

Dr. Somdeb Chakraborty, Ph.D.



❖ Personal Details

Sex- Male
Nationality: Indian

Address:
Department of Physics, City College,
102/1, Raja RamMohan Sarani,
Kolkata-700009, West Bengal, India

Contact Details:

Email ID: somdeb.chakraborty@citycollegekolkata.org

❖ **Current Position:** Assistant Professor, Department of Physics, City College, (Under Calcutta University).

❖ **Membership details:**

❖ **Member of Editorial Board:**

❖ **Educational qualifications:**

Course	University
B.Sc. (Physics Hons.), 2006	Presidency College (under University of Calcutta)
M.Sc. in Physics, 2008	Indian Institute of Technology, Kharagpur
Ph.D., Physics, 2015	Saha Institute of Nuclear Physics

❖ **Technical workshop & Academic Training:**

Refresher Course on Astronomy and Astrophysics, IUCAA, 2020

4-Week Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education, Ramanujan College (under MHRD), 2020

Online Two-Week Refresher Course in Physics, Ramanujan College, (under MHRD), 2021

School on Quantum Field Theories on Lattice, Saha Institute of Nuclear Physics, Kolkata, India, 2013

SERC School on Theoretical High Energy Physics, Saha Institute of Nuclear Physics, Kolkata, India, 2012

International School on Strings and Fundamental Physics, DESY - Hamburg, Germany, 2012

Spring School on Superstring Theory and Related Topics, ICTP - Trieste, Italy, 2012

Advanced String School, Puri, India, 2010

❖ **Previous working experience:**

Sl. No.	Post	College, University and Organisation	Department	Duration
1	Assistant Professor	Maulana Azad College (West Bengal Educational Service)	Physics	02.03.2015 – 31.05.2017

❖ **Area of expertise and Research Interest:**

Mathematical Physics, Theoretical High Energy Physics

❖ **Research Projects:**

a) Completed:

b) Ongoing Project:

❖ **Publication:**

Papers:

1. From classical periodic orbits in integrable π -rational billiards to quantum energy spectrum. Subhasis Panda, Sabyasachi Maulik, Somdeb Chakraborty and S. Pratik Khastgir; Eur. Phys. J. Plus (2019) 134: 308
2. Wilson loop calculation in QGP using non-supersymmetric AdS/CFT. Somdeb Chakraborty, Kuntal Nayek, Shibaji Roy; Nucl. Phys. B937 (2018), 196-213, [arXiv:1710.08631]
3. Entanglement thermodynamics for an excited state of Lifshitz system. Somdeb Chakraborty, Parijat Dey, Sourav Karar and Shibaji Roy; JHEP 1504 (2015), 133, [arXiv:1412.1276]
4. Drag force in strongly coupled, anisotropic plasma at finite chemical potential. Somdeb Chakraborty and Najmul Haque; JHEP 1412 (2014), 175, [arXiv:1410.7040]
5. Brownian motion in strongly coupled, anisotropic Yang-Mills plasma: A holographic approach. Shankhadeep Chakraborty, Somdeb Chakraborty and Najmul Haque; Phys. Rev. D89 (2014), 066013, [arXiv:1311.5023]
6. Wess-Zumino-Witten Model for Galilean Conformal Algebra. Somdeb Chakraborty and Parijat Dey; Mod. Phys. Lett. A28 (2013), 1350176, [arXiv:1209.0191]
7. Holographic quark-antiquark potential in anisotropic plasma. Somdeb Chakraborty and Najmul Haque; Nucl. Phys. B874 (2013), 821-851, [arXiv:1212.2769]
8. Wilson loops in noncommutative Yang-Mills theory using gauge/gravity duality. Somdeb Chakraborty, Najmul Haque and Shibaji Roy; Nucl. Phys. B862 (2012), 650-670, [arXiv:1201.0129]
9. Calculating the jet quenching parameter in the plasma of NCYM theory from gauge/gravity duality. Somdeb Chakraborty and Shibaji Roy; Phys. Rev. D85 (2012), 046006, [arXiv:1105.3384]
10. Wilson loops in $(p + 1)$ -dimensional Yang-Mills theories using gravity/gauge theory correspondence. Somdeb Chakraborty and Shibaji Roy; Nucl. Phys. B850 (2011), 463-476 [arXiv:1103.1248]
11. Eigenvalue Problem in Two Dimensions for an Irregular Boundary II: Neumann Condition. S. Panda, S. Chakraborty, S. P. Khastgir; Eur. Phys. J. Plus (2011), 126: 62, [arXiv:1106.4746]
12. Eigenvalue Problem in Two Dimension for an Irregular Boundary. S. Chakraborty, J.K. Bhattacharjee, S. P. Khastgir; J. Phys. A42 (2009), 195301, [arXiv:0812.2982]

❖ Awards:

1. **Humboldt Postdoctoral Fellowship** by the Alexander von Humboldt Foundation, Germany, 2015

❖ List of Participation in Seminar, Conference and Workshop

Invited Lectures:

Technical University of Munich, Munich, Germany, 2013

Gauge/Gravity Duality 2013, Max Planck Institute, Munich, Germany, 2013

University of Santiago de Compostela, Spain, 2013

Indian Strings Meeting, Puri, India, 2012

INFN Naples, Italy, 2012

INFN Rome Tor Vergata, Italy, 2012

INFN Florence, Italy, 2012

International/National:

National Conference on Future India: Science and Technology, City College, Kolkata, 2019

National Conference on Science and Technology: Rural Development, Surendra Nath College, Kolkata, 2019

One day seminar-cum-workshop on Python Computing: Some applications in Mathematical Physics, Basanti Devi College, Kolkata, 2019

A one day workshop on CBCS Physics Syllabus, Bangabasi College, Kolkata, 2018

Gauge/Gravity Duality 2013, Max Planck Institute, Munich, Germany, 2013

Indian Strings Meeting, Puri, India, 2012

International Conference on Modern Perspectives of Cosmology and Gravitation, Indian Statistical Institute - Kolkata, India, 2012

International Conference on Theoretical and Applied Physics, Indian Institute of Technology - Kharagpur, India, 2011

National Strings Meet, Indian Institute of Technology - Mumbai, India, 2010

❖ Workshops/Events organized

Member of Organizing Committee, National Webinar on COVID-19, 2020

Member of Technical Committee, National Conference on Future India: Science and Technology, 2019