DEPARTMENT PHYSICS

PROFILE OF TEACHING STAFF AS ON 30-06-2025

Dr. Md Abdul Kayum Jafry

- Total Teaching Experience in this College: 18 Years 8 months
- Special Paper/Specialization in M.Sc.: High Energy Physics

(a) Full Name: Dr. Md Abdul Kayum Jafry
 (b) Present Designation: Associate Professor
 (c) Areas of Specialization: High Energy Physics
 (d) E-mail ID: akjafry25@gmail.com

(e) WhatsApp Number: 9433600914

(f) Academic Qualifications (From UG Onwards):

| Sl. No. | University/College/Institution from which the Degree was obtained | Name of the Degree e.g., M.A. | Year of Obtaining Degree |
|---------|---|-------------------------------|--------------------------|
| 1 | Bangabasi College (University of Calcutta) | B.Sc (Physics Hons.) | 1986 |
| 2 | Jadavpur University | M.Sc (Physics) | 1990 |
| 3 | Jadavpur University | Ph. D (Physics) | 1999 |
| 4 | UGC-CSIR | NET | 2002 |

(g) Teaching Experiences:

| Sl. No. | Name of the University/College/Institution | Period (i.e., Fromto) |
|---------|--|-----------------------|
| 1 | Shibpur Dinobundhoo Institution(College) | 01/11/2006 to date |

(h) Research Experiences:

| Ì | Sl. No. | Academic Session | Name of the University/College/Institution | Period (i.e., Fromto) |
|---|---------|------------------|--|-----------------------|
| | 1 | 1995-1999 | Jadavpur University | 1995-1999 |

(i) RC/OP/FIP/STC Attended:

| Sl. No. | Academic Session | RC/OP/FIP/STC etc. | University/Institution | Period (i.e., Fromto) | Online/Offline |
|---------|------------------|--------------------|------------------------|--------------------------|----------------|
| 1 | 2008-09 | OP | Jadavpur University | 18/08/2008 to 13/09/2008 | offline |
| 2 | 2010-11 | RC | Jadavpur University | 13/09/2010 to 04/10/2010 | offline |
| 3 | 2014-15 | RC | Jadavpur University | 03/03/2015 to 28/03/2015 | offline |
| 4 | 2015-16 | STC | Jadavpur University | 22/03/2016 to 28/03/2016 | offline |
| 5 | 2016-17 | RC | Jadavpur University | 02/01/2017 to 21/01/2017 | offline |
| 6 | 2019-20 | FIP | IIT Kanpur | 02/04/2020 to 02/06/2020 | online |

(j) Projects (Completed):

| Sl. No. | Academic Session | Funding Agency (e.g., UGC-MRP, ICSSR, WBBB etc.) | Project Title | Grant Received (Rs.) | Date of Completion | UC Submitted on |
|---------|------------------|--|----------------------|----------------------|--------------------|-----------------|
| 1 | 2008-09 | UGC-MRP | Study of fluctuation | Rs 68000.00 | 21/04/2010 | 26/04/2010 |
| | | | and phase transition | | | |
| | | | in pionisation and | | | |
| | | | target fragmentation | | | |
| | | | at SPS energy | | | |

NUMBER OF PUBLICATIONS & CONFERENCE/ SEMINARS

| Sl. No. | | Published | Published | Book | Book | Articles/Ch | Conference/ | Papers accepted/ | Invited Lectures and | News Paper | Books |
|---------|---------|-----------|-------------|-----------|-----------|-------------|-------------|------------------|----------------------|--------------|----------|
| | Session | Papers in | Papers in | published | published | apters | Seminar | Presented in | Chairmanships at | Publications | Reviewed |
| | | National | Internation | as Author | as Editor | Published | Volumes | Conferences, | National or | (Number) | (Number) |
| | | Journals | al Journals | (Number) | (Number) | in Books | (Number) | Seminars, | International | | |
| | | (Number) | (Number) | | | (Number) | | Workshops, | Conference/Seminar | | |
| | | | | | | | | Symposia | (Number) | | |
| | | | | | | | | (Number) | | | |
| | | 5 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

DETAILED LIST OF PUBLICATIONS

(a) JOURNALS (National)

| Sl. No. | Title with Page No. | Journal | ISSN No. | Whether peer- reviewed. | Impact factor, if any. | No. of Co- Authors | Whether you are the sole author |
|---------|---|---|-----------|-------------------------------|------------------------|-----------------------|---------------------------------|
| 1 | Three particle short range azimuthal correlation of pions in ³² S-AgBr interactions at 200 AGeV. Vol.68(2020)p.115 | Indian Journal of Theoretical Physics; | 0019-5693 | yes | | 1 | yes |
| 2 | Evidence of multifractality of the pion production process at 60 GeV/n. Vol.65(2017)p.77 | Indian Journal of theoretical Physics; | 0019-5693 | yes | | 1 | yes |

| 3 | Indication of azimuthal long range correlation of pions in ultra-relativistic nuclear interactions. Vol.64(2016)p.51 | Indian Journal of theoretical Physics | 0019-5693 | yes | | 2 | yes |
|---|--|--|-----------|-----|------|---|-----|
| 4 | Evidence of non-statistical fluctuation in target fragmentation in ultra high energy nuclear interaction. Vol . 74 (2000)p.49. | Indian Journal of Physics A | 0973-1458 | yes | 1.79 | 8 | No |
| 5 | Dynamical short range pion correlation in ultrarelativistic heavy-ion interaction. Vol. 72(1998)p.313. | Indian Journal of Physics A | 0973-1458 | yes | 1.79 | 9 | No |

(b) JOURNALS (International)

| Sl. No. | Title with Page No. | Journal | ISSN No. | Whether peer-reviewed. | Impact factor, if any. | No. of Co- Authors | Whether you are the sole author |
|---------|---|---|-----------|------------------------|------------------------|--------------------------|---------------------------------|
| | Analytical model of compact star in low-mass X-ray binary with de Sitter space time. Vol.19(2019)p.26 | Research in Astronomy and Astrophysics | 1674-4527 | yes | 1.03 | 3 | No |
| 2 | Analytical model of massive Pulsar J0348+0432 Vol.362 (2017)p. 188 | Astrophysics and Space Science | 0004-640X | yes | 1.622 | 3 | Yes |
| | The Finslerian compact star model Vol.75 (2015)p.564 | The European Physical Journal C | 1434-6044 | yes | 5.44 | 4 | No |
| | Analytical model of strange star in the low-mass X-ray binary 4U 1820-30 Vol.74 (2014)p. 2971 | The European Physical Journal C | 1434-6044 | yes | 5.44 | 4 | No |
| | Singularity free solutions for anisotropic charged fluids with Chaplygin equation of state. Vol.82 (2010) 104055 | Physical Review D | 2470-0029 | yes | 4.82 | 3 | No |
| | Multifractal specific heats in ultrahigh energy nuclear collisions. Vol.707(2002)p.213. | Nuclear Physics A | 0375-9474 | yes | 2.5 | 4 | No |
| 7 | Void probability scaling in ultra-relativistic heavy ion interactions. Vol.15(2001)p.329 | Astroparticle Physics | 0927-6505 | yes | 3.58 | 6 | No |
| 8 | Maximum fluctuations of charged particle density in narrow pseudorapidity space at ultrarelativistic nuclear collision. Vol.62 (2000) p. 037902 | Physical Review C | 0556-2813 | yes | 3.73 | 7 | No |
| 9 | Nonstatistical fluctuations in ¹⁶ O-AgBr interaction at 60 AGeV in terms of factorial corelators. Vol.8(2000)p.97 | Euro Physics Journal A | 2190-5444 | yes | 2.42 | 4 | No |
| 10 | Factorial correlator study in ¹⁶ O-AgBr interaction at 60 AGeV. Vol.26(2000)p.405. | Journal of Physics G | 0954-3899 | yes | 2.77 | 5 | No |
| | Evidence of non-statistical fluctuation in medium energy protons emitted in the fragmentation process of ultrarelativistic nuclear interaction. Vol.48 (1999)p.508. | Europhysics Letter | 0295-5075 | yes | 2.10 | 9 | No |
| 12 | Multiparticle production in | IL Nuovo Cimento A | 0369-3546 | yes | | 9 | No |

| | 2.1 GeV/n-200 GeV/n- four | | | | | | |
|----|---|---|-----------|-----|------|---|----|
| | momentum transfer analysis. | | | | | | |
| | | | | | | | |
| 13 | Vol.112(1999)p.277. Multifractality and intermittency study of | International Journal for Modern Physics A | 0217-751X | yes | 1.70 | 6 | No |
| | ultrarelativistic ³² S-AgBr and ¹⁶ O- AgBr interactions – further evidence of a non- | | | | | | |
| | thermal phase transition. Vol.14 (1999)2091. | | | | | | |
| 14 | Multidimensional intermittency analysis in ultrarelativistic heavy ion interaction. Vol.59 (1999)p.2286. | Physical Review C | 0556-2813 | yes | 3.73 | 5 | No |
| 15 | Evidence of dynamical many particle correlation in heavy-ion interaction at 60 AGeV & 200 AGeV. Vol. 111 (1998)p.1361. | IL Nuovo Cimento A | 0369-3546 | yes | | 9 | No |
| 16 | Evidence of multifractal nature of target evaporated slow particles produced in ultrarelativistic heavy ion interactions. Vol.58(1998)p.3553 | Physical Review C | 0556-2813 | yes | 3.73 | 9 | No |
| 17 | Evidence of non-thermal phase transition in ultrarelativistic heavy-ion interaction. Vol.41(1998)p.371. | Europhysics Letter | 0295-5075 | yes | 2.10 | 5 | No |
| 18 | Study of multiplicity distribution in full phase space in ultrarelativistic nuclear collision. Vol.6(1997)p.37. | Fizika B | 1330-0016 | yes | | 9 | No |
| 19 | Fluctuation and fractality study of target residue in ³² S-AgBr interaction at 200 AGeV. Vol.73(1997)p.269. | Z. Physics C | 0170-9739 | yes | 3.83 | 8 | No |
| 20 | Fluctuation study of pionisation in ultra-relativistic nucleus-nucleus interaction. Vol.71(1996)p.243. | Z. Physics C | 0170-9739 | yes | 3.83 | 8 | No |
| 21 | Factorial Correlator study in ³² S-AgBr interaction at 200 AGeV. Vol.52(1995)2092. | Physical Review C | 0556-2813 | yes | 3.73 | 8 | No |

ASSOCIATION WITH UNIVERSITIES/ COMMISSION/ BOARD/ INSTITUTIONS FOR CONFIDENTIAL ASSIGNMENTS

| Sl. No. | Name of Universities / Commission / Board / Institutions etc. |
|---------|---|
| 1 | University of Calcutta |

MEMBERSHIP OF ACADEMIC/PROFESSIONAL BODIES/SOCIETIES

| Ī | Sl. No. | Name of the Society/Association/Professional Bodies etc. |
|---|---------|--|
| Ī | 1 | Indian Association of Cultivation of Science |