

Publications in Journals – 2019

1. I.Tsekhanovich, A.N. Andreyev, K.Nishio, D. Denis-Petit, K.Hirose, H.Makii, Z.Matheson, K.Morimoto, K.Morita, W.Nazarewicz, R.Orlandi, J.Sadhukhan, T.Tanaka, M. Vermeulen, M.Warda, “Observation of the competing fission modes in ^{178}Pt ”, *Phys. Lett. B* 790 (2019) 583
2. M. Shareef, E. Prasad, A. Jhingan, N. Saneesh, K. S. Golda, A. M. Vinodkumar, Mohit Kumar, A. Shamlath, P. V. Laveen, A. C. Visakh, M. M. Hosamani, S. K. Duggi, P. Sandya Devi, G. N. Jyothi, A. Tejaswi, P. N. Patil, Jhila Sadhukhan, P. Sugathan, A. Chatterjee, and Santanu Pal, “Nuclear dissipation at high excitation energy and angular momenta in reaction forming ^{227}Np ” *Phys. Rev. C* 99 (2019) 024619
3. Shashi C.L. Srivastava, Arul Lakshmi narayan, Steven Tomsovic, Arnd Bäcker, “Ordered level spacing probability densities” *J. Phys. A: Math. Theor.* 52 (2019) 25101
4. Vinay Singh, Joydev Lahiri, Debasis Bhowmick, D. N. Basu, “Big-bang nucleosynthesis and primordial lithium abundance problem” *J. Expt. and Theor. Phys.* 155 (2019) 832
5. Vinay Singh, Debasis Atta, Md. A. Khan, D. N. Basu, “Astrophysical S-factor for the deep sub-barrier fusion reactions of light nuclei” *Nuclear Physics A* 986 (2019) 98
6. S. A. Giuliani, Z. Matheson, W. Nazarewicz, E. Olsen, P.-G. Reinhard, J. Sadhukhan, B. Schuetrumpf, N. Schunck, P. Schwerdtfeger, “Colloquium: Superheavy elements: Oganesson and beyond” *Rev. Mod. Phys.* 91 (2019) 11001
7. Nishant Kumar, D. C. Biswas, T.K. Ghosh, J. Sadhukhan, B. N. Joshi, Y. K. Gupta, R. P. Vind, G. K. Prajapati, Shradha Dubey, L. S. Danu, S. Mukhopadhyay, K. Mahata, B. V. John, and S. Sodaye, “Role of quasifission in fission fragment mass distribution for $^{28}\text{Si} + ^{197}\text{Au}$ reaction” *Phys. Rev. C* 99 (2019) 41602

8. S. S. Alam, T. Bhattacharjee, D. Banerjee, A. Saha, S. Das, M. Saha Sarkar, and S. Sarkar, “Lifetimes and transition probabilities for the low-lying states in ^{131}I and ^{132}Xe ” *Phys. Rev. C* 99 (2019) 14306
9. E. M. Kozulin, G. N. Knyazheva, T. K. Ghosh, A. Sen, I. M. Itkis, M. G. Itkis, K. V. Novikov, I. N. Diatlov, I. V. Pchelintsev, C. Bhattacharya, S. Bhattacharya, K. Banerjee, E. O. Saveleva and I. V. Vorobiev, “Fission and quasifission of the composite system $Z = 114$ formed in heavy-ion reactions at energies near the Coulomb barrier” *Phys. Rev. C* 99 (2019) 14616
10. Balaram Dey, N.Quang Hung, Deepak Pandit, Srijit Bhattacharya, N.Dinh Dang,L.T.Quynh Huong, Debasish Mondal, S. Mukhopadhyay, Surajit Pal, A.De, S. R. Banerjee, “S-shaped heat capacity in an odd–odd deformed nucleus” *Phys. Lett. B* 789 (2019) 634
11. Deepak Pandit, Srijit Bhattacharya, Debasish Mondal, Balaram Dey, S. Mukhopadhyay, Surajit Pal, A. De, and S. R. Banerjee, “Role of fluctuations in a thermal phase transition in a nucleus probed via the giant dipole resonance” *Phys. Rev. C* 99 (2019) 24315
12. A Saha, T Bhattacharjee , D Curien, J Dudek, I Dedes, K Mazurek, A Gózdź, S Tagami, Y R Shimizu, S R Banerjee, S Rajbanshi, A Bisoi, G De Angelis, Soumik Bhattacharya, S Bhattacharyya, S Biswas, A Chakraborty, S Das Gupta, B Dey, A Goswami, D Mondal, D Pandit, R Palit, T Roy, R P Singh, M Saha Sarkar, S Saha and J Sethi, “Spectroscopy of a tetrahedral doubly magic candidate nucleus $^{160}_{70}\text{Yb}90$ ” *J. Phys. G: Nucl. Part. Phys.* 46 (2019) 55102
13. Paritosh Sing Babu and Vaishali Naik, “Study of slowing down and thermalization of externally injected ion beams in electron cyclotron resonance ion source plasmas” *Phys. Plasmas* 26 (2019) 33101
14. Dipak Bhowmik and Prasanta Karmakar, “Tailoring and investigation of surface chemical nature of virgin and ion beam modified muscovite mica” *Surf. Interface Anal.* 51 (2019) 667
15. Dipak Bhowmik, Manabendra Mukherjee and Prasanta Karmakar, “Presence of reactive impurities in Ar^+ ion beam plays a key role for Si ripple formation” *Nucl. Inst. and Meth. Phys. B* 444 (2019) 54

16. Subhash Ghosh, and Prasanta Karmakar, "In-situ analysis of ion-induced physicochemical change of Si surface by secondary electron yield detection" Nucl. Inst. and Meth. Phys. B 441 (2019) 56
17. Tapatee Kundu Roy, "Estimation of fracture toughness in ZnO ceramics from indentation crackopening displacement measurements" Measurement 137 (2019) 588
18. Tapatee Kundu Roy, T. K. Bhattacharyya, S. K. Thakur, "Role of sintering temperature on microstructure and nonlinear electrical properties of 0.1 mol.% Nb₂O₅ added ZnO–V₂O₅ varistor ceramics" Journal of Materials Science: Materials in Electronics 30 (2019) 5640
19. S. Roy, H. Luitel and Dirtha Sanyal, "First principle analysis for magnetic properties of noble metal doped rutile TiO₂" Comp. Cond. Matt., 18 (2019) e00349
20. H. Luitel, P Chettri, A Tiwari and Dirtha Sanyal, "Experimental and first principle study of room temperature ferromagnetism in carbon-doped rutile TiO₂" Mat. Res. Bull.110 (2019) 13
21. K. L. Routray, Dirtha Sanyal and D. Behera, "Gamma irradiation induced structural, electrical, magnetic and ferroelectric transformation in bismuth doped nanosized cobalt ferrite for various applications" Mat. Res. Bull. 110 (2019) 126
22. Argha Dutta, N. Gayathri, P.Mukherjee, Santu Dey, Sudipta Mandal, Tapatee Kundu Roy, Apu Sarkar, S.Neogy, Archana Sagdeo, "An approach in the analysis of microstructure of proton irradiated T91 through XRD/LPA using synchrotron and laboratory source" Journal of Nuclear Materials 514 (2019) 161-170
23. Gargi Choudhuri, Perna Mishra, S. Basu, N. Gayathri, P.Mukherjee, V.Kain, D.Mukherjee, D.Srivastava, G.K.Dey, "Effect of ion and neutron irradiation on oxide of PHWR fuel tube material" Journal of Nuclear Materials 514 (2019) 12—27
24. Sandip Kumar De, Subrata Mondal, Pintu Sen, Uttam Pal, Biswarup Pathak, Kuber Singh Rawat, Munmun Bardhan, Maireyee Bhattacharya, Biswarup Satpati, Amitabha De, Dulal Senapati, "Crystal Defect Induced Facet Dependent Electrocatalytic Activity of Anisotropic 3D Gold Nanoflower" Nanoscale 10 (2019) 11091-11102

25. J. Dhar, S. Sil, N. A. Hoque, A. Dey, S. Das, P. P. Ray and D. Sanyal, "Lattice-Defect-Induced Piezo Response in Methylammonium- Lead-Iodide Perovskite Based Nanogenerator" *Chemistry Select* 3 (2019) 5304
26. Rajendra Nath Patra, Rama Narayan Singaraju, Somnath Dalal, Saikat Biswas Yogendra P. Viyogi, Tapan K. Nayak, "Characteristic study of a quadruple GEM detector in different electric field configurations" *Nucl. Inst. and Meth. Phys. Res. A* 936 (2019) 433-435
27. Jubin Mitra; Erno David; Eduardo B Mendes; Shuaib A Khan; Tivadar Kiss; Sophie Baron; Alex Kluge; Tapan Nayak, "Trigger and Timing Distributions using the TTC-PON and GBT Bridge Connection in ALICE for the LHC Run 3 Upgrade" *Nucl. Inst. and Meth. Phys. Res. A* 922 (2019) 119
28. Samrangy Sadhu and Premomoy Ghosh, "Anomalous features of particle production in high-multiplicity events of pp collisions at the LHC energies" *Phys. Rev. D* 99 (2019) 34020
29. Jubin Mitra, E. Mendes and Sophie Baron, "Effect of repetitive reset, temperature variation and frequency offset on the performance of PLL for the LHC experiments" *JINST* 14 (2019) 2001
30. N. Vijay Ponraj, A. Azhagurajan, S. C. Vettivel, X. SahayaShajan, P. Y. Nabhiraj, A. Haiterlenin, "Modeling and Optimization of the Effect of Sintering Parameters on the Hardness of Copper/Graphene Nanosheet Composites by Response Surface Methodology" *Metal Science and Heat Treatment* 60 (2019) 1-5
31. Zachary Matheson, Samuel A. Giuliani, Witold Nazarewicz, Jhilam Sadhukhan, and Nicolas Schunck, "Cluster radioactivity of $^{294}118\text{Og}176$ " *Phys. Rev. C* 99 (2019) 41304
32. T N. K. Rai, A. Gandhi, Ajay Kumar, N. Saneesh, M. Kumar, G. Kaur, A. Parihari, D. Arora, K. S. Golda, A. Jhingan, P. Sugathan, T. K. Ghosh, Jhilam Sadhukhan, B. K. Nayak, Nabendu K. Deb, S. Biswas, and A. Chakraborty, "Measurement of neutron multiplicity to investigate the role of entrance channel parameters on the nuclear dissipation" *Phys. Rev. C* 100 (2019) 14614

33. G. Chaudhuri and S. Mallik, “Effect of liquid drop model parameters on nuclear liquid-gas phase transition” *Phys. Rev. C* 99 (2019) 54602
34. Debojit Sarkar, Supriya Das, Subhasis Chattopadhyay, “Investigating the particle production at intermediate p_T using identified triggered correlation in pp collisions at $\sqrt{s} = 7$ TeV” *Nuclear Physics. A* 989 (2019) 13
35. S. Roy, D. Das, Tapatee Kundu Roy, “Nonlinear electrical properties of ZnO-V₂O₅ based rare earth (Er₂O₃) added varistors” *J. of elec. Materials* 48 (2019) 5650
36. H Luitel and D Sanyal, “Ferromagnetism in p-block-element doped ZnO: An ab-initio approach” *Comp. Cond. Matt.* 21 (2019) e00393
37. Supriyo Ghosh, Kumar S. Gupta, and Shashi C. L. Srivastava, “Exact relaxation dynamics and quantum information scrambling in multiply quenched harmonic chains” *Phys. Rev. E* 100 (2019) 12215
38. T.K. Rana, S. Bhattacharya, C. Bhattacharya, S. Manna, Samir Kundu, K. Banerjee, R. Pandey, Pratap Roy, A. Dhal, G. Mukherjee, V. Srivastava, A. Dey, A. Chaudhuri, T.K. Ghosh, A. Sen, Md.A. Asgar, T. Roy, J.K. Sahoo, J.K. Meena, A.K. Saha, R.M. Saha, M. Sinha, Amit Roy, “New high precision study on the decay width of the Hoyle state in ¹²C” *Physics Letters B* 793 (2019) 130
39. S. Nandi, G. Mukherjee, T. Roy, R. Banik, A. Dhal, Soumik Bhattacharya, S. Bhattacharyya, C. Bhattacharya, Md.A.Asgar, H. Pai, S. Rajbanshi, Pratap Roy, T. K. Ghosh, K. Banerjee, T. K. Rana, Samir Kundu, S. Manna, R. Pandey, A. Sen, S. Pal, S. Mukhopadhyay, D. Pandit, D. Mandal, and S. R. Banerjee, “Effect of neutron alignments on the structure of ¹⁹⁷Tl” *Phys. Rev. C* 99 (2019) 54312
40. S. Saha, R. Palit, J. Sethi, S. Biswas, P. Singh, S. Nag, A. K. Singh, I. Ragnarsson, F. S. Babra, U. Garg, A. Goswami, E. Ideguchi, H. C. Jain, S. Kumar, Md. S. R. Laskar, G. Mukherjee, Z. Naik, and C. S. Palshetkar, “Observation of rotation about the longest principal axis in ⁸⁹Zr” *Phys. Rev. C* 99 (2019) 54301

41. A. Banerjee, S. Mandal, Pratap Roy, S. Mukhopadhyay, G. Mukherjee, M. Kumar, A. Jhingan, R. Palit, "A compact scintillator based position sensitive detector system for gamma ray tracking applications" Nucl. Inst. and Meth. Phys. Res. A 930 (2019) 100
42. K. Banerjee, D. J. Hinde, M. Dasgupta, E. C. Simpson, D. Y. Jeung, C. Simenel, B. M. A. Swinton-Bland, E. Williams, P. Carter, K. J. Cook, H. M. David, Ch. E. Düllmann, J. Khuyagbaatar, B. Kindler, B. Lommel, E. Prasad, C. Sengupta, J. F. Smith, K. Vo-Phuoc, J. Walshe, and A. Yakushev, "Mechanisms Suppressing Superheavy Element Yields in Cold Fusion Reactions" Phys. Rev. Lett 122 (2019) 232503
43. S. Biswas, A. Lemasson, M. Rejmund, A. Navin, Y. H. Kim, C. Michelagnoli, I. Stefan, R. Banik, P. Bednarczyk, S. Bhattacharya, S. Bhattacharyya, E. Clément, H. L. Crawford, G. de France, P. Fallon, G. Frémont, J. Goupil, B. Jacquot, H. J. Li, J. Ljungvall, A. Maj, L. Ménager, V. Morel, R. Palit, R. M. Pérez-Vidal, J. Ropert, D. Barrientos, G. Benzoni, B. Birkenbach, A. J. Boston, H. C. Boston, B. Cederwall, J. Collado, D. M. Cullen, P. Désesquelles, C. Domingo-Pardo, J. Dudouet, J. Eberth, V. González, L. J. Harkness-Brennan, H. Hess, A. Jungclaus, W. Korten, M. Labiche, A. Lefevre, R. Menegazzo, D. Mengoni, B. Million, D. R. Napoli, A. Pullia, B. Quintana, D. Ralet, F. Recchia, P. Reiter, F. Saillant, M. D. Salsac, E. Sanchis, O. Stezowski, Ch. Theisen, J. J. Valiente-Dobón, and M. Zielinska, "Effects of one valence proton on seniority and angular momentum of neutrons in neutron-rich 122-13151Sb isotopes" Phys. Rev. C 99 (2019) 64302
44. S. Ghosh, A. Mukherjee, P. Roy and S. Sarkar, "General structure of the neutral ρ meson self-energy and its spectral properties in a hot and dense magnetized medium" Physical Review D 99 (2019) 96004
45. C. A. Islam, A. Bandyopadhyay, P. Roy and S. Sarkar, "Spectral function and dilepton rate from a strongly magnetized hot and dense medium in light of mean field models" Physical Review D 99 (2019) 94028
46. N. Chaudhuri, S. Ghosh, M. Mandal, S. Sarkar and P. Roy, "Effect of the anomalous magnetic moment of quarks on the phase structure and mesonic properties in the NJL model" Physical Review D 99 (2019) 116025

47. U. Gangopadhyaya, S. Ghosh and S. Sarkar, "In-medium thermal conductivity and diffusion coefficients of a hot hadronic gas mixture" *Int. J. Mod. Phys. E* 28 (2019) 1950035
48. ALICE Collaboration, "Transverse momentum spectra and nuclear modification factors of charged particles in Xe-Xe collisions at $\sqrt{s_{NN}} = 5.44$ TeV" *Phys. Lett. B* 788 (2019) 166-179
49. ALICE Collaboration, "Measuring K^0S^{\pm} interactions using pp collisions at $\sqrt{s_{NN}}=7$ TeV" *Phys. Lett. B* 790 (2019) 22
50. ALICE Collaboration, "Y suppression at forward rapidity in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV" *Phys. Lett. B* 790 (2019) 89
51. ALICE Collaboration, "Direct photon elliptic flow in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV" *Nucl. Phys. A* 982 (2019) 195-197
52. ALICE Collaboration, "Charged jet cross section and fragmentation in proton-proton collisions at $\sqrt{s_{NN}} = 7$ TeV" *Phys. Rev. D* 99 (2019) 12016
53. ALICE Collaboration, "Direct photon production at low transverse momentum in proton-proton collisions at $\sqrt{s_{NN}}=2.76$ and 8 TeV " *Phys. Rev. C* 99 (2019) 24912
54. ALICE Collaboration, "Dielectron and heavy-quark production in inelastic and high-multiplicity proton-proton collisions at $\sqrt{s_{NN}} = 13$ TeV " *Phys. Lett. B* 788 (2019) 505
55. ALICE Collaboration, "Multiplicity dependence of light-flavor hadron production in pp collisions at $\sqrt{s_{NN}} = 7$ TeV" *Phys. Rev. C* 99 (2019) 24906
56. ALICE Collaboration, "Suppression of $\Lambda(1520)$ resonance production in central Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV " *Phys. Rev. C* 99 (2019) 24905
57. ALICE Collaboration, "p-p, p- Λ and Λ - Λ correlations studied via femtoscopy in pp reactions at $\sqrt{s_{NN}} = 7$ TeV" *Phys. Rev. C* 99 (2019) 24001
58. ALICE Collaboration, "Measurement of dielectron production in central Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV" *Phys. Rev. C* 99 (2019) 24002

59. ALICE Collaboration, “Event-shape engineering for the D-meson elliptic flow in mid-central Pb-Pb collisions at $\sqrt{s_{NN}}=5.02$ TeV” JHEP 1902 (2019) 150
60. ALICE Collaboration, “Azimuthal anisotropy of heavy-flavour decay electrons in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV ” Phys. Rev. Lett. 122 (2019) 72301
61. ALICE Collaboration, “Centrality and pseudorapidity dependence of the charged-particle multiplicity density in Xe-Xe collisions at $\sqrt{s_{NN}} = 5.44$ TeV” Phys. Lett. B 790 (2019) 35-48
62. ALICE Collaboration, “Lambda production in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV” Phys. Lett. B 793 (2019) 212
63. ALICE Collaboration, “Measurements of D0, D+, D*+, and D+ production in pp collisions at $\sqrt{s_{NN}} = 5.02$ TeV with ALICE” Eur Phys. J. C 79 (2019) 5
64. ALICE Collaboration, “Relative particle yield fluctuations in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV” Eur Phys. J. C 79 (2019) 236
65. ALICE Collaboration, “Charged particle pseudorapidity density at midrapidity in p_pb collisions at $\sqrt{s_{NN}} = 8.16$ TeV” Eur Phys. J. C 79 (2019) 307
66. ALICE Collaboration, “Jet fragmentation transverse momentum measurements from di-hadron correlations in $\sqrt{s_{NN}} = 7$ TeV pp and $\sqrt{s_{NN}} = 5.02$ TeV” JHEP 2019 (2019) 16
67. STAR Collaboration, “Constraining the initial conditions and temperature dependent transport with three-particle correlations in Au+Au collisions” Phys. Lett. B 790 (2019) 81-88
68. STAR Collaboration, “The Proton-Omega correlation function in Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV” Phys. Lett. B 790 (2019) 490
69. STAR Collaboration, “Measurement of the longitudinal spin asymmetries for weak boson production in proton-proton collisions at $\sqrt{s} = 510$ GeV” Phys. Rev. D 99 (2019) 51102

70. STAR Collaboration, “Centrality and transverse momentum dependence of D0-meson production at mid-rapidity in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV” *Phys. Rev. C* 99 (2019) 34908
71. STAR Collaboration, “Beam energy dependence of (anti-)deuteron production in Au+Au collisions at RHIC” *Phys. Rev. C* 99 (2019) 64905
72. STAR Collaboration, “Collision energy dependence of second-order off-diagonal and diagonal cumulants of net-charge, net-proton and net-kaon multiplicity distributions in Au+Au collisions” *Phys. Rev. C* 100 (2019) 14902
73. STAR Collaboration, “Azimuthal harmonics in small and large collision systems at RHIC top energies” *Phys. Rev. Lett.* 122 (2019) 172301
74. STAR Collaboration, “Collision Energy Dependence of pT Correlations in Au+Au Collisions at RHIC” *Phys. Rev. C* 99 (2019) 44918
75. Kavita, K. S. Golda, T. K. Ghosh, A. Jhingan, P. Sugathan, A. Chatterjee, B. R. Behera, Ashok Kumar, Rakesh Kumar, N. Saneesh, M. Kumar, Abhishek Yadav, C. Yadav, Neeraj Kumar, Akashrup Banerjee, A. Rani, S. K Duggi, Rakesh Dubey, Kavita Rani, Shoaib Noor, Jaimin Acharya, and Hardev Singh, “Fusion-fission dynamics of 188, 190Pt through fission fragment mass distribution measurements”, *Phys. Rev. C* 100 (2019) 024626
76. S. Mallik, G. Chaudhuri, and F. Gulminelli, “Sensitivity of the evaporation residue observables to the symmetry energy” *Phys. Rev. C* 100 (2019) 024611
77. T. K. Maiti, S. Pala, B. Kundu, P. Ghosh, “Evaluation of an existing helium liquefier in refrigerator and mixed-mode operation through exergy analysis”, *Cryogenics* 103 (2019) 102977
78. Sujan Kumar Roy, Somnath Mukhopadhyay, Joydev Lahiri and D. N. Basu, “Relativistic Thomas-Fermi equation of state for magnetized white dwarfs” *Phys. Rev. D* 100 (2019) 063008
79. A. R. Abraham, B. Raneesh, P.M.G. Nambissan, Dirtha Sanyal, S. Thomas, N. Kalarikkal, “Defects characterisation and studies of structural properties of sol-gel synthesised MgFe₂O₄ nanocrystals through positron annihilation and supportive spectroscopic methods” *Philosophical Magazine* (2019) 1-30

80. Sandip Pal, Ananda Das, Sushanta Nandy, Ranjan Kar, and Jaharlal Ghosh, "Development of a near-infrared tuneable diode laser absorption spectrometer for trace moisture measurements in helium gas" *Review of Scientific Instruments* 90 (2019) 103105
81. ALICE Collaboration, "Coherent J/ψ photoproduction at forward rapidity in ultra-peripheral Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV", *Physics Letters B*, 798 (2019) 134926
82. ALICE Collaboration, "First Observation of an Attractive Interaction between a Proton and a Cascade Baryon", *Phys. Rev. Lett.* 123 (2019) 112002
83. ALICE Collaboration, "Production of muons from heavy-flavour hadron decays in pp collisions at $\sqrt{s} = 5.02$ TeV", *J. High Energ. Phys.* (2019) 2019: 8
84. ALICE Collaboration, "Measurement of the production of charm jets tagged with D^0 mesons in ppcollisions at $\sqrt{s} = 7$ TeV", *JHEP* 1908 (2019) 133
85. STAR Collaboration, "Charge-dependent pair correlations relative to a third particle in p+Au and d+Au collisions at RHIC", *Phys. Lett. B* 798 (2019) 134975
86. STAR Collaboration, "Longitudinal double-spin asymmetry for inclusive jet and dijet production in pp collisions at $\sqrt{s} = 510$ GeV", *Phys. Rev. D* 100 (2019) 52005
87. STAR Collaboration, "Polarization of Lambda (anti-Lambda) hyperons along the beam direction in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV", *Phys. Rev. Lett.* 123 (2019) 132301
88. STAR Collaboration, "Measurements of the transverse-momentum-dependent cross sections of J/ψ production at mid-rapidity in proton + proton collisions at $\sqrt{s} = 510$ and 500 GeV with the STAR detector", *Phys. Rev. D* 100 (2019) 52009
89. STAR Collaboration, "Observation of excess J/ψ yield at very low transverse momenta in Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV and U+U collisions at $\sqrt{s_{NN}} = 193$ GeV", *Phys. Rev. Lett.* 123 (2019) 132302
90. ALICE Collaboration, "Charged-particle production as a function of multiplicity and transverse sphericity in pp collisions at $\sqrt{s} = 5.02$ and 13 TeV", *Eur. Phys. J. C* 79 (2019) 857

91. ALICE Collaboration, “Two particle differential transverse momentum and number density correlations in p-Pb and Pb-Pb at the LHC”, Phys. Rev. C 100 (2019) 044903
92. ALICE Collaboration, “ 3Λ And 3Λ H lifetime measurement in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV via two-body decay”, Phys. Lett. B 797 (2019) 134905
93. ALICE Collaboration, “Study of the Λ - Λ interaction with femtoscopy correlations in and p-Pb collisions at the LHC”, Phys. Lett. B 797 (2019) 134822
94. ALICE Collaboration, “Inclusive J/ψ production at mid-rapidity in pp collisions at $\sqrt{s} = 5.02$ TeV”, JHEP 2019 (2019) 84
95. ALICE Collaboration, “Event-shape and multiplicity dependence of freeze-out radii in pp collisions at $\sqrt{s} = 7$ TeV”, JHEP 2019 (2019) 108
96. ALICE Collaboration, “Investigations of Anisotropic Flow Using Multiparticle Azimuthal Correlations in pp, p-pb, Xe-Xe, and Pb-Pb Collisions at the LHC”, Phys. Rev. Lett. 123 (2019) 142301
97. STAR Collaboration, “Measurement of inclusive J/ψ suppression in Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV through the dimuon channel at STAR”, Phys. Lett. B 797 (2019) 134917
98. STAR Collaboration, “First observation of the directed flow of D^0 and D^0 bar in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV”, Phys. Rev. Lett. 123 (2019) 162301
99. Akira Ono, Jun Xu, Maria Colonna, Pawel Danielewicz, Che Ming Ko, Manyee Betty Tsang, Yong-Jia Wang, Hermann Wolter, Ying-Xun Zhang, Lie-Wen Chen, Dan Cozma, Hannah Elfner, Zhao-Qing Feng, Natsumi Ikeno, Bao-An Li, Swagata Mallik, Yasushi Nara, Tatsuhiko Ogawa, Akira Ohnishi, Dmytro Oliinychenko, Jun Su, Taesoo Song, Feng-Shou Zhang and Zhen Zhang, “Comparison of heavy-ion transport simulations: Collision integral with pions and Δ resonances in a box”, Phys. Rev. C 100 (2019) 044617
100. M.Z.A. Naser, S. Dechoudhury, D.P. Dutta, S.K. Thakur, S. Haque, V. Naik and A. Bandyopadhyay, “Development and testing of radio frequency modulated electron Gun at VECC, Kolkata”, Journal of Instrumentation 14 (2019) P11027

101. Subhasis Chattopadhyay, R K Bhandari, Paolo Giubellino, “Megaprojects: 2 Facility for Antiproton and Ion Research*”, Resonance 24 (2019) 1427
102. Javed Akhter, Sandip Pal and Chinmay Nandi, “CFD analysis of the evaporating two-phase flow in the slug flow regime of a cryogenic fluid in a microchannel”, Indian Journal of Cryogenics 44 (2019) 155
103. N. Gayathri, Kalipada Das, P.Mukherjee, Ranjini Menon and P.Y.Nabhiraj, “Observation of radiation enhanced phase formation and subsequent dissolution at very high doses in Ar⁹⁺ ion irradiated Ti-modified stainless steel” Radiation Physics and Chemistry 165 (2019) 108379
104. A. Chakrabarti, S. Dechoudhury, D. Bhowmick, V. Naik, “Signature of bi-modal fission in Uranium nuclei”, Journal of Physics G 46 (2019) 125105
105. A. Chakrabarti and A. Ray, “Exploring hyperfine levels of non-Rydberg excited states in a Ξ system by using Autler Townes Splitting”, Applied Optics (2019)
106. S. Roy, H. Luitel and D. Sanyal, “Magnetic properties of transition metal doped SnO₂: A detailed theoretical study”, Comp. Cond. Mat. 21 (2019) e00393
107. S. Roy, H. Luitel and D. Sanyal, “First-principles analysis of ferromagnetic properties of molybdenum-doped wide-band-gap oxides”, Phil. Mag. Let. 99 (2019) 326
108. S. Roy, T Kundu Roy, D. Das, “Grain growth kinetics of Er₂O₃ doped ZnO-V₂O₅ based varistor ceramics”, Ceram. International , 45 (2019) 24835
109. A. Sarkar, M. Chakrabarti, D Sanyal, N. Gogurla, P. Kumar, R. S. Brusa and C. Hugenschmidt, “Depth resolved defect characterization of energetic ion irradiated ZnO by positron annihilation techniques and photoluminescence”, J of Phys. Cond. Matt. 32 (2019) 85703
110. Tilak Kumar Ghosh, “Into the fission valley of ‘magic nucleus’ polonium”, Current Science 116 (2019) 25
111. S Bhattacharya & C Bhattacharya, “Nuclear reaction studies using the cyclotron at VECC: A Review”, Indian Journal of Pure & Applied Physics 57 (2019) 690-695

112. Samir Kundu, T.K. Rana, C. Bhattacharya, K. Banerjee, R. Pandey, Santu Manna, J.K. Meena, A.K. Saha, J.K. Sahoo, P. Dhara, A. Dey, D. Gupta, T.K. Ghosh, Pratap Roy, G. Mukherjee, R. Mandal Saha, S. Roy, S.R. Bajirao, A. Sen, S. Bhattacharya, "ChAKRA : The high resolution charged particle detector array at VECC", Nucl. Inst. and Meth. Phys. Res. A 943 (2019) 162411
113. S. Das, A. De, B. Dey, S. Sharma, A. Adhikari, S.S. Alam, A. Gupta, Y. Sapkota, A. Das, A. Saha, D. Pramanik, T. Bhattacharjee, A. Bisoi, S. Sarkar and M. Saha Sarkara, "Study of radioactivity built-up and decay with singles time-stamped data", Journal of Instrumentation 14 (2019) T09006
114. Md. A. Asgar, G. Mukherjee, T. Roy, S. Nandi, G.H. Bhatt, J.A. Sheikh, R. Palit, S. Bhattacharyya, Soumik Bhattacharya, C. Bhattacharya, A. Dhal, T.K. Ghosh, A. Chaudhuri, K. Banerjee, Samir Kundu, T.K. Rana, Pratap Roy, R. Pandey, S. Manna, J.K. Meena, S. Saha, S. Biswas, J. Sethi, P. Singh, and D. Choudhury, "Band structures in ^{169}Tm and the structures of Tm isotopes around $N = 98$ ", Eur. Phys. J. A 55 (2019) 175
115. Sajad Ali, S. Rajbanshi, R. Raut, H. Pai, Y.Y. Wang, G. Gangopadhyay, J. Meng, R. Palit, Somnath Nag, Abhijit Bisoi, S. Saha, J. Sethig, S. Bhattacharyya, S. Chattopadhyay, G. Mukherjee, A.K. Singh, T. Trivedi, A. Goswami, "Evidence of the octupole correlation between the shears bands in ^{142}Eu ", Phys. Lett. B 798 (2019) 134960
116. K K Rajesh, M M Musthafa, N Madhavan, S Nath, J Gehlot, Jhilaam Sadhukhan, P Mohamed Aslam, E Prasad, MM Hosamani, T Varughese, Abhishek Yadav, Vijay R Sharma, Vishal Srivastava, Md Moin Shaikh, M Shareef, A Shamlath, PV Laveen, "Measurement of fusion evaporation residue cross sections in the $^{48}\text{Ti} + ^{138}\text{Ba}$ reaction", Phys. Rev. C 100 (2019) 44611
117. Vinay Singh, Joydev Lahiri, D. N. Basu, "Theoretical exploration of S-factors for nuclear reactions of astrophysical importance", Nuclear Physics A 987 (2019) 260
118. S. Nath, V. Naik, A. Chakrabarti and A. Ray, "Discriminating electromagnetically induced transparency from Autler-Townes splitting in a Ξ system", J. of the Optical Society of America B 36 (2019) 2610
119. Partha Pratim Bhaduri, Nicolas Borghini, Amaresh Jaiswal and Michael Strickland, "Anisotropic escape mechanism and elliptic flow of bottomonia", Phys. Rev. C 100 (2019) 51901

120. Sudhir P. Rode, Partha Pratim Bhaduri and Ankhi Roy, "Anisotropic flow of charged and identified hadrons at FAIR energies and its dependence on the nuclear equation of state", *Eur. Phys. J. A* 55 (2019) 216
121. A. I. Sheikh and Zubayer Ahammed, "Estimation of shear viscosity to entropy density ratio of the QGP including the effects of chromo-electromagnetic field fluctuations", *Nuclear Physics A* 986 (2019) 48
122. M. Shiroya, R. Ganai, Z. Ahammed and S. Chattopadhyay, "Charge measurement of oil-free single gap Bakelite Resistive Plate Chamber", *Journal of Instrumentation* 14 (2019) P08007
123. R. Ganai, M. Mondal, M. K. Shiroya, Z. Ahammed and S. Chattopadhyay, "Performance Studies of Bakelite Multi-gap Resistive Plate Chamber with Cosmic Rays", *Journal of Instrumentation*, 14 (2019) C06010
124. R. Ganai, M. Mondal, Z. Ahammed and S. Chattopadhyay, "Timing Studies of Bakelite Multi-gap Resistive Plate Chamber", *Nucl. Inst. and Meth. Phys. Res. A* 936 (2019) 505-506
125. Shuaib Ahmad Khan, Jubin Mitra, Tushar Kanti Das, Tapan K. Nayak, "Optimization of multi-gigabit transceivers for high speed data communication links in HEP Experiments", *Nucl. Inst. and Meth. Phys. Res. A* 927 (2019) 14-23
126. ALICE Collaboration, "Measurement of prompt D0, D+, D*+, and D+s production in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV", *JHEP* 92 (2019) 2019
127. ALICE Collaboration, "Measurement of charged jet cross section in pp collisions at $\sqrt{s}=5.02$ TeV", *Phys. Rev. D* 100 (2019) 92004
128. ALICE Collaboration, "Measurement of the inclusive isolated photon production cross section in pp collisions at $\sqrt{s} = 7$ TeV", *Eur. Phys. J. C* 79 (2019) 896
129. ALICE Collaboration, "Measurement of Y (1S) elliptic flow at forward rapidity in Pb-Pb collisions at $\sqrt{s_{NN}}=5.02$ TeV", *Phys. Rev. Lett.* 123 (2019) 192301
130. ALICE Collaboration, "Measurement of jet radial profiles in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV", *Phys. Lett. B* 796 (2019) 204-219
131. ALICE Collaboration, "Multiplicity dependence of (anti-)deuteron production in pp collisions at $\sqrt{s} = 7$ TeV", *Phys. Lett. B* 794 (2019) 50-63

132. ALICE Collaboration, "Analysis of the apparent nuclear modification in peripheral Pb-Pb collisions at 5.02 TeV", *Phys. Lett. B* 793 (2019) 430-432
133. ALICE Collaboration, "Energy dependence of exclusive J/ψ photoproduction off protons in ultra-peripheral p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV", *Eur. Phys. J. C* 79 (2019) 402
134. A Goswami, Atanu Dutta and Arup Bandyopadhyay, "Study of orbit properties and intense beam dynamics in a high current separated sector proton cyclotron", *Journal of Instrumentation* 14 (2019) 3027
135. S.K.Sharma, K.Sudarshana, R.Menon, P.Y.Nabhiraj, P.K.Pujari, "He and O ion implantation induced defects in Si crystal studied using slow positron annihilation spectroscopy", *Nucl. Inst. and Meth. Phys. Res. B* 453 (2019) 1
136. K R Karthikeyan, K Thanigai Arul, J Ramana Ramya, P Y Nabhiraj, R. Menon, J B M Krishna, S Narayan Kalkura, "Core/shell structures on argon ions implanted polymer based zinc ions incorporated HAp nanocomposite coatings", *Materials Science in Semiconductor Processing* 104 (2019) 104687
137. I. Banerjee, M. De, G. Dey, R. Bharti, S. Chattopadhyay, N. Ali, P. Chakrabarti, "A peptide-modified solid lipid nanoparticle formulation of paclitaxel modulates immunity and outperforms dacarbazine in a murine melanoma model†", *Biomaterials Science* 7 (2019) 1161-1178
138. Debashis Banerjee, Dhanadeep Dutta, Sk. Wasim Raja, S. V. Thakare, "Effect of nanopore on hydration of hafnium investigated by TDPAC as a hyperfine tool", *Hyperfine Interact* 240 (2019) 68
139. Debashis Banerjee, Chandi Charan Dey, Sk. Wasim Raja, Ram Sewak, S. V. Thakare, Raghunath Acharya, Pradeep Kumar Pujari, "Stability of monoclinic phase in pure and Gddoped HfO₂: A hyperfine interaction study", *Hyperfine Interact* 240 (2019) 78
140. Sankha Chattopadhyay, Sujata Das, Madhusmita, Md. Nayer Alam, Sharmila Banerjee, "Purification of ⁹⁹Mo and ^{99m}Tc from radioactive traces of Nb, Zr, and Y impurities: method applicable in the purification of the spent ¹⁰⁰/₉₉Mo–^{99m}Tc generator", *J. Radioanal. Nucl. Chem.* 322 (2019) 809-815

141. Sandip Kumar De, Subrata Mondal, Abhijit Roy, Sourabh Kumar, Manabendra Mukherjee, Sudeshna Das Chakraborty, Pintu Sen, Biswarup Pathak, Biswarup Satpati, Mrinmay Kumar Mukhopadhyay and Dulal Senapati, "Zone Specific Crystallization and Porosity Directed Scaling Marker for the Catalytic Efficacy of Au-Ag Alloy Nanoparticles", ACS Applied Nano Materials 12 (2019) 7669– 7685
142. Sourav Kumar Dey, Chandi Charan Dey, Satyajit Saha, Debashis Banerjee, Drogan Toprek, "Local structure study of ^{181}Hf dopants in $\text{Zr}_7\text{Ni}_{10}$ by perturbed angular correlation spectroscopy and first principles calculations", Hyperfine Interact 240 (2019)
143. A Goswami, Atanu Dutta, Santanu Paul, "Design of a spiral inflector and transverse beam matching for K130 cyclotron at the Variable Energy Cyclotron Centre", Pramana - J Phys 93 (2019) 15
144. Simantini Majumdar, Pintu Sen, Ruma Ray, "Ionic interactions and transport properties in chitosan-starch based blend solid biopolymer electrolytes", Materials Today: Proceedings 18 (2019) 4913-1920
145. Aradhya Mishra, Ganesh Bera, Priyanath Mal, G. Padmaja, Pintu Sen, Pradip Das, Brahmananda Chakraborty, G.R. Turpu, "Comparative electrochemical analysis of Rgo- FeVO_4 nanocomposite and FeVO_4 for supercapacitor application", Applied Surface Science 488 (2019) 221-227
146. Rituparna Mondal, Koyel Sarkar, Subhrajyoti Dey, Dipanwita Majumdar, Swapan Kumar Bhattacharya, Pintu Sen, and Sanjay Kumar, "Magnetic, Pseudocapacitive, and H_2O_2 Electrosensing Properties of Self-Assembled Superparamagnetic $\text{Co}_{0.3}\text{Zn}_{0.7}\text{Fe}_2\text{O}_4$ with Enhanced Saturation Magnetization", ACS Omega 4 (2019) 12632-12640