

SUBJECTS REFERENCE:

- A. Static properties of hadrons and their decays.
- B. Diffraction scattering and diffractive dissociation.
- C. Photoproduction and vector dominance.
- D. Threshold enhancement.
- E. Structure functions.
- F. Quark cascade model and hadronisation.
- G. Grand unification, Supersymmetry, Supergravity and Superstrings.
- H. Composite particles and bound states.
 - I. Schwinger's action principle.
- J. Phase transitions.
- K. Coherent states.
- L. Group theory applications.
- M. Thermal field theory.
- N. Nuclear theory.
- O. Astrophysics.
- P. Additive Quark Model
- Q. Quantum Mechanics.

**Publications while in Institute of Physics with subject reference,
along with some earlier papers**

1996:

- J K 1.** Vacuum structure in QCD with quark and gluon condensates, A. Mishra, H. Mishra, Varun Sheel, S.P. Misra and P.K. Panda, *Int. J. Mod. Phys. E* 5, 93 (1996).
- A J K 2.** Vacuum structure of chiral symmetry breaking, S.P. Misra, *Talk at Saha Institute of Nuclear Physics, Calcutta, April 1995 for haridasfest*, *Ind. J. Phys.* 70A, 355 (1996).

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- A J K 3.** Vacuum structure of chiral symmetry breaking and QCD, S.P. Misra, *Talk in Workshop on Quark Gluon Plasam and Phase Transitions in early universe*, Puri, December 1995, to appear in the Proceedings.

1994:

- H K 4.** A variational approach to bound states in quantum field theory, H. Mishra and S.P. Misra, *Z. Phys. C* 61, 97 (1994).
- J N O 5.** Gluon condensates, quark matter equation of state and quark stars, A. Mishra, H. Mishra, P.K. Panda and S.P. Misra, *Z. Phys. C* 63, 681 (1994).

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- H J K 8.** Chiral symmetry breaking and pion wave function, H. Mishra and S.P. Misra, *Phys. Rev. D* 48, 5376 (1993).

A J K 9. Gluon Condensates, Chiral Symmetry Breaking and Pion Wave Function, A. Mishra and S.P. Misra, Z. Phys. C 58, 325 (1993).

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H K N 13. Pion dressing of nucleon and nuclear forces: a nonperturbative approach, P.K. Panda, R. Sahu and S.P. Misra, Phys. Rev C45, 2079-2093 (1992).

G J K 14. Phase transitions in quantum field theory, S.P. Misra, Invited talk in Symposium on Quantum Field Theory and Statistical Mechanics, Calcutta, 1992 IP/BBSR/92-60, hep-ph/9212293.

BOOK 15. *Introduction to Supersymmetry and Supergravity*, S.P. Misra, (Wiley Eastern, 1992; John Wiley, 1992).

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J K 17. A nonperturbative variational approach to vacuum structure in QCD, A. Mishra, H. Mishra, S.P. Misra and S.N. Nayak, Pramana (J. of Phys.) 37, 59 (1991).

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J K N 18. Nuclear matter with constituent meson quanta, A. Mishra, H. Mishra and S.P. Misra, Int. J. Mod. Phys. A5, 3391 (1990).

G J K M 19. 1+1 dimensional supersymmetry at finite temperature: a variational approach, A. Mishra, H. Mishra, S.P. Misra and S.N. Nayak, Phys. Lett. 251B, 441 (1990).

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G 20. Light Dirac neutrino in a superstring inspired model, S. Mishra and S.P. Misra, Phys. Lett. 217B, 66 (1989).

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J H K 25. Quantum magnetic monopoles, H. Mishra and S.P. Misra, Ind. J. Phys. 62A, 420 (1988).

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- G L 28.** Light Dirac neutrino in left-right symmetric models, S. Mishra, S.P. Misra, S. Panda and U. Sarkar, Phys. Rev. D35, 975 (1987).
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- H 30.** Relativistic effects on meson spectra, S.P. Misra, A.R. Panda and S. Naik, Pramana (J. of Phys.) 28, 137 (1987).
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- H 33** Field theoretic model of composite particles, a variational approach, S.P. Misra and S.Panda, Pramana (J. of Phys.),27, 523 (1986).

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- G L 35.** Grand unification and supergravity in SO(10), S. Mahapatra and S.P. Misra, Phys. Rev. D31, 656 (1985).
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- G 37.** Generation of grand unification hierarchies due to supergravity, S. Mishra and S.P. Misra, Phys. Rev. D32, 3043 (1985).

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- G 38.** Two neutral Z bosons in an SO(10) supergravity model, S. Mahapatra, S. Mishra and S.P. Misra, Phys. Rev. D30, 2019 (1984).

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- G 39.** Hydrogen antihydrogen oscillations - signature of intermediate scales in GUTs, U. Sarkar, S.P. Misra and M.K. Parida, Phys. Lett. 120B, 124 (1983).
- F 40.** Local charge compensation in the quark-cascade jet- production model, S.P. Misra and B.K. Parida, Pramana, 20, 375 (1983).
- G 41.** $n - \bar{n}$ oscillations, $H - \bar{H}$ oscillations and double proton decay - Are they suppressed by wave function effects? S.P. Misra and U. Sarkar, Phys. Rev. D28, 249 (1983).
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- B 45.** Exclusive neutrino production cross-sections in a quark model, K. Biswal and S.P. Misra, Phys. Rev. D25, 1204 (1982).
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- D 48.** Threshold production of vector mesons in a composite model in photon-photon collisions, K. Biswal and S.P. Misra, Phys. Rev. D26, 3020 (1982).

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- A H 59.** Field theoretic model of composite hadrons I, S.P. Misra, Phys. Rev. D18, 1661 (1978).

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