

## 7.2

# Publications on Symposia Conferences and reports

1. T. Ablyazimov, V. Friese and V. Singhal., “*Finding the needle in the haystack: a charmonium trigger for the CBM experiment*”, CHEP 2016.
2. S.S. Alam,T. Bhattacharjee,D. Banerjee,A. Saha, P. Das, S.K. Das, “*Fast Timing measurement in neutron rich  $^{131,132}I$* ”, DAE Symp. on Nucl. Phys. **60**, 270 (2015).
3. S.S. Alam, A. Saha, T. Bhattacharjee, D. Banerjee, Md. A. Asgar, R. Banik, S. Bhattacharyya, Soumik Bhattacharya, A. Dhal, D. Mondal, G. Mukherjee, S. Mukhopadhyay, S. Pal, D. Pandit, T. Roy and S.R. Banerjee. “*Study of nuclear structure in odd-odd  $^{122,124}I$* ”, proceedings in DAE Symp. on Nucl. Phys. p.316 Vol 61, 2016.
4. S. S. Alam, D. Banerjee et al., “*Decay spectroscopy offission fragments around Sn*”, Proceedings of the DAE-BRNS Symp. on Nucl. Phys. 61 (2016) 318.
5. S. S. Alam, T. Bhattacharjee, D. Banerjee et al., “*CeBr<sub>3</sub> detector array for measurement of lifetime and transition moment at VECC, Kolkata*”; Proceedings of the DAE- BRNS Symp. on Nucl. Phys. 61 (2016) 320.
6. Md. Sabir Ali, Ayan Ray and Alok Chakrabarti, “*EIT in all optical switching*”, Book of Abstracts of International Conference on Light Quanta: Modern Perspectives and Applications, University of Allahabad, December 14-16, 2015 (p. no. 24).
7. Md. A. Asgar, A. Dhal, T. Roy, G. Mukherjee, Soumik Bhattacharya, S. Bhattacharyya, C. Bhattacharya, S. Bhattacharya, A. Chaudhuri, K. Banerjee, S. Kundu, S. Manna, R. Pandey, J.K. Meena, “*Nuclear structure study at low spin in  $^{169}Tm$* ”, Proceedings of the DAE Symp. on Nucl. Phys. Vol 60 (2015) p.80.
8. Md. A. Asgar, G. Mukherjee, T. Roy, Soumik Bhattacharya, and A. Dhal “*Geant4 Simulation of VENUS Detector Array at VECC*”, proceedings in DAE Symp. on Nucl. Phys. p.950 Vol 61, 2016.
9. Debasis Atta, Somnath Mukhopadhyay, D. N. Basu, C. Samanta “*Interacting & non- Interacting Fermionic Dark Matter and Quark Matter Compacr Stars*”, DAE-BRNS Symp. on Nucl. Phys. **61** (2016) 890.
10. Debasis Atta, Somnath Mukhopadhyay, D. N. Basu, “*Crustal fraction of Moment of Inertia in Pulsars*”, DAE-BRNS Symp. on Nucl. Phys. 60 (2015) 854.
11. P. Sing Babu, A. Goswami and V. S. Pandit, “*Simulation of intense beam bunching using 3D PIC method*”. Indian Particle Accelerator Conference (InPAC-2015), TIFR, Mumbai.
12. D. Banerjee, P. Das, S. V. Thakare, S. K. Das, “*Hyperfine Study of Phase Transition in Mn-doped TiC<sub>x</sub> and Ab initio Calculation*”, International conference on hyperfine interactions-2016.
13. D. Banerjee, R. Murray, G. S.Collins, “*Solute-solute interactions in intermetallic compounds*”, International conference on hyperfine interactions-2016.
14. R. Banik, S. Bhattacharyya, Soumik Bhattacharya, D. Banerjee, S. K. Das, G. Mukherjee,

- T. Bhattacharjee, A. Choudhury, P. Das, R. Guin, A. Saha, “*Decay Spectroscopy of  $^{134}I$* ”, DAE Symp. On Nucl. Phys. 60, 244 (2015).
15. R. Banik, S. Bhattacharyya, Soumik Bhattacharya, D. Banerjee, S. K. Das, R. Guin, G. Mukherjee, Sangeeta Das, T. Bhattacharjee, A. Choudhury, P. Das, A. Saha, “*Spectroscopy of low lying states of  $^{132}_{\Lambda}Xe$  from (3-Decay)*”, proceedings in DAE Symp. on Nucl. Phys. p.76 Vol 61, 2016.
  16. Soumik Bhattacharya, R. Banik, S. S. Alam, A. Saha<sup>1</sup>, Md. A. Asgar, T. Roy, A. Chowdhury, I. Seikh, P. Mukhopadhyay, A. Dhal, T. Bhattacharjee, S. Bhattacharyya\*, G. Mukherjee, S. Mukhopadhyay, D. Mondal, D. Pandit, S. Pal and S. R. Banerjee “*VECC array for Nuclear Spectroscopy (VENUS)*”, Proceedings DAE Symp. on Nucl. Phys. Vol61,p.98,2016.
  17. Soumik Bhattacharya, S. Bhattacharyya, R. Banik, S. Dutta, G. Mukherjee, A. Choudhury, T. Bhattacharjee, A. Saha, D. Banerjee, R. Guin, P. Das, “*Study of low-spin states of  $^{197}Hg$  from decay spectroscopy*”, DAE Symp. on Nucl. Phys. 60, 260 (2015).
  18. Soumik Bhattacharya, S. Bhattacharyya, R. Banik, G. Mukherjee, S. Das Gupta, S.S. Alam, A. Dhal, Md. A. Asgar, T. Roy, A. Saha, T. Bhattacharjee, S. Mukhopadhyay, D. Pandit, D. Mondal, S. Pal and S. R. Banerjee “*Oblate band structure based on nhg/2 orbital in  $^{199}Tl$* ”, proceedings in DAE Symp. on Nucl. Phys. p.188 Vol 61, 2016.
  19. D. Bhowmik and P. Karmakar, “*Energy dependent ripple growth on Si (100) by N+ ion beam irradiation*”, 61<sup>st</sup> DAE Solid State Physics Symposium at Bhubhaneswar on 26<sup>th</sup> to 30<sup>th</sup> Dec, 2016.
  20. U. Bhunia, J. Pradhan, A. De, V.K. Khare, M.K. Dey, S.K. Thakur, S. Saha, H. Kanithi, “*Transient stability of NbTi Rutherford cables for energy storage magnet applications*”, 26th International Cryogenic Engineering Conference International Cryogenic Materials Conference (ICEC 26 - ICMC 2016), Manekshaw Centre, New Delhi, India, Mar 7-11, 2016
  21. D. Bhowmik, P. Karmakar, “*Physiochemical variation of mica surface by low energy ion beam irradiation*”, International Conference on Ion Beams in Materials Engineering and Characterizations (IBMEC 2016) at IUAC New Delhi on 28<sup>th</sup> sept to 1<sup>st</sup> Oct, 2016.
  22. S. Chattopadhyay, S. S. Das, Madhusmita, Md. Nayer Alam, L. Barua, U. Kumar, A. Pal. “*Semi Automated Separation and purification module of  $^{68}Ge/^{68}Ga$  Generator for ready to use at hospital.*” Published in Proc. of the 47<sup>th</sup> Annual Conference of Indian Soc. of Nuclear Medicine (SNMICON-2015), JIPMER, Puducherry, India, 4-6 December (2015), Ind. J. Nucl. Med. Supp S1 30(1), 29-72, P-049 (2015).
  23. Dr. Sankha Chattopadhyay, O-I-C, Regional Centre BRIT has attended the Technical Meeting on “New Ways of Producing Tc-99m and Tc-99m Generators” during 14-18 March 2016, IAEA Headquarters, Vienna, Austria He delivered a lecture on “Solvent Extraction Based System for Automatically Separating  $^{99m}Tc$  Radionuclide From Low-Medium Specific Activity  $^{99}Mo$ .
  24. G. Chaudhuri, P. Das and S. Mallik, “*Statistical ensembles and fragmentation of finite nuclei*”, Proceedings of the DAE-BRNS Symposium on Nuclear Physics **61**, 51 (2016).
  25. M. K. Das, Madhusmita, S. Chattopadhyay, S. S. Das, Md. Nayer Alam, L. Barua, A. De, U. Kumar, “*Cyclotron production of  $^{99m}Tc$  and development of a new method of separation of  $^{99m}TcO_4^-$  from*

*the irradiated molybdenum target” Presented at the Final CRP Meeting on Non-HEU Production of  $^{99m}\text{Tc}$  from enriched  $^{100}\text{Mo}$  (IAEA CRP 17959), IAEA Vienna, Austria in 22-26 June, 2015.*

26. Chiranjib Das, Siddhartha Dechoudhury, Hemendra Kumar Pandey, Vaishali Naik, Alok Chakrabarti, “*Design of rod-type high current proton radio frequency quadrupole accelerator for ANURIB project @ VECC*”, Indian Particle Accelerator Conference (2015).
27. S. S. Das, L. Barua, Md. Nayer Alam, Madhusmita, A. Pal, U. Kumar, S. Chattopadhyay, “*Production of  $^{89}\text{Zr}$  from  $^{nat}\text{Y}$  target by proton irradiation in VEC cyclotron and separation by Dowex-I anion exchange chromatography*”, Proc. of the 47<sup>th</sup> Annual Conference of Indian Soc. of Nuclear Medicine (SNMICON-2015), JIPMER, Puducherry, India , 4-6 December (2015), Ind. J. Nucl. Med. Supp S1: 30(1), 29-72, P-050 (2015).
28. P. Das, G. Chaudhuri and S. Mallik, “*Hypernuclear liquid gas phase transition*”, Proceedings of the DAE-BRNS Symposium on Nuclear Physics 60 (2015) 360.
29. P. Das, S. Mallik and G. Chaudhuri, “*Effect of hyperons on nuclear phase transition*”, Proceedings of the DAE-BRNS Symposium on Nuclear Physics 61, 400 (2016).
30. S. Dasgupta, J. Datta, R. Verma and D.P. Chowdhury, “*Determination of chlorine in high purity materials by charged particle activation analysis using deuteron beam from VEC accelerator*”, First DAE-BRNS symposium organized by Association of Environmental Analytical Chemistry of India (AEACI) on “Current Trends in Analytical Chemistry” (CTAC-2015) Mumbai, India, May 26 - 29 (2015).
31. S. Dasgupta, J. Datta, R. Verma and D.P. Chowdhury, “*Compositional characterization of Cu-Cr-Zr alloy and Lithium Titanate by CPAA using proton beam from VEC accelerator*”, First DAE-BRNS symposium organized by Association of Environmental Analytical Chemistry of India (AEACI) on “Current Trends in Analytical Chemistry” (CTAC-2015) Mumbai, India, May 26 - 29 (2015).
32. J. Datta, S. Dasgupta, R. Verma, D.P. Chowdhury, J.P. Nilaya, and D.J. Biswas, “*The measurement of surface erosion of D9 material during laser ablation process by thin layer activation technique*”, In the proceedings of XII Biennial DAE-BRNS Symposium on Nuclear and Radiochemistry (NU-CAR 2015), Mumbai, India, February 9-13 (2015).
33. J. Datta, S. Dasgupta, R. Verma and D.P. Chowdhury, “*Determination of elemental concentrations at trace levels in alumina by charged particle activation analysis using proton beam from VEC accelerator*”, First DAE-BRNS symposium organized by Association of Environmental Analytical Chemistry of India (AEACI) on “Current Trends in Analytical Chemistry” (CTAC-2015) Mumbai, India, May 26 - 29 (2015).
34. J. Datta, S. Dasgupta, R. Guin, Manisha Venkatesh and D.P. Chowdhury, “*Determination of arsenic at trace levels in ground water by charged particle activation analysis*”, First DAE-BRNS symposium organized by Association of Environmental Analytical Chemistry of India (AEACI) on “Current Trends in Analytical Chemistry” (CTAC-2015) Mumbai, India, May 26 - 29 (2015).
35. Anirban De, U. Bhunia, S. Bandopadhyay, J. Pradhan, Subimal Saha, “*Design, development and testing of a 0.6MJ/3.4kW Prototype Superconducting Magnetic Energy Storage System based Dynamic Voltage Restorer*”, 26th International Cryogenic Engineering Conference In-

ternational Cryogenic Materials Conference (ICEC 26 - ICMC 2016), Manekshaw Centre, New Delhi, India, Mar 7-11, 2016.

36. A. Dhal, R. Ghosh, A.G. Nair, Md.A. Asgar, T. Roy, G. Mukherjee, T.K. Rana, T.K. Ghosh, K. Banerjee, S. Kundul, R. Pandey, P. Royl, S. Manna, A. Sen, J.K. Meena, J.K. Sahoo, A.K. Saha, R. Banik, Soumik Bhattacharya, A. Saha, S.S. Alam, D. Mondal, D. Pandit, S. Mukhopadhyay, S. Pal, T. Bhattacharjee, S. Bhattacharya, C. Bhattacharya, and S.R. Banerjee “ *Half-life and /3-feeding measurements of  $^{207}\text{Po}$  by  $\gamma$ -spectroscopy method* ” - proceedings in DAE Symp. on Nucl. Phys. p.266 Vol 61, 2016.
37. S. Ganguly, “Nuclear Medicine- for Imaging and Therapy of Cancer”, Scientific Meet for the Doctors/Scientists on “Radiation and Cancer”. organized by Chittaranjan National Cancer Institute, Kolkata, and , Nuclear Power Corporation of India Limited.
38. A. Goswami, P. Sing Babu and V. S. Pandit, “*Dynamics of intense continuous off-axis beam propagating through a spiral inflector* ”. Indian Particle Accelerator Conference (InPAC-2015), TIFR, Mumbai.
39. A. Goswami, P. Sing Babu and V. S. Pandit, “*Space charge dominated beam dynamics in 1 mev compact proton cyclotron* ”, Indian Particle Accelerator Conference (InPAC-2015), TIFR, Mumbai.
40. Prasanta Karmakar, “*Low energy ion beams for surface and interface engineering* ”, Workshop on the use of Low Energy Ion Beams, Institute of Physics, Bhubaneswar, Nov 7-9, 2015.
41. F. A. Khan, Debasis Bhowmick, Debasis Atta, D. N. Basu, M. Farooq, Alok Chakrabarti, “*Exotic Nuclei Production by Photofission at Many Energies* ”, DAE-BRNS Symp. on Nucl. Phys. **60** (2015) 634.
42. F. A. Khan, Debasis Bhowmick, D.N. Basu, M. Farooq, Alok Chakrabarti, “*Yields of n-rich Nuclei in p- and  $\gamma$ -Induce  $^{238}\text{U}$  Fission* ”, DAE-BRNS Symp. on Nucl. Phys. **61** (2016) 648.
43. S. A. Khan, J. Mitra, T. K. Nayak, “*GBT link testing and performance measurement on Altera Stratix-V FPGA* ”, In Proceedings of the DAE Symp. on Nucl. Phys (Vol. 60, p. 1052), (2015)
44. K. Madhuri, S. P. Pattnaik, T. R. Routray, D. N. Basu, B. Behera, “*Validity of Parabolic Approximation in the Study of Core-Crust Transition Density using Skyrme Interactions* ”, DAE-BRNS Symp. on Nucl. Phys. 61 (2016) 922.
45. S. Mallik, S. Das Gupta and G. Chaudhuri, “*Signatures of nuclear liquid gas phase transition from transport model calculations for intermediate energy heavy ion collisions* ” Proceedings of the DAE-BRNS Symposium on Nuclear Physics 60 (2015) 508.
46. S. Mallik, S. Das Gupta and G. Chaudhuri, “*Bimodality from transport model calculations for intermediate energy heavy ion reactions* ”, Proceedings of the DAE-BRNS Symposium on Nuclear Physics **61**, 354 (2016).
47. S. Mallik, “*Statistical and dynamical model studies of nuclear multifragmentation reactions at intermediate energies* ”, Proceedings of the DAE-BRNS Symposium on Nuclear Physics **61**, 1126 (2016).
48. Anuraag Misra, A. Goswami, P. Sing. Babu, S. Srivastava, V. S. Pandit, “*Plasma stud-*

- ies and beam emittance measurements of 2.45 GHz microwave ion source at VECC". Indian Particle Accelerator Conference (InPAC-2015), TIFR, Mumbai.*
49. J. Mitra , S. A. Khan, T. K. Nayak, et. el. "*GBT Link Testing and Performance Measurement on PCIe40 and AMC40 Custom Design FPGA Boards*", Tropical Workshop on Electronics for Particle Physics (TWEPP) 2015, Lisbon, Portugal.
  50. S. Mitra and S. Sarkar, "*Medium effects on the transport coefficients of a hot pion gas*", International Conference on Matter at Extreme Conditions (ICMEC), January 15-17, 2014, Bose Institute, Kolkata, Published in Proc.Indian Natl.Sci.Acad. 81 (2015) 127.
  51. J. Mitra and T. K. Nayak, "*Reconfigurable Concurrent VLSI (FPGA) Design Architecture of CRC-32 for high-speed data communication*", The IEEE International Symposium on Nano-electronic and Information Systems (INIS), 2015 Indore, India.
  52. J. Mitra for ALICE-INDIA Collaboration, "*Common Readout Unit (CRU) - A new readout architecture for ALICE experiment*", Tropical Workshop on Electronics for Particle Physics (TWEPP) 2015, Lisbon, Portugal.
  53. J. Mitra, S. A. Khan and T. K. Nayak, "*CRU Design Plan & Work Summary*", 7th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP) 2015, Kolkata, India.
  54. G. Mukherjee, S. Nandi, H.Pai, T. Roy, Md. A. Asgar, A. Dhal, R. Banik, Soumik Bhattacharya, S. Bhattacharyya, C. Bhattacharya, S. Bhattacharya, P. Roy, T.K. Ghosh , S. Kundu, K. Banerjee, T.K. Rana, R. Pandey, S. Manna, A. Sen, A. Dey, J. K. Meena, A. K. Saha, J.K.Sahoo, R. Mandal Saha, A. Saha, S. S. Alam, T. Bhattacharjee, A. Choudhury, S. Mukhopadhyay, D. Pandit, D. Mondal, S. Pal and S. R. Banerjee "*Study of multi-quasiparticle band structures in Tl using a beam* ", proceedings in DAE Symp. on Nucl. Phys. p.270 Vol 61, 2016.
  55. Somnath Mukhopadhyay, Debasis Atta, D. N. Basu, "*Mass-Radius Relation of Magnetized White Dwarfs*", DAE-BRNS Symp. on Nucl. Phys. 60 (2015) 838.
  56. R. Murray, D. Banerjee, G. S. Collins, "*Trapping of solute atoms at grain boundaries in GdNi2*", International conference on hyperfine interactions-2016.
  57. Md. Zamal Abdul Naser, Siddhartha Dechoudhury, Manas Mondal, A. Polley, H.K. Pandey, D.P. Dutta, S.K. Thakur, Arup Bandyopadhyay, Vaishali Naik, Alok Chakrabarti , "*Present status of design, installation and testing of electron gun & low energy beam transport line of Electron Linac at VECC*", Indian Particle Accelerator Conference (2015).
  58. Md. Zamal Abdul Naser, Siddhartha Dechoudhury, H.K. Pandey, Chiranjib Das, Arup Bandyopadhyay, Vaishali Naik, Alok Chakrabarti, "*Design of a RF Separator based beam-line for simultaneous electron beam delivery in ANURIB facility*", Indian Particle Accelerator Conference (2015)
  59. H. K. Pandey, S. Dechoudhury, T. K. Bhattacharya, A. Chakrabarti "*Design and development of a non-interceptive bunch length measurement system for RFQ accelerator of RIB*", Indian Particle Accelerator Conference (2015).
  60. V. S. Pandit, Indian Particle Accelerator Conference (InPAC-2015), TIFR, "*Behaviour of low*

*energy high intensity beam*”, experiments and associated beam dynamics. Mumbai.

61. R. K. Paul, P. Dhara, P. Maity, P. S. Roy, A. Roy, “*Prototype VME & CAMAC form factor Time-stamping module development for Nuclear Physics Experiment*”, DAE-BRNS Symp. on Nucl. Phys. 60 (2015), p.922-923.
62. Ram Kumar Paul, Partha Dhara, Pintu Maity, Pranab Singha Roy, Kaushik Banerjee, Amiya Kumar Saha, and Amitava Roy, “*Time Correlation Experiment with Timestamping module for Heterogeneous VME & CAMAC Data Acquisition System*”, DAE-BRNS Symp. on Nucl. Phys. Volume 61 (2016), Page No. 956-957.
63. T. R. Routray, X. Vinas, D. N. Basu, S. P. Pattnaik, M. Centelles, L. M. Robledo, K. Madhuri, B. Behera, “*Taylor Expansion in the Study of Neutron Star Core-Crust Transition Density*”, DAE-BRNS Symp. on Nucl. Phys. 61 (2016) 884.
64. S. Roy, Tapatee Kundu Roy, D. Das, “Development of high performance ZnO-based varistor”, in: *Proceedings of Research Scholars Colloquium (RSC 2016)*, ISBN: 978-93-80813-44-8, (2016)pp 161-163.
65. S. Roy, D.Das, TapateeKundu Roy, “*Effect of  $Er_2O_3$  addition on densification characteristics of nanocrystallineZnO based varistors*”, *International Conference on Materials Science and Technology (ICMST 2016)*, Dept. of Physics, St. Thomas College, Kerala, 5-8<sup>th</sup>June (2016).
66. S. Roy, D.Das, TapateeKundu Roy, “*Effect of Erbium oxide addition on microstructure and non-ohmic properties of zinc oxide varistor ceramics*”, International Conference on Advances in Materials and Materials Processing (*ICAMMP-iv, 2016*), Indian Institute of Technology, Kharagpur, 5– 7<sup>th</sup> November (2016).
67. S. Saha, B. Sarkar and P.K. Pal, “*Monte Carlo-Based Pose Tracking on Maps Represented with Line Segments*”. Proc. of the 2015 International Conference on Advances In Robotics-2015 (AIR-2015) July 2-4, 2015, Goa, India, ACM, pages-62:1-62:6.
68. A. Saha, D. Banerjee, T. Bhattacharjee, Deepak Pandit, S.S. Alam, P. Das, Soumik Bhattacharya, A. Choudhury, S. Bhattacharyya, A. Mukherjee, R. Guin, S.K. Das, S.R. Banerjee, “*Search for isomeric state in odd-odd  $^{150}Pm$* ”, DAE Symp. on Nucl. Phys. 60, 98 (2015).
69. A. Saha, S. S. Alam, D. Banerjee et al., “*Angular Correlation and Life time Measurement in  $^{150}Sm$* ”, Proceedings of the DAE-BRNS Symp. on Nucl. Phys. 61 (2016) 300.
70. Priya Sen, and Vikas Singhal., “*Event selection for MUCH of CBM experiment using GPU computing*”, 2015 Annual IEEE India Conference (INDICON), (2015) 15888099.
71. N. Sensharma, S.S. Alam, D. Banerjee, T. Bhattacharjee, A. Saha, S.K. Das, “*Angular Correlation measurement around Z=64*”, DAE Symp. on Nucl. Phys. 60, 272 (2015).
72. S. Srivastava, A. Misra, Y. Kumar and S. K. Thakur, “*Optimal design of PID controller for second order plus time delay systems*”, Indian Particle Accelerator Conference (InPAC) 2015, 21-24 December.