



Rajarshi Ray

CURRICULUM VITAE

Personal Profile

Name: Rajarshi Ray
Born / Sex: October 24, 1973 / Male
Nationality: Indian

Professional Profile

Designation: Associate Professor
Institute: BOSE INSTITUTE
Department: Department of Physics and Center for
Astroparticle Physics & Space Science,
EN-80, Sector 5, Bidhan Nagar,
Kolkata, WB 700091, India
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Academic Profile

Areas of Research:

Phase Transition, Quark Gluon Plasma, Topological Defects,
Lattice field theory, Stochastic Process, Bio-molecular interactions.

Professional Experience:

Oct. 2012 – Present: Associate Professor
Bose Institute, Kolkata, India.
Oct. 2008 – Oct. 2012: Assistant Professor
Bose Institute, Kolkata, India.
Jan. 2008 – Oct. 2008: Visiting Fellow (Post-doctoral)
National Center for Biotechnology Information, Bethesda, USA.
Apr. 2005 – Dec. 2007: Research Associate-II
Saha Institute of Nuclear Physics, Kolkata, India.
Jan. 2003 – Mar. 2005: Visiting Fellow (Post-doctoral)
Tata Institute of Fundamental Research, Mumbai, India.
Aug. 1998 – Dec. 2002: Senior Research Fellow
Institute of Physics, Bhubaneswar, India.
Aug. 1996 – Jul. 1998: Junior Research Fellow
Institute of Physics, Bhubaneswar, India.

Academic Records:

2003 Ph.D., in Physics (Advisor: Prof. Ajit M. Srivastava)
Institute of Physics, Bhubaneswar, India.
1997 Post. M.Sc. Diploma in Advanced Physics
Institute of Physics, Bhubaneswar, India.
1996 M.Sc., in Physics
Science College, Rajabazar (University of Calcutta), India.
1994 B.Sc. (Honours), in Physics
Asutosh College (University of Calcutta), India.
Other Awards:
1996 Qualified for Graduate Aptitude Test in Engineering (GATE 1996)
in Physical Sciences.

Service Profile

Research:

Involved in full time research program at Bose Institute.

Total Publications: 71

A: Publications in peer-reviewed journals: 33

B: Other Research Articles: 4

C: Books/Edited volumes/Reports: 2

D: PhD Thesis: 1

E: Conference proceedings: 31

Teaching:

Involved in teaching various courses in Integrated MSc-PhD (Physical Sciences) and Post-MSc programmes at Bose Institute.

Human Resource Development:

Involved in training several doctoral scholars. Involved in training pre-doctoral students of Bose Institute as well as from other institutes through short duration project works.

Seminars/Conferences/Outreach:

Involved in organization and participation in various seminar, conference and outreach programs of Bose Institute especially in the North-East Student's Summer Training on Basic Science (NESST-BASE) school and in the Winter School and Conference on Astroparticle physics.

Administrative:

Presently serving as Co-ordinator of Integrated MSc-PhD (Physical Sciences), and as Chairman of Telephone Facility committee, Bose Institute.

List of Publications:**A. Peer Reviewed Journals:****A.1. Centrality Dependence Of Chemical Freeze-out Parameters From Net-proton And Net-charge Fluctuations Using Hadron Resonance Gas Model**

Rama Prasad Adak, Supriya Das, Sanjay K. Ghosh, Rajarshi Ray and Subhasis Samanta
Published in Phys.Rev. C96 (2017) no.xx, 014902(1-11)
DOI: 10.1103/PhysRevC.96.014902
e-Print: arXiv:1609.05318 [nucl-th]

A.2. Reparametrizing the Polyakov – Nambu – Jona-Lasinio model

Abhijit Bhattacharyya, Sanjay K. Ghosh, Soumitra Maity, Sibaji Raha, Rajarshi Ray, Kinkar Saha and Sudipa Upadhaya
Published in Phys.Rev. D95 (2017) no.5, 054005(1-13)
DOI: 10.1103/PhysRevD.95.054005
e-Print: arXiv:1609.07882 [hep-ph]

A.3. Polyakov–Nambu–Jona-Lasinio Model In Finite Volumes

Abhijit Bhattacharyya, Sanjay K. Ghosh, Rajarshi Ray, Kinkar Saha and Sudipa Upadhaya
Published in Europhys.Lett. 116 (2016) no.5, 52001(p1-p7)
DOI: 10.1209/0295-5075/116/52001
e-Print: arXiv:1507.08795 [hep-ph]

A.4. Exploring Effects Of Magnetic Field On The Hadron Resonance Gas

Abhijit Bhattacharyya, Sanjay K. Ghosh, Rajarshi Ray and Subhasis Samanta
Published in Europhys.Lett. 115 (2016) no.6, 62003(p1-p6)
DOI: 10.1209/0295-5075/115/62003
e-Print: arXiv:1504.04533 [hep-ph]

A.5. Thermodynamics And Fluctuations Of Conserved Charges In A Hadron Resonance Gas Model In A Finite Volume

Abhijit Bhattacharyya, Rajarshi Ray, Subhasis Samanta and Subrata Sur
Published in Phys.Rev. C91 (2015) no.4, 041901(1-6) (Rapid Communication)
DOI: 10.1103/PhysRevC.91.041901
e-Print: arXiv:1502.00889 [hep-ph]

A.6. Fluctuation Of Strongly Interacting Matter In The Polyakov – Nambu – Jona-Lasinio Model In A Finite Volume

Abhijit Bhattacharyya, Rajarshi Ray and Subrata Sur
Published in Phys.Rev. D91 (2015) no.5, 051501(1-6) (Rapid Communication)
DOI: 10.1103/PhysRevD.91.051501
e-Print: arXiv:1412.8316 [hep-ph]

A.7. Shear Viscosity And Phase Diagram From Polyakov – Nambu – Jona-Lasinio Model

Sanjay K. Ghosh, Sibaji Raha, Rajarshi Ray, Kinkar Saha and Sudipa Upadhaya
Published in Phys.Rev. D91 (2015) no.5, 054005(1-11)
DOI: 10.1103/PhysRevD.91.054005
e-Print: arXiv:1411.2765 [hep-ph]

- A.8. **Quark Number Susceptibility : Revisited With Fluctuation-Dissipation Theorem In Mean Field Theories**
Sanjay K. Ghosh, Anirban Lahiri, Sarbani Majumder, Munshi G. Mustafa Sibaji Raha and Rajarshi Ray
Published in Phys.Rev. D90 (2014) no.5, 054030(1-18)
DOI: 10.1103/PhysRevD.90.054030
e-Print: arXiv:1407.7203 [hep-ph]
- A.9. **Fluctuations And Correlations Of Conserved Charges In An Excluded Volume Hadron Resonance Gas Model**
Abhijit Bhattacharyya, Supriya Das, Sanjay K. Ghosh, Rajarshi Ray and Subhasis Samanta
Published in Phys.Rev. C90 (2014) no.3, 034909(1-15)
DOI: 10.1103/PhysRevC.90.034909
e-Print: arXiv:1310.2793 [hep-ph]
- A.10. **Isospin Symmetry Breaking And Baryon-Isospin Correlations From Polyakov – Nambu – Jona-Lasinio Model**
Abhijit Bhattacharyya, Sanjay K. Ghosh, Anirban Lahiri, Sarbani Majumder, Sibaji Raha and Rajarshi Ray
Published in Phys.Rev. C89 (2014) no.6, 064905(1-7)
DOI: 10.1103/PhysRevC.89.064905
e-Print: arXiv:1212.6134 [hep-ph]
- A.11. **The Consequences Of SU(3) Colorsingletness, Polyakov Loop And Z(3) Symmetry On A QuarkGluon Gas**
Chowdhury Aminul Islam, Raktim Abir, Munshi G. Mustafa, Sanjay K. Ghosh and Rajarshi Ray
Published in J.Phys. G41 (2014) 025001(1-18)
DOI: 10.1088/0954-3899/41/2/025001
e-Print: arXiv:1208.3146 [hep-ph]
- A.12. **Duality Between The Dynamics Of Line-like Brushes Of Point Defects In 2D And Strings In 3D In Liquid Crystals**
Sanatan Digoal, Rajarshi Ray, P.S. Saumia and Ajit M. Srivastava
Published in J. Phys.: Condensed Matter 25 (2013) 404204(1-6)
DOI: 10.1088/0953-8984/25/40/404204
- A.13. **Shear Viscosity Due To Landau Damping From The Quark-Pion Interaction**
Sabyasachi Ghosh, Anirban Lahiri, Sarbani Majumder, Rajarshi Ray and Sanjay K. Ghosh
Published in Phys.Rev. C88 (2013) no.6, 068201(1-5)
DOI: 10.1103/PhysRevC.88.068201
e-Print: arXiv:1311.4070 [nucl-th]
- A.14. **Thermodynamic Properties Of Strongly Interacting Matter In Finite Volume Using Polyakov – Nambu – Jona-Lasinio Model**
Abhijit Bhattacharyya, Paramita Deb, Sanjay K. Ghosh, Rajarshi Ray and Subrata Sur
Published in Phys.Rev. D87 (2013) no.5, 054009(1-13)
DOI: 10.1103/PhysRevD.87.054009
e-Print: arXiv:1212.5893 [hep-ph]

- A.15. **Study Of Beta Equilibrated 2+1 Flavor Quark Matter In the Polyakov – Nambu – Jona-Lasinio Model**
Abhijit Bhattacharyya, Sanjay K. Ghosh, Sarbani Majumder and Rajarshi Ray
Published in Phys.Rev. D86 (2012) 096006(1-11)
DOI: 10.1103/PhysRevD.86.096006
e-Print: arXiv:1107.5941 [hep-ph]
- A.16. **Heavy Lepton Pair Production In Nucleus-Nucleus Collisions At LHC Energy – A Case Study**
Jan-e Alam, Bedangadas Mohanty, Sanjay K. Ghosh, Sarbani Majumder and Rajarshi Ray
Published in Nucl.Phys. A889 (2012) 1-7
DOI: 10.1016/j.nuclphysa.2012.05.004
e-Print: arXiv:1102.1855 [nucl-th]
- A.17. **Correlation Between Conserved Charges In Polyakov – Nambu – Jona-Lasinio Model With Multiquark Interactions**
Abhijit Bhattacharyya, Paramita Deb, Anirban Lahiri and Rajarshi Ray
Published in Phys.Rev. D83 (2011) 014011(1-9)
DOI: 10.1103/PhysRevD.83.014011
e-Print: arXiv:1010.2394 [hep-ph]
- A.18. **Susceptibilities With Multi-Quark Interactions In the Polyakov – Nambu – Jona-Lasinio Model**
Abhijit Bhattacharyya, Paramita Deb, Anirban Lahiri and Rajarshi Ray
Published in Phys.Rev. D82 (2010) 114028(1-11)
DOI: 10.1103/PhysRevD.82.114028
e-Print: arXiv:1008.0768 [hep-ph]
- A.19. **Investigation Of The Phase Diagram And Bulk Thermodynamic Properties Using The Polyakov – Nambu – Jona-Lasinio Model With Eight-Quark Interactions**
Abhijit Bhattacharyya, Paramita Deb, Sanjay K. Ghosh and Rajarshi Ray
Published in Phys.Rev. D82 (2010) 014021(1-11)
DOI: 10.1103/PhysRevD.82.014021
e-Print: arXiv:1003.3337 [hep-ph]
- A.20. **Rigorous Treatment Of Electrostatics For Spatially Varying Dielectrics Based On Energy Minimization**
Oleg I. Obolensky, Timothy P. Doerr, Rajarshi Ray and Yi-Kuo Yu
Published in Phys. Rev. E79 (2009) 041907(1-15)
DOI: 10.1103/PhysRevE.79.041907
e-Print: arXiv:0901.0129 [physics.class-ph]
- A.21. **Polyakov – Nambu – Jona-Lasinio Model With A Vandermonde Term**
Sanjay K. Ghosh, Tamal K. Mukherjee, Munshi G. Mustafa and Rajarshi Ray
Published in Phys.Rev. D77 (2008) 094024(1-10)
DOI: 10.1103/PhysRevD.77.094024
e-Print: arXiv:0710.2790 [hep-ph]

A.22. Wakes In A Collisional Quark-Gluon Plasma

Purnendu Chakraborty, Munshi G. Mustafa, Rajarshi Ray and Markus H. Thoma
Published in J.Phys. G34 (2007) 2141-2152
DOI: 10.1088/0954-3899/34/10/004
e-Print: arXiv:0705.1447 [hep-ph]

A.23. Thermodynamics Of The Polyakov – Nambu – Jona-Lasinio Model With Nonzero Baryon And Isospin Chemical Potentials

Swagato Mukherjee, Munshi G. Mustafa and Rajarshi Ray
Published in Phys.Rev. D75 (2007) 094015(1-14)
DOI: 10.1103/PhysRevD.75.094015
e-Print: hep-ph/0609249

A.24. Susceptibilities And Speed Of Sound From The Polyakov – Nambu – Jona-Lasinio Model

Sanjay K. Ghosh, Tamal K. Mukherjee, Munshi G. Mustafa and Rajarshi Ray
Published in Phys.Rev. D73 (2006) 114007(1-10)
DOI: 10.1103/PhysRevD.73.114007
e-Print: hep-ph/0603050

A.25. Stochastic Resonance In Underdamped, Bistable Systems

Rajarshi Ray and Supratim Sengupta
Published in Phys. Lett. A 353 (2006) 364-371
DOI: 10.1016/j.physleta.2005.12.105
e-Print: arXiv:nlin/0506039 [nlin.PS]

A.26. Chiral Dynamics In QCD At Finite Chemical Potential

Sourendu Gupta and Rajarshi Ray
Published in Phys.Rev. D70 (2004) 114015(1-11)
DOI: 10.1103/PhysRevD.70.114015
e-Print: hep-lat/0409126

A.27. Sustaining Supercooled Mixed Phase Via Resonant Oscillations Of The Order Parameter

Rajarshi Ray, Soma Sanyal and Ajit M. Srivastava
Published in Int.J.Mod.Phys. A19 (2004) 1511-1524
DOI: 10.1142/S0217751X0401818X
e-Print: cond-mat/0201063

A.28. Measuring Cosmic Defect Correlations In Liquid Crystals

Rajarshi Ray and Ajit M. Srivastava
Published in Phys.Rev. D69 (2004) 103525(1-10)
DOI: 10.1103/PhysRevD.69.103525
e-Print: hep-ph/0110165

A.29. Stochastic Production Of Kink-antikink Pairs In The Presence Of An Oscillating Background

Rajarshi Ray and Supratim Sengupta
Published in Phys.Rev. D65 (2002) 063521(1-10)
DOI: 10.1103/PhysRevD.65.063521
e-Print: hep-ph/0111152

A.30. Formation And Collapse Of False Vacuum Bubbles In Relativistic Heavy-Ion Collisions

Rajarshi Ray, Soma Sanyal and Ajit M. Srivastava
Published in Nucl.Phys. A712 (2002) 329-356
DOI: 10.1016/S0375-9474(02)01168-5
e-Print: hep-ph/0105272

A.31. Resonant Production Of Topological Defects

Sanatan Digal, Rajarshi Ray, Supratim Sengupta and Ajit M. Srivastava
Published in Phys.Rev.Lett. 84 (2000) 826-829
DOI: 10.1103/PhysRevLett.84.826
e-Print: hep-ph/9911446

A.32. Possibility Of Forming A Large DCC In Ultra-Relativistic Heavy-Ion Collisions

Sanatan Digal, Rajarshi Ray, Supratim Sengupta and Ajit M. Srivastava
Published in Int.J.Mod.Phys. A15 (2000) 2269-2288
DOI: 10.1142/S0217751X0000094X
e-Print: hep-ph/9805227

A.33. Observing Correlated Production Of Defect and Antidefects In Liquid Crystals

Sanatan Digal, Rajarshi Ray and Ajit M. Srivastava
Published in Phys.Rev.Lett. 83 (1999) 5030-5033
DOI: 10.1103/PhysRevLett.83.5030
e-Print: hep-ph/9805502

B. Other Research Articles:**B.1. Thermodynamics of strongly interacting matter in a hybrid model**

Abhijit Bhattacharyya, Sanjay K. Ghosh, Soumitra Maity, Sibaji Raha, Rajarshi Ray, Kinkar Saha, Subhasis Samanta and Sudipa Upadhaya
e-Print: arXiv:1708.04549 [hep-ph]

B.2. Net Charge Fluctuations As A Signal Of QGP From Polyakov – Nambu – Jona-Lasinio Model

Abhijit Bhattacharyya, Supriya Das, Sanjay K. Ghosh, Sibaji Raha, Rajarshi Ray, Kinkar Saha and Sudipa Upadhaya
e-Print: arXiv:1212.6010 [hep-ph]

B.3. Entropy Scaling And Thermalization In Hadron-Hadron Collisions At LHC

Supriya Das, Sanjay K. Ghosh, Sibaji Raha and Rajarshi Ray
e-Print: arXiv:1104.3053 [hep-ph]

B.4. A Stochastic Approach To Pionization

Abhijit Bhattacharyya, Sanjay K. Ghosh, Tamal K. Mukherjee, Sibaji Raha and Rajarshi Ray
Unpublished

C. Books / Edited Volumes / Reports:**C.1. Challenges In QCD Matter Physics – The Compressed Baryonic Matter Experiment At FAIR**

CBM Collaboration
e-Print: arXiv:1607.01487 [nucl-ex]
Report of the CBM Collaboration to the FAIR Scientific Council, 2016

C.2. Formation Of Vortex-Antivortex Pairs

Sanatan Dikal, Rajarshi Ray, Supratim Sengupta and Ajit M. Srivastava
Published in Connectivity and Superconductivity edited by Jorge Berger and Jacob Rubinstein, Monographs LNP m62 (2002) 215: Springer Publication
DOI 10.1007/3-540-44532-3_10

D. Doctoral Thesis:**D.1. Studies Of Phase Transition Dynamics: Formation Of Disoriented Chiral Condensates And Topological Defects**

Rajarshi Ray
Published in the Thesis submitted to the Utkal University for the degree of Doctor of Philosophy in Science (Physics) (2002) 1-169

E. Proceedings:**E.1. Study Of Equation Of State And Fluctuations At Non Zero Magnetic Field In The Hadron Resonance Gas Model**

Abhijit Bhattacharyya Sanjay K. Ghosh Rajarshi Ray and Subhasis Samanta

Published in PoS ICPAQGP2015 (2017) 075

Prepared for the Proceedings of the 7th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP-2015) held at Variable Energy Cyclotron Center, Kolkata, India, during 2-6 February 2015.

E.2. A Finite Volume Study Of The Thermodynamic Properties Of Strongly Interacting Matter Using PNJL Model.

Subrata Sur, Abhijit Bhattacharyya, Sanjay K. Ghosh, Paramita Deb and Rajarshi Ray

Published in PoS ICPAQGP2015 (2017) 072

Prepared for the Proceedings of the 7th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP-2015) held at Variable Energy Cyclotron Center, Kolkata, India, during 2-6 February 2015.

E.3. Scaling Behaviour Of μ_B/T In The STAR Experiment

Rama Prasad Adak, Supriya Das, Sanjay K. Ghosh, Rajarshi Ray and Subhasis Samanta

Published in DAE Symp.Nucl.Phys. 61 (2016) 828-829

Prepared for the Proceedings of 61st DAE-BRNS Symposium on Nuclear Physics, held at Saha Institute of Nuclear Physics, Kolkata, India, during 5-9 December, 2016

E.4. Looking For Possible Volume Scaling Violations In Finite Volume Polyakov – Nambu – Jona-Lasinio Model

Kinkar Saha, Sudipa Upadhaya, Abhijit Bhattacharyya, Sanjay K. Ghosh, and Rajarshi Ray

Published in DAE Symp.Nucl.Phys. 60 (2015) 802-803

Prepared for the Proceedings of 60th DAE-BRNS Symposium on Nuclear Physics, held at the Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, Andhra Pradesh, India, during 7-11 December, 2015

E.5. Thermal Di-muon From QGP Source At FAIR Energy

Rama Prasad Adak, Subhasis Chattopadhyay, Supriya Das, Sanjay K. Ghosh, Rajarshi Ray and Subhasis Samanta

Published in DAE Symp.Nucl.Phys. 60 (2015) 798-799

Prepared for the Proceedings of 60th DAE-BRNS Symposium on Nuclear Physics, held at the Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, Andhra Pradesh, India, during 7-11 December, 2015

E.6. Quark Number Susceptibility: Revisited In Mean Field Theories

Sanjay K. Ghosh, Sibaji Raha, Rajarshi Ray, Anirban Lahiri, Sarbani Majumder and Munshi G. Mustafa.

Published in DAE Symp.Nucl.Phys. 60 (2015) 17-18

Prepared for the Proceedings of 60th DAE-BRNS Symposium on Nuclear Physics, held at the Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, Andhra Pradesh, India, during 7-11 December, 2015

E.7. "Soft" And "Hard" Interactions In Proton-Proton Collisions At LHC Energies

Sidharth K. Prasad, Supriya Das, Sanjay K. Ghosh, Premomoy Ghosh, Sanjib Muhuri, Tapan K. Nayak and Rajarshi Ray

Published in Proc.Indian Natl.Sci.Acad. 81 (2015) no.1, 213-216

DOI: 10.16943/ptinsa/2015/v81i1/48071

Prepared for the Proceedings of International Conference on Matter at Extreme Conditions : Then & Now (ICMEC 2014), held at Bose Institute, Kolkata, India, during 15-17 January, 2014

E.8. Study Of D-measure From Polyakov – Nambu – Jona-Lasinio Model

Abhijit Bhattacharyya, Supriya Das, Sanjay K. Ghosh, Sibaji Raha, Rajarshi Ray, Kinkar Saha and Sudipa Upadhaya

Published in Proc.Indian Natl.Sci.Acad. 81 (2015) no.1, 152-157

DOI: 10.16943/ptinsa/2015/v81i1/48062

Prepared for the Proceedings of International Conference on Matter at Extreme Conditions : Then & Now (ICMEC 2014), held at Bose Institute, Kolkata, India, during 15-17 January, 2014

E.9. Study Of Fluctuations From Polyakov – Nambu – Jona-Lasinio Model

Abhijit Bhattacharyya, Supriya Das, Sanjay K. Ghosh, Sibaji Raha, Rajarshi Ray, Kinkar Saha and Sudipa Upadhaya

Published in Proc.Indian Natl.Sci.Acad. 81 (2015) no.1, 56-61

DOI: 10.16943/ptinsa/2015/v81i1/48051

Prepared for the Proceedings of International Conference on Matter at Extreme Conditions : Then & Now (ICMEC 2014), held at Bose Institute, Kolkata, India, during 15-17 January, 2014

E.10. Study Of Fluctuations In Excluded Volume Hadron Resonance Gas Model

Abhijit Bhattacharyya, Supriya Das, Sanjay K. Ghosh, Rajarshi Ray, Subhasis Samanta

Published in Proc.Indian Natl.Sci.Acad. 81 (2015) no.1, 51-55

DOI: 10.16943/ptinsa/2015/v81i1/48050

Prepared for the Proceedings of International Conference on Matter at Extreme Conditions : Then & Now (ICMEC 2014), held at Bose Institute, Kolkata, India, during 15-17 January, 2014

E.11. Combining EVHRG And PNJL Model In Contrast To Continuum LQCD Data

Abhijit Bhattacharyya, Sanjay K Ghosh, Soumitra Maity, Rajarshi Ray, Kinkar Saha, Subhasis Samanta and Sudipa Upadhaya

Published in DAE Symp.Nucl.Phys. 59 (2014), 774-775

Prepared for the Proceedings of 59th DAE-BRNS Symposium on Nuclear Physics, held at Banaras Hindu University, Varanasi, India, during 8-12 December, 2014

E.12. Net Charge Fluctuations In PNJL Model

Abhijit Bhattacharyya, Supriya Das, Sanjay K. Ghosh, Sibaji Raha, Rajarshi Ray, Kinkar Saha and Sudipa Upadhaya

Published in DAE Symp.Nucl.Phys. 59 (2014), 692-693

Prepared for the Proceedings of 59th DAE-BRNS Symposium on Nuclear Physics, held at Banaras Hindu University, Varanasi, India, during 8-12 December, 2014

E.13. Thermodynamics Of QCD Matter At Finite Volume

Abhijit Bhattacharyya, Paramita Deb, Sanjay K. Ghosh, Rajarshi Ray and Subrata Sur

Published in DAE Symp.Nucl.Phys. 59 (2014), 674-675

Prepared for the Proceedings of 59th DAE-BRNS Symposium on Nuclear Physics, held at Banaras Hindu University, Varanasi, India, during 8-12 December, 2014

E.14. Behavior Of Shear Viscosity From PNJL Model

Sanjay K. Ghosh, Sibaji Raha, Rajarshi Ray, Kinkar Saha and Sudipa Upadhaya

Published in DAE Symp.Nucl.Phys. 59 (2014), 694-695

Prepared for the Proceedings of 59th DAE-BRNS Symposium on Nuclear Physics, held at Banaras Hindu University, Varanasi, India, during 8-12 December, 2014

E.15. Fluctuations At Finite Volume In Strongly Interacting Matter

Abhijit Bhattacharyya, Rajarshi Ray and Subrata Sur

Published in DAE Symp.Nucl.Phys. 59 (2014), 708-709

Prepared for the Proceedings of 59th DAE-BRNS Symposium on Nuclear Physics, held at Banaras Hindu University, Varanasi, India, during 8-12 December, 2014

E.16. Study Of Charge Fluctuations In Interacting Hadron Resonance Gas Model

Abhijit Bhattacharyya, Supriya Das, Sanjay K. Ghosh, Rajarshi Ray, Subhasis Samanta

Published in DAE Symp.Nucl.Phys. 58 (2013), 714-715

Prepared for the Proceedings of 58th DAE-BRNS Symposium on Nuclear Physics, held at Bhabha Atomic Research Center, Mumbai, India, during 2-6 December, 2013

E.17. Shear Viscosity Due To Quark-Pion Interaction

Sabyasachi Ghosh, Anirban Lahiri, Sarbani Majumder, Rajarshi Ray and Sanjay K. Ghosh

Published in DAE Symp.Nucl.Phys. 58 (2013), 682-683

Prepared for the Proceedings of 58th DAE-BRNS Symposium on Nuclear Physics, held at Bhabha Atomic Research Center, Mumbai, India, during 2-6 December, 2013

E.18. Polyakov Loop And Recombination Dynamics Of Quarks And Gluons

Chowdhury Aminul Islam, Raktim Abir, Munshi G. Mustafa, Rajarshi Ray and Sanjay K. Ghosh

Published in DAE Symp.Nucl.Phys. 57 (2012) 840-841

Prepared for the Proceedings of 57th DAE-BRNS Symposium on Nuclear Physics, held at New Delhi, India, during 3-7 December, 2012

E.19. QCD Phase Diagram Using PNJL Model With Eight-Quark Interactions

Paramita Deb, Abhijit Bhattacharyya, Sanjay K. Ghosh, Rajarshi Ray, Anirban Lahiri

Published in Nucl.Phys. A862-863 (2011) 267-270

DOI: 10.1016/j.nuclphysa.2011.05.068

e-Print: arXiv:1101.5228 [hep-ph]

Prepared for the Proceedings of the 6th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP 2010), held at Goa, India, during 5-10 December, 2010

- E.20. Entropy Scaling From Chaotically Produced Particles In p-p Collisions At LHC Energies**
Supriya Das, Sanjay K. Ghosh, Sibaji Raha, Rajarshi Ray
Published in Nucl.Phys. A862-863 (2011) 438-441 (Unavailable online)
e-Print: arXiv:1304.5855 [hep-ph]
Prepared for the Proceedings of the 6th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP 2010), held at Goa, India, during 5-10 December, 2010
- E.21. Models For Strong Interaction Physics**
Rajarshi Ray
Published in Nucl.Phys. A862-863 (2011) 118-124
DOI: 10.1016/j.nuclphysa.2011.05.029
Prepared for the Proceedings of the 6th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP 2010), held at Goa, India, during 5-10 December, 2010
- E.22. QGP Susceptibilities From PNJL Model**
Sanjay K. Ghosh, Tamal K. Mukherjee, Munshi G. Mustafa and Rajarshi Ray
Published in Indian J.Phys. 85 (2011) 87-91
DOI: 10.1007/s12648-011-0023-9
e-Print: arXiv:0805.4690 [hep-ph]
Prepared for the Proceedings of the 20th International Conference on Ultra-Relativistic Nucleus Nucleus Collisions (Quark Matter 2008), held at Jaipur, India, during 4-10 February, 2008
- E.23. Chiral Dynamics And Operator Relations At Non-zero Chemical Potential**
Sourendu Gupta and Rajarshi Ray
Published in J.Phys.Conf.Ser. 50 (2006) 430-433
DOI: 10.1088/1742-6596/50/1/064
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