

CURRICULUM VITAE

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4. Education:

(i) B.Sc. in Physics (Hons.) from the University of Calcutta in 1992.

(ii) M.Sc. in Physics from the University of Calcutta in 1994.

(iii) Post-M.Sc. Associateship Course in Physics at Saha Institute of Nuclear Physics, Kolkata completed in 1995.

(iv) Ph.D. in Physics from Saha Institute of Nuclear Physics, Kolkata and Jadavpur University, Kolkata: thesis submitted in April 2002, admitted to degree in May 2003.

5. Past Positions:

(i) Post Doctoral Fellow, Institute of Mathematical Sciences, Chennai, from June, 2002 to October, 2004.

(ii) Research Associate, Theory Group, Saha Institute of Nuclear Physics, Kolkata from November, 2004 to October, 2006.

(iii) Post Doctoral Fellow, Department of Physics, IIT Kanpur from November, 2006 to October, 2008.

(iv) Research Associate, Department of Theoretical Physics, Indian Association for the Cultivation of Science, Kolkata from December, 2008 to July, 2009.

6. Current Position:

Assistant Professor, Department of Physics, University of Calcutta, from 22nd July, 2009 to the present.

LIST OF PUBLICATIONS

1. I. Mitra, A. DasGupta, and B. Dutta-Roy, “Regularization and renormalization in scattering from Dirac delta potentials,” *Am.J.Phys.* 66 (1998) 1101.
2. I. Mitra, “Gauge independence of limiting cases of one-loop electron dispersion relation in high-temperature QED,” *Phys.Rev.* D62 (2000) 045023, hep-ph/9905362.
3. I. Mitra, J. F. Nieves and P. B. Pal, “Gravitational couplings of charged leptons in a medium,” *Phys.Rev.* D64 (2001) 085004, hep-ph/0104248.
4. E. Harikumar, I. Mitra and H. S. Sharatchandra, “Topological field patterns of the Yang-Mills theory,” *Phys.Lett.* B557 (2003) 297, hep-th/0212234.
5. E. Harikumar, I. Mitra and H. S. Sharatchandra, “Half-monopoles and half-vortices in the Yang-Mills theory,” *Phys.Lett.* B557 (2003) 303, hep-th/0301045.
6. I. Mitra, R. Ratabole and H. S. Sharatchandra, “Infrared behaviour of massless QED in space-time dimensions $2 < d < 4$,” *Phys.Lett.* B611 (2005) 289, hep-th/0410120.
7. I. Mitra, R. Ratabole and H. S. Sharatchandra, “Gauge dependence of the infrared behaviour of massless QED₃,” *Phys.Lett.* B634 (2006) 557, hep-th/0510055.
8. I. Mitra, R. Ratabole and H. S. Sharatchandra, “Gauge-invariant dressed fermion propagator in massless QED₃,” *Phys.Lett.* B636 (2006) 68, hep-th/0510057.
9. I. Mitra, R. Ratabole and H. S. Sharatchandra, “Instability in scalar channel of fermion-antifermion scattering amplitude in massless QED₃ and anomalous dimensions of composite operators,” *Mod.Phys.Lett.* A22 (2007) 297, hep-th/0601058.
10. B. Jain, I. Mitra and H. S. Sharatchandra, “Criterion for dynamical chiral symmetry breaking,” *Phys.Rev.* D76 (2007) 025020, hep-th/0703050.

11. I. Mitra, “On conformal invariant integrals involving spin one-half and spin-one particles,” *J.Phys. A*41 (2008) 315401, arXiv:0803.2630 [hep-th].
12. I. Mitra, “Three-point Green function of massless QED in position space to lowest order,” *J.Phys. A*42 (2009) 035404, arXiv:0808.2448 [hep-th].
13. I. Mitra, “External leg amputation in conformal invariant three-point function,” *Eur.Phys.J. C*71 (2011) 1621, arXiv:0907.1769 [hep-th].
14. C. Chatterjee, E. Harikumar, M. Mathur, I. Mitra and H. S. Sharatchandra, “Line discontinuities, local action with both the field and its dual, and spin from no spin in two-dimensional scalar theory,” *Int.J.Mod.Phys. A*28 (2013) 1350003, arXiv:1111.5218 [hep-th].
15. C. Chatterjee, I. Mitra and H. S. Sharatchandra, “Two-potential theory of electric and magnetic charges via duality transformation,” *Phys.Lett. B*710 (2012) 223, arXiv:1111.6064 [hep-th].
16. I. Mitra and H. S. Sharatchandra, “Dreibein as prepotential for three-dimensional Yang-Mills theory,” *Adv.High Energy Phys.* 2017 (2017) 6369505, arXiv:1307.0989 [hep-th].
17. A. Basu, P. Majumdar and I. Mitra, “Gauge-invariant matter field actions from an iterative Noether coupling,” *Phys.Rev. D*98 (2018) 105018, arXiv:1711.05608 [physics.gen-ph].