Light-cone and String-bit Articles

Charles B. Thorn

12. Lorentz Covariance and the Physical States in Dual Resonance Models, (with P. Goddard and C. Rebbi), Nuovo Cimento, **12A**, 425-450 (1972).

13. Quantum Dynamics of a Massless Relativistic String, (with P. Goddard, J. Goldstone, and C. Rebbi), Nuclear Physics **B56**, 109-135 (1973).

22. Lattice Approach to String Theory, (with Roscoe Giles), Phys. Rev. **D16**, 366-386 (1977).

23. On the Derivation of Dual Models from Field Theory, Phys. Letters, **70B**, 85-87 (1977).

24. On the Derivation of Dual Models from Field Theory II, Phys. Rev. **D17**, 1073-1084 (1978).

25. String Representation for a Field Theory with Internal Symmetry, (with Roscoe Giles and Larry McLerran), Phys. Rev. D17, 2058-2073 (1978).

26. The Spectrum of QCD in the Limit of an Infinite Number of Colors at Fixed Coupling, (with Richard Brower and Roscoe Giles), Phys. Rev. **D18**, 484-500 (1978).

27. Quark Confinement in the Infinite Momentum Frame, Phys. Rev. **D19**, 639-650 (1979).

28. Fock-Space Description of the $1/N_c$ Expansion of Quantum Chromodynamics, Phys. Rev. **D20**, 1435-1441 (1979).

29. Asymptotic Freedom in the Infinite Momentum Frame, Phys. Rev. **D20**, 1934-1940 (1979).

43. Theory of Interacting Relativistic Strings (UFTP-85-8), Nuclear Physics, **B263**, 493-556 (1986).

44. Equivalence of the Light-Cone Formulation and the Gauge-Invariant Formulation of String Dynamics (SLAC-PUB-3801), (with M. Peskin), Nuclear Physics **B269** (1986) 509-.

45. Symmetry Patterns in the Mass Spectra of Dual String Models, (with T. Curtright), Nuclear Physics **B274** (1986) 520-558.

46. Spin Content of the Bosonic String, (with J. Goldstone and T. Curtright), UFTP-86-3, Phys. Letters **B175** (1986) 47-52.

49. Spin Content of String Models, (with T. Curtright and G. Ghandour), UFTP-86-10, Physics Letters **B182** (1986) 45.

50. A Detailed Study of the Physical State Conditions in Covariantly Quantized String Theories, Nuclear Physics **B286** (1987) 61-77.

65. Calculating the Rest Tension for a Polymer of String Bits, UFIFT-HEP-94-8, eprint hep-th/9407169, *Phys. Rev.* **D51** (1995) 647-664.

66. String Bit Models for Superstring (with O. Bergman), UFIFT-HEP-95-8, eprint hep-th/9506125, *Phys. Rev.* **D52** (1995) 5980-5996.

67. Super-Galilei Invariant Field Theories in 2+1 Dimensions (with O. Bergman), UFIFT-HEP-95-12, eprint hep-th/9507007, *Phys. Rev.* **D52** (1995) 5997-6007.

68. Universality and Clustering in 1+1 Dimensional Superstring-Bit Models (with O. Bergman), UFIFT-HEP-95-31, eprint hep-th/9512107, Phys. Rev. Lett. **76** (1996) 2214-22117.

69. The Size of a Polymer of String-Bits: A Numerical Investigation (with O. Bergman), UFIFT-HEP-97-04, eprint hep-th/9702068, Nuclear Physics **B502** (1997) 309-324.

70. Supersymmetric Quantum Mechanics for String-Bits, UFIFT-HEP-97-20, eprint hep-th/9707048, Physical Review **D56** (1997) 6619-6628.

71. Quantum Newtonian Dynamics on a Light Front, UFIFT-HEP-98-16, hep-th/9807151, Physical Review **D59** (1999) 025005.

72. Bag Model for a Link in a Closed Gluonic Chain, UFIFT-HEP-98-26, hep-th/9810066, Physical Review **D59** (1999) 116011.

73. Defining the Force between Separated Sources on a Light Front (with J. Rozowsky), UFIFT-HEP-98-26, hep-th/9810066, Physical Review **D60** (1999) 045001.

Lectures and Invited Talks:

3. (a) "Dual Models and Strings: The Critical Dimension", (b) "Duality and Finite Size Effects in Six Vertex Models", invited lectures given at the Les Houches Winter School on "Common Trends in Particle and Condensed Matter Physics", February, 1980. Physics Reports 67, 163 (1980).

6. "Introduction to the Theory of Relativistic Strings", invited lectures given at the Workshop on Unified String Theories held at the University of California, Santa Barbara, July 29-August 16, 1985; published in *Unified String Theories*, M. Green and D. Gross, Eds., World Scientific (1986), pp. 5-45.

7. "The Relation Between Light Cone and Covariant Methods in String Theory" presented to the workshop on "Superstring Theories and the Mathematical Structure of Infinite-Dimensional Lie Algebras" of the Santa Fe Institute, November 8-10, 1985.

11. "Lectures on String Theory", Three lectures presented at the Spring School on Superstrings held at the ICTP, Trieste, Italy, April 1988, published in *Superstrings '88*, Proc. of the Trieste Spring School, M. Green, M. Grisaru, R. Iengo, and A. Strominger, Eds., World Scientific (1988).

12. "Lattice Strings", invited lecture at the workshop *Strings '88*, University of Maryland, May 1988; published in *Strings '88*, S. J. Gates, Jr., C. R. Preitschopf, and W. Siegel, Eds.; World Scientific (1989).

15. "Reformulating String Theory with the $1/N_c$ Expansion", invited talk at the First International A. D. Sakharov Conference on Physics, P. N. Lebedev Institute, Moscow, May 27-31, 1991, published in *Sakharov Memorial Lectures in Physics*, L. V. Keldysh and V. Ya. Feinberg, Eds., Nova Science Publishers Inc. (1992), pp. 447-454, eprint (with postscript) hep-th/9405069.

16. "The Relativistic String as a Composite Structure", invited lecture to a Symposium in Honor of Kenneth Johnson, held at MIT, Cambridge, Mass., 2 November 1991.

18. "String Bits", invited talk at Rutgers University, 3 May 1994.

19. "Formulating String Theory on the Light Cone," invited talk to the 5th Workshop on Light-cone QCD held at the Telluride Summer Research Center in Telluride, CO, 14—26 August 1995.

20. "Substructure of String," invited talk to the *Strings 96* conference, organized by the Institute for Theoretical Physics at the University of California, Santa Barbara, 15—20 July 1996, hep-th/9607204.

22. "Newtonian Dynamics in an Infinite Momentum Frame," invited talk to the 29th International Conference on High Energy Physics, 23-29 July 1998, Vancouver, B.C., Canada, published in the Proceedings, A. Astbury, D. Axen, and J. Robinson, Eds, World Scientific (1999), pp. 1763-1767.

23. "QCD Fishnets Revisited," invited talk to the Workshop on Non-Perturbative Particle Dynamics, held at the Aspen Center for Physics, Aspen, Colorado, 10-16 January 1999.

24. "Fields and String on a Light Front"; "Discretizing P^+: Exploiting the Newtonian Analogy in Light-front Dynamics"; "Summing Planar Graphs on a Discrete

Light Front"; "Holography, Gravity, and the QCD/String Connection". Four invited lectures presented to the Asia Pacific Center for Theoretical Physics, and to Seoul National Uiversity, 16-29 May 1999.