



(Self-portrait, 8" × 11", Red and white chalk on paper, 2011)

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List of Publications and Preprints

(In reverse chronological order)

1. Poincare-Cartan form for gauge fields in curved background.
arxiv : 1105.2696v1, 2011
2. Poincare-Cartan form for scalar fields in curved background.
arxiv : 1104.5095v1, 2011
3. Causality and Peierls bracket in classical mechanics.
arxiv : 1002.3092v1, 2010
4. Spacetime, Geometry and Gravitation;
Vol. 56, Progress in Mathematical Physics, Birkhauser, Basel, 2009
Texts and Readings in the Physical Sciences-8, Hindustan Book Agency,
New Delhi, 2009
5. Lagrangian in quantum mechanics is a connection 1-form.
(with Pravabati Chingangbam)
quant-ph/0301133, 2003
6. Pseudoforces in quantum mechanics
(with Pravabati Chingangbam)
Physical Review **A64**, 042107, 2001
7. Gauge conditions for an abelian Chern-Simons system consistent with
equations of motion.
(with Anupama Mehra, Krishnendu Dasgupta, M. Sami)
Nuovo Cimento B114,861,1999
8. Gauge conditions for non-abelian Chern-Simons system consistent with
equations of motion.
(with Anupama Mehra, Krishnendu Dasgupta, M. Sami)
Nuovo Cimento B114,1219,1999
9. Hamiltonian path integral quantization in polar coordinates.
(with A. K. Kapoor)
quant-ph/9804037, 1998
10. Schrodinger equation for Lagrangian path integral with scaling of local
time.
(with A. K. Kapoor)
hep-th/9507081, 1995
11. Hamiltonian path integral quantization in arbitrary coordinates and exact
path integration.
(with A. K. Kapoor)
hep-th/9501014, 1995

12. Local scaling of time in Hamiltonian path integration.
(with A.K. Kapoor)
hep-th/9501013, 1995
13. Symbolic computation of Wigner-Kirkwood expansion to $O(\hbar^8)$. Computer Physics Communications **69**, 235, 1992
14. Local Scaling of time in canonical path integral and quantization in arbitrary coordinates.
(with A. K. Kapoor)
Waseda University Preprint WU-HEP-89-1, 1989
15. Path Integrals in arbitrary coordinates and reparametrization of time.
(with A.K. Kapoor)
Hyderabad University Preprint HUTP-86/5, 1986
16. Quantization through canonically covariant phase space amplitudes.
(with A.K. Kapoor)
Hyderabad University Preprint HUTP-84/1, 1984
17. Portrait of a Genius : Review of *Subtle is the Lord...* by Abraham Pais
The Book Review, Vol VII, No. 5, 1983
18. Two theorems in classical Mechanics
American Journal of Physics, **50**, 351, 1982
19. N/D analysis of rho-pi scattering in the 1+ channel in Bardacki-Halpern type models.
(with H. S. Mani)
Physical Review **D19**, 962,1979
20. *-product representation of path integrals.
Physical Review **D20**, 414, 1979
21. Gribov ambiguities in the U-gauge.
(with A. P. Balachandran, H. S. Mani, R. Ramachandran)
Physical Review Letters **40**, 988,1978