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### Previous Education

- Ph.D. (April 1996), *Composite Higgs, Dynamical Symmetry Breaking and the Standard Model*,  
University of Calcutta, Kolkata  
(Supervisor: Prof. Triptesh De, Saha Institute of Nuclear Physics, Kolkata)
- M.Sc. (1990), U. of Calcutta
- B.Sc. (1988), U. of Calcutta (Presidency College)

### Positions held

- Professor, Department of Physics,  
University of Calcutta, Kolkata, India (May 2009 onwards)
- Reader, Department of Physics, University of Calcutta (Sept. 2003 - May 2009)
- Lecturer, Department of Physics,  
Jadavpur University, Kolkata, India (December 1998 - August 2003)
- Fellow (Tenure Track),  
Mehta Research Institute of Mathematics and Mathematical Physics, Allahabad, India.  
(now known as Harish-Chandra Research Institute)  
(July 1996 - December 1998)
- Visiting Fellow,  
Tata Institute of Fundamental Research, Bombay, India.  
(December 1995 - June 1996)
- Senior Research Fellow - 1 and 2,  
Saha Institute of Nuclear Physics, Calcutta, India.  
(September 1992 - November 1995)

## Publication List of Anirban Kundu

### A) Published and communicated articles in refereed journals

(also available from <http://inspirehep.net> through an exact author search)

1. *A. Kundu, P. Mondal, and P.B. Pal* (2022): Custodial symmetry, Georgi-Machacek model, and other scalar extensions, *Physical Review D* **105**, 115026.
2. *A. Kundu, S.K. Patra and S. Roy* (2021): Complete analysis of all  $B \rightarrow \pi K$  decays, *Physical Review D* **104**, 095025 (2021).
3. *D. Vatsyayan and A. Kundu* (2020): Constraints on the quark mixing matrix with vector-like quarks, *Nuclear Physics B* **960**, 115208.
4. *A. Biswas, A. Kundu and P. Mondal* (2020): Hierarchy problem and dimension-six effective operators, *Physical Review D* **102**, 075022.
5. *M. Raju, J.P. Saha, D. Das and A. Kundu* (2020): Double Higgs boson production as an exclusive probe for a sequential fourth generation with wrong-sign Yukawa couplings, *Physical Review D* **101**, 055036.
6. *P. Mondal, S. Maharana and A. Kundu* (2020): A 96 GeV scalar tagged to dark matter models, *Nuclear Physics B* **955**, 115057.
7. *D. Choudhury, N. Kumar and A. Kundu* (2019): Search for an opposite sign muon-tau pair and a  $b$ -jet at the LHC in the context of flavor anomalies, *Physical Review D* **100**, 075001.
8. *Z. Calcuttawala, A. Kundu, S. Nandi and S.K. Patra* (2018): New physics with the lepton flavor violating decay  $\tau \rightarrow 3\mu$ , *Physical Review D* **97**, 095009.
9. *D. Choudhury, A. Kundu, R. Mandal and R. Sinha* (2018):  $R_{K^{(*)}}$  and  $R(D^{(*)})$  anomalies resolved with lepton mixing, *Nuclear Physics B* **933**, 433.
10. *D. Das, A. Kundu, and I. Saha* (2018): Higgs data does not rule out a sequential fourth generation with an extended scalar sector, *Physical Review D* **97**, 011701.
11. *S. Ghosh, R. Islam, and A. Kundu* (2018): Scattering unitarity with effective dimension-6 operators, *J. Phys. G* **45**, 015003.
12. *D. Choudhury, A. Kundu, R. Mandal, and R. Sinha* (2017): Minimal unified resolution to  $R_{K^{(*)}}$  and  $R(D^{(*)})$  anomalies with lepton mixing, *Physical Review Letters* **119**, 151801.
13. *Z. Calcuttawala, A. Kundu, S. Nandi, and S.K. Patra* (2017): Optimal observable analysis for the decay  $b \rightarrow s$  plus missing energy, *European Physical Journal C* **77**, 650.
14. *D. Choudhury, A. Kundu, S. Nandi, and S.K. Patra* (2017): Unified resolution of the  $R(D)$  and  $R(D^*)$  anomalies and the lepton flavor violating decay  $h \rightarrow \mu\tau$ , *Physical Review D* **95**, 035021.
15. *I. Chakraborty, A. Datta, and A. Kundu* (2016): Lepton flavor violating Higgs boson decay  $h \rightarrow \mu\tau$  at the ILC, *J. Phys. G* **43**, 125001.
16. *J. Chakrabortty, A. Kundu, and T. Srivastava* (2016): A novel method to deal with off-shell particles in cascade decays, *Physical Review D* **93**, 053005.
17. *I. Chakrabortty and A. Kundu* (2015): Diphoton excess at 750 GeV: Singlet scalars confront triviality, *Physical Review D* **93**, 055003.
18. *S. Ghosh, A. Kundu, and S. Ray* (2015): On the potential of a singlet scalar enhanced Standard Model, *Physical Review D* **93**, 115034.

19. *I. Chakraborty and A. Kundu* (2015): Scalar potential of two-Higgs doublet models, *Physical Review* **D92**, 095023.
20. *K. Harigaya, K. Ichikawa, A. Kundu, S. Matsumoto, and S. Shirai* (2015): Indirect probe of electroweak-interacting particles at future lepton colliders, *Journal of High Energy Physics* **1509**, 105.
21. *D. Das and A. Kundu* (2015): Two hidden scalars around 125 GeV and  $h \rightarrow \mu\tau$ , *Physical Review* **D92**, 015009.
22. *R. Bose, A. Datta, A. Kundu, and S. Poddar* (2014): LHC signatures of neutrino mass generation through R-parity violation, *Physical Review* **D90**, 035007.
23. *I. Chakraborty and A. Kundu* (2014): Two-Higgs doublet models confront the naturalness problem, *Physical Review* **D90**, 115017.
24. *I. Chakraborty and A. Kundu* (2014): Triplet-extended scalar sector and the naturalness problem, *Physical Review* **D89**, 095032.
25. *G. Bhattacharyya, D. Das, and A. Kundu* (2014): Feasibility of light scalars in a class of two-Higgs doublet models and their decay signatures, *Physical Review* **D89**, 095029.
26. *G. Bhattacharyya, A. Kundu, and T.S. Ray* (2014): Minimal supersymmetry confronts  $R_b$ ,  $A_{FB}^b$  and  $m_h$ , *Journal of Physics* **G41**, 035002.
27. *D. Choudhury, A. Kundu, and P. Saha* (2014): Z-pole observables in an effective theory, *Physical Review* **D89**, 013002.
28. *S.K. Patra and A. Kundu* (2013): CPT violation and triple-product correlations in B decays, *Physical Review* **D87**, 116005.
29. *D. Choudhury, R. Islam, and A. Kundu* (2013): Anomalous Higgs couplings as a window to new physics, *Physical Review* **D88**, 013014.
30. *I. Chakraborty and A. Kundu* (2013): Controlling the fine-tuning problem with singlet scalar dark matter, *Physical Review* **D87**, 055015.
31. *A. Kundu, S. Nandi, S.K. Patra, and A. Soni* (2013):  $B_s \rightarrow D_s K$  as a probe of CPT violation, *Physical Review* **D87**, 016005.
32. *D. Choudhury, D.K. Ghosh, and A. Kundu* (2012): B decay anomalies in an effective theory, *Physical Review* **D86**, 114037.
33. *R. Bose and A. Kundu* (2012):  $B \rightarrow \tau v$ : Opening up the charged Higgs parameter space with R-parity violation, *Physics Letters* **B706**, 379.
34. *A. Dighe, D. Ghosh, A. Kundu, and S.K. Patra* (2011): Reconciling anomalous measurements in  $B_s - \bar{B}_s$  mixing: the role of CPT-conserving and CPT-violating new physics, *Physical Review* **D84**, 056008.
35. *A. Dighe, A. Kundu, and S. Nandi* (2010): Enhanced  $B_s - \bar{B}_s$  Lifetime Difference and Anomalous Like-sign Dimuon Charge Asymmetry from New Physics in  $B_s \rightarrow \tau^+ \tau^-$ , *Physical Review* **D82**, 031502(R).
36. *J.P. Saha, B. Misra, and A. Kundu* (2010): Constraining Scalar Leptoquarks from the K and B Sectors, *Physical Review* **D81**, 095011.
37. *A. Kundu, S. Nandi, and S.K. Patra* (2010): Probing CPT Violation in B Systems, *Physical Review* **D81**, 076010.

38. *B. Bhattacherjee, A. Kundu, S.K. Rai, and S. Raychaudhuri* (2010): Multijet Discriminators for New Physics in Leptonic Signals at the LHC, *Physical Review* **D81**, 035021.
39. *P. Dey, A. Kundu, and B. Mukhopadhyaya* (2009): Some Consequences of a Higgs Triplet, *Journal of Physics* **G36**, 025002.
40. *P. Dey, A. Kundu, B. Mukhopadhyaya, and S. Nandi* (2008): Two-loop Neutrino Masses with Large R-parity Violating Interactions in Supersymmetry, *Journal of High Energy Physics* **12**, 100.
41. *B. Bhattacherjee, A. Kundu, S.K. Rai, and S. Raychaudhuri* (2008): Universal Extra Dimensions, Radiative Returns, and the Inverse Problem at a Linear  $e^+e^-$  Collider, *Physical Review* **D78**, 115005.
42. *A. Kundu and S. Nandi* (2008): R-parity Violating Supersymmetry,  $B_s$  Mixing, and  $D_s \rightarrow \ell\nu$ , *Physical Review* **D78**, 015009.
43. *A. Dighe, A. Kundu, and S. Nandi* (2007): Possibility of Large Lifetime Differences in Neutral B Meson Systems, *Physical Review* **D76**, 054005.
44. *B. Bhattacherjee and A. Kundu* (2007): Production of Higgs Boson Excitations of Universal Extra Dimension at the Large Hadron Collider, *Physics Letters* **B653**, 300.
45. *B. Bhattacherjee and A. Kundu* (2006): The Excited Scalars of the Universal Extra Dimension Model, *Journal of Physics* **G32**, 2123.
46. *S. Nandi and A. Kundu* (2006): New Physics in  $b \rightarrow s\bar{s}s$  Decay: Study of  $B \rightarrow V_1V_2$  Modes, *Journal of Physics* **G32**, 835.
47. *B. Bhattacherjee and A. Kundu* (2005): The International Linear Collider as a Kaluza-Klein Factory, *Physics Letters* **B627**, 137.
48. *A. Datta, J.P. Saha, A. Kundu and A. Samanta* (2005): Rare Weak Decays and Direct Lepton Number Violating Signals in a Minimal R-Parity Violating Model of Neutrino Mass, *Physical Review* **D72**, 055007.
49. *A. Kundu, S. Nandi and J.P. Saha* (2005): New Physics in  $b \rightarrow s\bar{s}s$  Decay, *Physics Letters* **B622**, 102.
50. *G. Bhattacharyya, P. Dey, A. Kundu and A. Raychaudhuri* (2005): Probing Universal Extra Dimension at the International Linear Collider, *Physics Letters* **B628**, 141.
51. *A. Kundu and J.P. Saha* (2004): Constraints on R-Parity Violating Supersymmetry from Neutral Meson Mixing, *Physical Review* **D70**, 096002.
52. *G. Bhattacharyya, A. Datta and A. Kundu* (2004): R-Parity Violation in  $B \rightarrow \pi^+\pi^-$  Decay, *Journal of Physics* **G30**, 1947.
53. *A. Kundu, E.A. Paschos and Y.-F. Zhou* (2004): Vector Meson Contributions in  $\epsilon'/\epsilon$ , *Physics Letters* **B596**, 256.
54. *J.P. Saha and A. Kundu* (2004): Reevaluating Bounds on Flavor Changing Neutral Current Parameters in R-Parity Conserving and R-parity Violating Supersymmetry from  $B^0\text{-}\overline{B}^0$  Mixing, *Physical Review* **D69**, 016004.
55. *A. Kundu and T. Mitra* (2003): Simultaneous Solution to  $B \rightarrow \phi K$  CP Asymmetry and  $B \rightarrow \eta' K, \eta K^*$  Branching Ratio Anomalies from R Parity Violation, *Physical Review* **D67**, 116005.

56. *D. Chakraverty, K. Huitu and A. Kundu* (2003): Effects of Universal Extra Dimensions on  $B^0 - \bar{B}^0$  Mixing, *Physics Letters* **B558**, 173.
57. *J.P. Saha and A. Kundu* (2002): Constraints on R Parity Violating Supersymmetry from Leptonic and Semileptonic  $\tau$ ,  $B_d$  and  $B_s$  decays, *Physical Review* **D66**, 054021.
58. *D.K. Ghosh, A. Kundu, P. Roy and S. Roy* (2001): Characteristic Wino Signals in a Linear Collider from Anomaly Mediated Supersymmetry Breaking, *Physical Review* **D64**, 115001.
59. *G. Bhattacharyya, A. Datta and A. Kundu* (2001): Can R-parity Violation Lower  $\sin 2\beta$ ? *Physics Letters* **B514**, 47.
60. *A. Datta, A. Kundu and A. Samanta* (2001): New Bounds on Slepton and Wino Masses in Anomaly Mediated Supersymmetry Breaking Models, *Physical Review* **D64**, 095016.
61. *D. Choudhury, A. Kundu and B. Mukhopadhyaya* (2001): Testable Signals of Charm Decay in the  $B_c$  Meson, *Modern Physics Letters* **A16**, 1439.
62. *A. Datta, A. Kundu and A. Samanta* (2001): Yukawa Unification and Unstable Minima of the Supersymmetric Scalar Potential, *Physical Review* **D63**, 015008.
63. *D. Choudhury, B. Dutta and A. Kundu* (1999): A Supersymmetric Resolution of the Anomaly in Charmless Nonleptonic  $B$ -Decays, *Physics Letters* **B456**, 185.
64. *A. Ghosal, A. Kundu and B. Mukhopadhyaya* (1998): Gauge-Mediated Supersymmetry Breaking Signals in an Electron-Photon Collider, *Physical Review* **D57**, 1972.
65. *A. Datta, A. Datta, A. Kundu, B. Mukhopadhyaya and S. Roy* (1997): Testing Gauge-Gravitino Coupling in Gauge-Mediated Supersymmetry Breaking Through Single Photon Events, *Physics Letters* **B416**, 117.
66. *A. Ghosal, A. Kundu and B. Mukhopadhyaya* (1997): Probing Gauge-Mediated Supersymmetry Breaking Through Polarized Electron Beams in an  $e^+ e^-$  Collider, *Physical Review* **D56**, 504.
67. *A. Dutt-Mazumder, B. Dutta-Roy and A. Kundu* (1997): Matter Induced  $\rho - \omega$  Mixing, *Physics Letters* **B399**, 196.
68. *D. Chakraverty, T. De, B. Dutta-Roy and A. Kundu* (1997): Applicability of Heavy Quark Effective Theory to the Radiative Decay  $B \rightarrow K^* + \gamma$ , *International Journal of Modern Physics* **A12**, 2763.
69. *A. Kundu and P. Roy* (1997): A General Treatment of Oblique Parameters, *International Journal of Modern Physics* **A12**, 1511.
70. *A. Kundu and B. Mukhopadhyaya* (1996): A General Higgs Sector: Constraints and Phenomenology, *International Journal of Modern Physics* **A11**, 5221.
71. *A. Dutt-Mazumder, A. Kundu, T. De and B. Dutta-Roy* (1996): Symmetry Breaking for  $\rho$  Meson in Neutron Matter, *Physics Letters* **B378**, 35.
72. *D. Chakraverty and A. Kundu* (1996): Constraints on a General Higgs Sector from  $K^0 - \bar{K}^0$ ,  $B_d - \bar{B}_d$  Mixing and the  $\epsilon$  Parameter, *Modern Physics Letters* **A11**, 675.
73. *D. Chakraverty, T. De, B. Dutta-Roy and A. Kundu* (1996): Effective Theory Approach to SUSY Hadron Spectroscopy, *Physical Review* **D53**, 5293.
74. *A. Kundu and S. Raychaudhuri* (1996): Taming the Scalar Mass Problem with a Singlet Higgs Boson, *Physical Review* **D53**, 4042.
75. *A. Kundu* (1996): Electroweak Precision Data and a Heavy  $Z'$ , *Physics Letters* **B370**, 135.

76. A. Dutt-Mazumder, B. Dutta-Roy, A. Kundu and T. De (1996): Tensor Coupling and Vector Mesons in Dense Nuclear Matter, *Physical Review* **C53**, 790.
77. G. Bhattacharyya, A. Kundu, T. De and B. Dutta-Roy (1995): Effects of Isodoublet Colour-octet Scalar Bosons on Oblique Electroweak Parameters, *Journal of Physics* **G21**, 153.
78. A. Kundu, S. Raychaudhuri, T. De and B. Dutta-Roy (1994): Radiative Corrections to  $\Gamma(Z \rightarrow b\bar{b})$  from Colored Scalars in a Model with Dynamical Symmetry Breaking, *Physical Review* **D50**, 6872.
79. A. Kundu, T. De and B. Dutta-Roy (1994): Advantages in Choosing Real Generators for  $SU(N)$ , *Journal of Group Theory in Physics* **2**, 51.
80. A. Kundu, T. De and B. Dutta-Roy (1994): Role of Isodoublet Color-octet Scalar Bosons in Radiative  $B$  Decays, *Physical Review* **D49**, 4801.
81. A. Kundu, T. De and B. Dutta-Roy (1994): The Role of Color-octet Isodoublet Scalar Bosons in the Physics of  $K - \bar{K}$ ,  $B_d - \bar{B}_d$  Mixing and the  $\epsilon$  Parameter, *Physical Review* **D49**, 4793.
82. A. Kundu, T. De and B. Dutta-Roy (1993): Top Quark Mass in the Condensate Model and the Possibility of Colored Bosons, *Modern Physics Letters* **A8**, 2465.

#### **B) Invited Review**

1. I. Chakraborty and A. Kundu (2016): Naturalness problem: Off the beaten track, *Pramana* **87**, 38 (2016).
2. A. Kundu (2020): Bottom-up naturalness as a guide to new physics, Feature article in *AAPPS Bulletin*, **30**, No. 5, 2.

#### **C) Published contributions to academic conferences**

1. A. Kundu, A. Le Yaouanc, P. Mondal and F. Richard (2022): Searches for scalars at LHC and interpretation of the findings, Talk presented by F. Richard at the ECFA-DESY meeting in October 2022, [arXiv:2211.11723 [hep-ph]].
2. D. Choudhury, A.K. Datta, and A. Kundu (2008): Working Group Report on Collider and Flavour Physics at the 10th Workshop on High Energy Particle Phenomenology (WHEPP-10), IMSc, Chennai, India, CU-PHYSICS/13-2008 (to be published in *Pramana*, Conference Proceedings of WHEPP-10).
3. A. Kundu (2008): Universal Extra Dimension, talk delivered at the Workshop on Perspectives of Warped Extra Dimensions (PWED), IIT Kharagpur, India, Feb. 2008, arXiv:0806.3815 [hep-ph].
4. A. Kundu (2005): Influence of Special Theory of Relativity on Post-1905 Physics, Talk delivered at the Symposium on the Centenary of the Special Theory of Relativity, Burdwan University, Bardhaman, India, CU-PHYSICS/06-2005.
5. A. Dighe and A. Kundu (2004): Working Group Report on Low Energy and Flavour Physics at the 8th Workshop on High Energy Particle Phenomenology (WHEPP-8), Mumbai, India; *Pramana* **63**, 1359 (Conference Proceedings of WHEPP-8).
6. A. Kundu (2003): B Decays and Supersymmetry, Talk delivered at the 7th Workshop on High Energy Particle Phenomenology (WHEPP-7), Allahabad, India, 2002 [arXiv:hep-ph/0205100]; *Pramana* **60**, 345 (Conference Proceedings of WHEPP-7).

7. *A. Kundu (2000)*: New Physics Effects From B Meson Decays, Talk delivered at the 6th Workshop on High Energy Particle Phenomenology (WHEPP-6), Chennai, India, 2000 [arXiv:hep-ph/0003227]; *Pramana* **55**, 265 (Conference Proceedings of WHEPP-6).

#### **D) Experimental monograph**

1. *G. Aarons et al. (2007)*: International Linear Collider Reference Design Report, vol. 1, arXiv:0712.1950 [physics.acc-ph]; vol. 2, arXiv:0712.2356 [physics.ins-det].
2. *K. Abe et al. (ACFA Linear Collider Working Group) (2001)*: Particle Physics Experiments at JLC, KEK-REPORT-2001-11, arXiv:hep-ph/0109166.

#### **E) Unpublished but available in arXiv**

1. *J. Chakrabortty, A. Kundu, R. Maji, and T. Srivastava (2017)*: Cut and compute: Quick cascades with multiple amplitudes, arXiv:1703.07174 [hep-ph].
2. *A. Choudhury, A. Kundu, and B. Mukhopadhyaya (2016)*: The role of leptonic cascades in  $B_c \rightarrow B_s$  at the LHC, arXiv:1606.08402 [hep-ph].
3. *D. Choudhury, A. Datta, and A. Kundu (2010)*: Mutual consistency of the MINOS and Mini-BooNE Antineutrino Results and Possible CPT Violation, arXiv:1007.2923 [hep-ph].
4. *S. Nandi and A. Kundu (2004)*: Large Electroweak Penguins in  $B \rightarrow \pi\pi$  and  $B \rightarrow \pi K$ : Implication for New Physics, arXiv:hep-ph/0407061.

#### **Fellowships, Honours etc.**

- *Fellowship* – National Academy of Sciences, India, conferred in 2016.
- *Fellowship* — Indian Academy of Sciences, conferred in 2023.
- *Regular Associateship* — offered by the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, for the period 2005-2010.
- *Alexander von Humboldt Fellowship* — offered by the Alexander von Humboldt Foundation, Germany, awarded in Nov. 2001.
- *APS-IUSSTF Professorship* — offered by the American Physical Society, June 2012.
- *Distinguished Investigator Award* — offered by the Science and Engineering Research Board, India, June 2018.

#### **Main Research Fields and Areas of Interest**

- B Physics, including indirect searches for Physics beyond the Standard Model.
- Higgs Physics.
- Collider Physics.

#### **Ph.D. Guidance**

1. Dr. Jyoti Prasad Saha (awarded 2004, now Associate Professor, Kalyani U, WB)
2. Dr. Soumitra Nandi (awarded 2008, now Associate Professor, IIT Guwahati)

3. Dr. Biplob Bhattacherjee (awarded 2010, now Associate Professor, IISc Bengaluru)
4. Dr. Sunando Kumar Patra (awarded 2014, now Assistant Professor, Bangabasi Evening College)
5. Dr. Roshni Bose (awarded 2016, now Assistant Professor, Heritage College, Kolkata)
6. Dr. Indrani Chakraborty (awarded 2017, now Inspire Faculty, IIT Kanpur)
7. Dr. Swagata Ghosh (awarded 2021, now NPDF Postdoctoral Fellow, IIT Kharagpur)
8. Dr. Zaineb Calcuttawala (awarded 2022)
9. Poulami Mondal (thesis submitted 2022, now Postdoctoral Fellow at IIT Kanpur)

### **Post-doctoral Mentoring**

1. Dr. Rashidul Islam
2. Dr. Shibasis Roy

### **Summer Programme Mentoring**

1. Urmila Padmanabhan (1997)
2. Indrani Chakraborty (2010)
3. Somarpita Pradhan, Puja Saha, Dipsikha Debnath (2011)
4. Mahasweta Bagchi (2012)
5. Manibrata Sen, Abhishek Jana, Siddhartha Karmakar, Preetish Mishra (2013)
6. Argha Banerjee, Dhruba Dutta Chowdhury, Shashwata Ganguly (2014)
7. Prerna Grover, Kuntal Pal (2015)
8. Aradhana Devi, Sagardeep Talukdar (2017)
9. Suvam Maharana (2018)
10. Aman Dimri, Chandrakumar Chandravanshi, Drona Vatsyayan (2019)
11. Nisha Kelkar (2022)

### **Research Projects**

1. *Search for New Laws of Physics in the Present and Future Experiments with Elementary Particles* (September 2000 - March 2004), funded by BRNS, Department of Atomic Energy, Govt. of India [Principal Collaborator: Biswarup Mukhopadhyaya, Co-Investigator: Amitava Datta].
2. *Investigation of Some Outstanding Problems in the Higgs and Bottom Quark Sectors in the Standard Model of Particle Physics* (April 2001 - March 2004), funded by UGC, Govt. of India [Co-Investigator: Debajyoti Choudhury].
3. *Study of Bottom Quark Decays in the Standard Model and Study of Physics beyond the Standard Model* (April 2005 - March 2008), funded by DST, Govt. of India.

4. *Particle Physics beyond the Standard Model: Preparing for Upcoming Colliders* (April 2007 - March 2010), funded by BRNS, Department of Atomic Energy, Govt. of India [Principal Collaborator: Gautam Bhattacharyya, Co-Investigator: Anindya Datta].
5. *Physics beyond the Standard Model during the First Years of the LHC* (April 2009 - March 2013), funded by CSIR, Govt. of India.
6. *LHC and Physics beyond the Standard Model* (April 2013 - March 2017), funded by CSIR, Govt. of India.
7. *B Physics in the LHC Era* (April 2013 - March 2016), funded by DST, Govt. of India.
8. *New Physics at the LHC and Elsewhere* (April 2017 - March 2019), funded by SERB, Govt. of India.
9. *The Flavour Window to Physics beyond the Standard Model* (February 2020 - February 2023), funded by SERB, Govt. of India.
10. *Effective Field Theory for Physics beyond the Standard Model* (February 2020 - February 2023), funded by SERB, Govt. of India.
11. *The DRS Programme on Theoretical Nuclear Physics, Particle Physics, and Astrophysics* (April 2009 - March 2014) [As one of the five participating members of the Department of Physics, Univ. of Calcutta].

**Seminars, Workshops, Schools in last 3 years (2021–2023):**

**International Conferences, as invited speaker**

1. *Anomalies 2021*, IIT Hyderabad, Nov. 2021.
2. *Particle Physics: Phenomena, Puzzles, Promises*, ICTS Bengaluru, Nov. 2022.