections of papers.
- Awarded a Joint US-Japan Collaborative Research Grant (INT-9217875),
- “Investigations in String Theory and Quantum Gravity” with Univ. of Tokyo, Japan, National Science Foundation, 1993-95.
- Awarded a Joint US-France collaborative Research Grant (INT-9217470), “Symmetries of String Theory and Integrable Systems”, National Science Foundation, 1992-96.
- Awarded, Fellowship by the Japanese Society for the Promotion of Science. Principal Investigator, DOE High Energy Research Grant (Task A) 1980-present.

## 13. Teaching

- Special topics in Field Theory, Physics 262 (1979-80)
- Classical Theoretical Physics I and II.  
(this course was introduced and designed by Prof. Jevicki)
- Physics 261A and Physics 262A (1980-82 and Semester II 1984)
- Quantum Field Theory I and II
- Physics 230 and Physics 232 (1982-83)
- Mathematical Methods in Physics II (1983-84)
- Quantum Field Theory II (1984-85) Semester I
- Advanced Theoretical Mechanics, Physics 50 (1984-85) Semester II
- Elementary Particle Physics, Physics 220, Semester II, (1986-87)
- Quantum Field Theory II, Physics 7, Semester II (1987-88)
- Group Theory, Semester II (1987-88)
- Advanced Quantum Mechanics, Physics 207, Semester I (1988-89)
- Group Theory, Physics 234/36.
- Advanced Quantum Mechanics, Semester I (1989-90).
- Particle Physics, Semester II (1989-90)
- Advanced Quantum Mechanics (1990-91)
- Group Theory, Physics 234/36 (1990-91)
- Physics 204, Semester II (1993-94)
- Physics 7: Analytical Mechanics (1994-96) (55 students)
- Physics 207 Advanced Quantum Mechanics (1994-96) (15 students)
- Physics 7: Analytical Mechanics (1995-96) (55 students)
- Physics 230: Quantum Field Theory (1995-96) (10 students)
- Physics 205: Quantum Mechanics I (1996-97) (20 students)
- Physics 206: Quantum Mechanics II (1996-97)
- Physics 205: Quantum Mechanics I (1996-97) (20 students)
- Physics 230: Quantum Field Theory I (1997-98) (8 students)
- Physics 232: Quantum Field Theory II (1997-98) (8 students)
- Physics 50: Advanced Classical Mechanics (1998-99) (29 students)
- Physics 232: Quantum Field Theory II (1999-2000) (9 students)
- Physics 232: Quantum Field Theory II (2000-2001)(5 students)
- Physics 142: Modern Physics B (2000-2001)(21 students)
- Physics 141: Modern Physics A (Semester I, 2001-2002, 17 students)
- Physics 291: Reading Course in Theoretical Physics for Advanced Graduate Students (Sera Cremonini)
- Physics 262 (sect 02): Special Topics in Physics:Introduction to Strings and Extra
- Dimensions (Spring 2002, 17 students).
- Physics 172: Methods of Mathematical Physics (Semester II, 2003)
- Physics 12: Beautiful Theories of Physics (Semester I, 2003)
- Physics 199: String Theory for undergraduates (Semester I 2006/2007)

- Physics 207:Advanced Quantum Mechanics (Semester I 2007/2008)
- Physics 8 : Introduction to Quantum Mechanics and Relativity (Semester II:2007/2008)
- (Semester II 2008/2009)
- Physics 207:Advanced Quantum Mechanics (Semester I 2007/2008)(2009/2010)
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## 14. Service

- Undergraduate Concentration Advisor.
- Member, Theoretical Astrophysics/Cosmology Search Committee .
- Member, Physics Department Curriculum Committee .
- Principal Investigator, DOE grant, Task A
- Reviewer for Department of Energy and the National Science Foundation
- Professor Jevicki organized ( together with Gang Xiao and Chung-I Tan ) the Symposium "50 Years of BCS Theory of Superconductivity", April 12-13.2007. This symposium brought to Brown four Nobel Laureate speakers and a number of distinguished researchers in the field.
- Ph.D. Thesis : Omar Karim, Joao P. Rodrigues, Barry E.Fridling, Zvonimir Hlousek, Aleksander Bogojevic, Kresimir Demeterfi, B. Urosevic, Julian Lee and Mihail Mihailescu. Mihailescu was awarded the Jaukowsky Prize for best PhD Thesis in Science (June 2000), sera Cremonini (2006) , Aristomenis Donos(2007).
- Recent Senior Thesis: M. Pillsbery (2000), Donald Engel (2001), Jesse Thaler (2002), Appker Finalist Award of the American Physical Society , Arthur Coviello (2002) , Tiferet Levine (April 2002), Andres Morey (Dec 2002). Ben Mares, Gregoary Baltazar, Suz Tolwinsky, Stephen Leichenauer
- PhD Advisor: Ines Aniceto , Kewang Jin , Qibin Ye