

Dr. ABHISHEK DEY



Designation: Assistant Professor in Physics

About Me:

- **Experience / Expertise:**

I have joined West Bengal Education Service at Maulana Azad College in March 2015. Before that I joined Indian Association for the Cultivation of Science, Kolkata in 2012 as Junior Research Fellow under supervision of Prof Utpal Chattopadhyay. I got promoted to Senior Research Fellow in 2014. I have attended many conferences and seminars in different research institutes of India. My research works have been published in the Journal of High Energy Physics.

- **Specialisation & Area of Interests:** High Energy Physics: Nuclear and Particle Physics, Field Theory, Astrophysics and Cosmology

Qualifications:

- B.Sc. (Honours) in Physics (2007-2010) Presidency College, University of Calcutta
- M.Sc. in Physics (2010-2012), University of Calcutta
- CSIR NET December 2011, AIR 14
- Ph.D. in Physics (8th September 2020), University of Calcutta

Current Teaching:

- I have taught various topics of theoretical physics viz. Mathematical Methods, Electrodynamics, Classical Mechanics, Quantum Mechanics.
- Lab Conducted : Classical Mechanics, Optics, and Electricity- Magnetism, Computer Programming in Python, C and FORTRAN

Research Interests:

- Theoretical High Energy Physics – Physics Beyond Standard Model including Supersymmetry and Dark Matter

Selected Publications: Papers

- Exploring MSSM for Charge and Color Breaking and Other Constraints in the Context of Higgs@125GeV, Published in JHEP 1411 (2014) 161
- Probing Non-holomorphic MSSM via precision constraints, dark matter and LHC data Published in JHEP 1610 (2016) 027 Utpal Chattopadhyay (IACS, Kolkata), Abhishek Dey (Maulana Azad College)
- Exploring viable vacua of the Z₃-symmetric NMSSM, Published in JHEP 1704 (2017) 024 Jyotiranjana Beuria, (Harish-Chandra Res. Inst.), Utpal Chattopadhyay (IACS, Kolkata), Asesh Krishna Datta (Bhabha Atomic Res. Ctr. & Harish-Chandra Res. Inst.), Abhishek Dey (Maulana Azad College)
- Exploring Charge and Color Breaking vacuum in Non-Holomorphic MSSM Published in JHEP 1710 (2017) 154 Jyotiranjana Beuria (Harish-Chandra Res. Inst.), Abhishek Dey (Maulana Azad College)

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Professional Memberships and Activities:

Member of Indian Association of Physics Teachers