

## CURRICULUM VITAE

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Excellence in Undergraduate Teaching  
Dept. of Physics and Astronomy, University of Rochester, 1987.  
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Dept. of Physics and Astronomy, University of Rochester, 1990.  
Edward Peck Curtis Award for Excellence in Undergraduate Teaching  
University of Rochester, 1991.  
Excellence in Undergraduate Teaching  
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Outstanding Junior Investigator (DOE), 1983–1989.  
Head, High Energy Theory Group, 1990–1995.  
Fulbright Fellowship, 1997–1998.  
Fellow, American Physical Society, 2002.  
Rockefeller Foundation Award (for residency in Bellagio), 2004.  
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SCHOLARSHIPS: National Merit Scholar 1968–1972 (India)  
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PROFESSIONAL

POSITIONS: 1977–1979, City College of New York, Research Associate.  
1979–1981, University of Maryland, Research Associate.  
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1993– , University of Rochester, Professor of Physics.  
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## PUBLICATIONS

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2. Gauge internal symmetry in extended supergravity, A. Das and D. Z. Freedman, Nuclear Physics **B120**, 221 (1977).
3. SO(4) invariant extended supergravity, A. Das, Physical Review **D15**, 2805 (1977).
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10. Lattice formulation of general relativity, A. Das, M. Kaku and P. Townsend, Physics Letters **81B**, 11 (1979).
11. Observations on the Gribov ambiguity in general relativity in the Coulomb gauge, A. Das and M. Kaku, Nuovo Cimento **50B**, 303 (1979).
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13. Asymptotically free, one-coupling-constant, one-mass-scale SU(5) model, N. P. Chang, A. Das and J. Perez-Mercader, Physical Review **D22**, 1429 (1980).
14. Proton stability in an asymptotically free SU(5) model, N. P. Chang, A. Das and J. Perez-Mercader, Physics Letters **93B**, 137 (1980).
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18. Nontrivial quadratic gauge fixing in Yang Mills theories, A. Das, Pramana **16**, 409 (1981).
19. Decoupling and low energy BRS, N. P. Chang, A. Das, D. X. Li, D. C. Xian, and X. J. Zhou, Physical Review **D25**, 1630 (1982).
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22. A new test for spontaneous breakdown of supersymmetry, C. M. Bender, F. Cooper and A. Das, Physical Review **D28**, 1473 (1983).
23. Continuum limit of supersymmetric field theories on a lattice, C. M. Bender, F. Cooper and A. Das, Physical Review Letters **50**, 397 (1983).
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29. The Chiral Schwinger Model, A. Das, Physical Review Letters **55**, 2126 (1985).
30. Path integral solubility of two dimensional models, A. Das and V. S. Mathur, Physical Review **D33**, 489 (1986).
31. Algebra of charges in the supersymmetric nonlinear  $\sigma$  model, J. Barcelos-Neto, A. Das and J. Maharana, Zeitschrift für Physik **C30**, 401 (1986).
32. Dirac quantization in superspace, J. Barcelos-Neto and A. Das, Physical Review **D33**, 2863 (1986).

33. Path integrals and the solution of Schwinger model in curved space-time, J. Barcelos-Neto and A. Das, Physical Review **D33**, 2262 (1986).
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113. Thermal effects on catalysis by a magnetic field, A. Das and M. Hott, Physical Review **D53**, 2252 (1996).
114. Gelfand-Dikii brackets for nonstandard supersymmetric systems, A. Das and S. Panda, Modern Physics Letters **A11**, 723 (1996).
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120. Higher dimensional SUSY quantum mechanics, A. Das, S. Okubo and S. Pernice, Modern Physics Letters **A12**, 581 (1997).
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137. Derivative expansion and large gauge invariance at finite temperature, J. Barcelos-Neto and A. Das, Physical Review **D58**, 085022 (1998).
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## COURSES TAUGHT

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- PHY218 - Electricity and Magnetism II (Undergraduate)
- PHY238 - Quantum mechanics I (Undergraduate)
- PHY247 - Quantum mechanics II (Undergraduate)
- PHY254 - Nuclear and particle physics (Undergraduate)
- PHY407 - Quantum mechanics I (Graduate)
- PHY408 - Quantum mechanics II (Graduate)
- PHY413 - Gravitation (Graduate)
- PHY415 - Electromagnetic theory I (Graduate)
- PHY510 - Relativistic quantum mechanics (Graduate)
- PHY511 - Field theory (Graduate)
- PHY512 - Renormalization and renormalization group (Graduate)
- PHY516 - Electromagnetic theory II (Graduate)
- PHY581 - Particle physics I (Graduate)
- PHY582 - Particle physics II (Graduate)
- PHY584 - Special topics in particle physics (Graduate)
- PHY584 - Integrable models (Graduate)
- PHY593 - Advanced quantum field theory (Graduate)

## **Ph.D. THESIS:**

1. H. A. Lim (8/86)  
“Studies on strong coupling approximations in a class of supersymmetric field theories and dynamical symmetry breaking a la Nambu-Jona-Lasinio”.
2. Y. Kwon (4/87)  
“Studies on strings and anomalies”.
3. A. Karev (5/87)  
“Studies in the derivative expansion and finite temperature quantum field theory”.
4. W. Scherer (7/88)  
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6. S. Roy (4/91)  
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7. W. J. Huang (5/93)  
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9. I. Horvath (9/94)  
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10. S. Perez (May 2003)  
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11. A. Constandache (May 2004)  
“Topics in integrable models”.
12. A. Melikyan (Sept 2005)  
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13. L. Greenwood (Aug 2015)

## **UNDERGRADUATE THESIS:**

1. J. Pun (5/90)  
“Supersymmetry and coherent states”.