

# Curriculum Vitae

## **Personal Information:**

Name: KIRONMOY MANDAL

Official Designation: ASSISTANT PROFESSOR OF PHYSICS

Official Address: Department of Physics, Chandidas Mahavidyalaya,  
Khujutipara, Birbhum, West Bengal -731215

Date of Birth: 3<sup>Rd</sup> April, 1990



**Contact Details:** Mobile-[9735340332](tel:9735340332)  
Email: [kiron.phys@gmail.com](mailto:kiron.phys@gmail.com)

## Academic Information:

Program	Specialization	Institution	Year of completion
Madhyamic Exam	All subject	WBBSE	2005
Pre-degree Exam	Phy, Chem, Math, Bio, Beng, Eng	Visvs-Bharati	2007
Physics (Honours)	Physics (H), Math, Chemistry	University of Kalyani	2010
Master in Physics	Physics (Specialization in Astrophysics)	West Bengal State University	2012

## Scholastic Achievements:

- Qualified in the GATE examination in 2012 with a GATE score of 256.
- Qualified for the UGC-CSIR NET examination in December 2013.

## Employment Information:

Post	Institution/Organization	Period
Guest Faculty	Derizio Memorial College	From 2014 to 2015
Assistant Professor	Chandidas Mahavidyalaya	From 1 <sup>st</sup> April, 2017 to till date.

## Refresher / Orientation Course Attended:

Sl. No.	Name of the Course	Theme of the Course	Date	Organised by
1.	UGC Sponsored online Faculty Induction Programme (OP)	Faculty Induction Programme (Online)	17-07-2021 to 24-08-2021	UGC-HRDC Aligarh Muslim University, Aligarh
2.	UGC Sponsored online Refresher Course	Human Rights (open to all)	20-07-2022 to 02-08-2022	UGC-HRDC Aligarh Muslim University, Aligarh

# List of Publications

## Refereed Journal:

1. *Alignment effects in the medium-spin level structure of  $^{78}\text{Se}^{**}$*

**K. Mandal**, A. Chakraborty, A. K. Mondal, U. S. Ghosh, Aniruddha Dey, Saumyajit Biswas, B. Mukherjee, S. Rai, S. Chatterjee, S. K. Das, S. Samanta, R. Raut, S. S. Ghugre, S. Bhattacharyya, S. Nandi, S. Bhattacharya, G. Mukherjee, S. Ali, A. Goswami, S. Mukhopadhyay, Krishichayan, R. Banik, R. Chakrabarti, V. Kumar, and A. Kumar  
**Phys. Rev. C 105, 034328 (2022)**.

<https://doi.org/10.1103/PhysRevC.105.034328>

2. *Probing the low-lying level structure of  $^{94}\text{Zr}$  through  $\beta^-$  decay\*\**

**K. Mandal**, A. K. Mondal, A. Chakraborty, E.E. Peters, B.P. Crider, C. Andreoiu, P.C. Bender, D.S. Cross, G.A. Demand, A.B. Garnsworthy, P.E. Garrett, G. Hackman, B. Hadinia, S. Ketelhut, Ajay Kumar, K.G. Leach, M.T. McEllistrem, J. Pore, F.M. Prados-Estevez, E.T. Rand, B. Singh, E.R. Tardiff, Z.-M. Wang, J.L. Wood, and S.W. Yates  
**IJPAP Vol. 58, 223-227 (2020)**.

<http://op.niscpr.res.in/index.php/IJPAP/article/view/67594>

3. *Evidence for competing bi-faceted compound nucleus fission modes in  $^{232}\text{Th}(\alpha,f)$  reaction*  
Aniruddha Dey, D. C. Biswas, A. Chakraborty, S. Mukhopadhyay, **K. Mandal**, A. K. Mondal, B. Mukherjee, R. Chakrabarti, B. N. Joshi, L. A. Kinage, S. Chatterjee, S. Samanta, S. Das, Soumik Bhattacharya, R. Banik, S. Nandi, Shabir Dar, R. Raut, G. Mukherjee, S. Bhattacharyya, S. S. Ghugre, and A. Goswami

**Phys. Lett. B 825, 136848 (2022)**.

<https://doi.org/10.1016/j.physletb.2021.136848>

4. *Investigation of different possible excitation modes in neutron-rich  $^{78}\text{As}$*

A. K. Mondal, A. Chakraborty, **K. Mandal**, U. S. Ghosh, Aniruddha Dey, Saumyajit Biswas, B. Mukherjee, S. Rai, Krishichayan, S. Chatterjee, S. K. Das, S. Samanta, R. Raut, S. S. Ghugre, S. Rajbanshi, R. Banik, S. Bhattacharyya, S. Nandi, S. Bhattacharya, G. Mukherjee, S. Ali, A. Goswami, R. Chakrabarti, S. Mukhopadhyay, A. K. Sinha, V. Kumar, and A. Kumar

**Phys. Rev. C 102, 064311 (2020)**.

<https://doi.org/10.1103/PhysRevC.102.064311>

5. *Evolution of collectivity and shape transition in  $^{66}\text{Zn}$*   
 S. Rai, U. S. Ghosh, B.Mukherjee, A. Biswas, A. Chakraborty, A.K. Mondal, K. Mandal,  
 S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar and R.P. Singh  
**Phys. Rev. C 102, 064313 (2020).**  
<https://doi.org/10.1103/PhysRevC.102.064313>
  
6. *Spectroscopic investigation of complex nuclear excitations in  $^{66}\text{Ga}$*   
 U. S. Ghosh, S. Rai, B.Mukherjee, A. Biswas, A. Chakraborty, A.K. Mondal, K. Mandal,  
 S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar and R.P. Singh  
**Phys. Rev. C 102, 024328 (2020).**  
<https://doi.org/10.1103/PhysRevC.102.024328>
  
7. *In-beam spectroscopic study of  $^{63}\text{Zn}$*   
 U. S. Ghosh, S. Rai, B.Mukherjee, A. Biswas, A. Chakraborty, A.K. Mondal, K. Mandal,  
 S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar and R.P. Singh  
**Phys. Rev. C 100, 034314 (2019).**  
<https://doi.org/10.1103/PhysRevC.100.034314>
  
8. *High spin states in  $^{63}\text{Cu}$*   
 S. Rai, U. S. Ghosh, B.Mukherjee, A. Biswas, A. Chakraborty, A.K. Mondal, K. Mandal,  
 S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar and R.P. Singh  
**Eur. Phys. J. A 54, 84 (2018).**  
<https://doi.org/10.1140/epja/i2018-12518-2>

#### Manuscript under preparation:

1. *Investigation of Low-lying Level Structure of  $^{94}\text{Zr}$*   
K. Mandal et al.

#### International and National Conference/Symposium papers:

1. *Identification of collective proton excitations in  $^{94}\text{Zr}^{**}$*   
K. Mandal, A. K. Mondal, A. Chakraborty, E.E. Peters, B.P. Crider, C. Andreoiu, P.C. Bender, D.S. Cross, G.A. Demand, A.B. Garnsworthy, P.E. Garrett, G. Hackman, B. Haldinia, S. Ketelhut, Ajay Kumar, K.G. Leach, M.T. McEllistrem, J. Pore, F.M. Prados-Estevez, E.T. Rand, B. Singh, E.R. Tardiff, Z.-M. Wang, J.L. Wood, and S.W. Yates  
**Proceedings of DAE-BRNS Symp. on Nuclear Physics, Vol. 60, 264 (2015); Prasanthi Nilayam, India.**  
<http://sympnp.org/proceedings/60>

2. *Probing the Low-lying Level Structure of  $^{94}\text{Zr}$  Using  $\beta^-$  decay\*\**

**K. Mandal**, A. K. Mondal, A. Chakraborty, E.E. Peters, B.P. Crider, C. Andreoiu, P.C. Bender, D.S. Cross, G.A. Demand, A.B. Garnsworthy, P.E. Garrett, G. Hackman, B. Hadinia, S. Ketelhut, Ajay Kumar, K.G. Leach, M.T. McEllistrem, J. Pore, F.M. Prados-Estevez, E.T. Rand, B. Singh, E.R. Tardiff, Z.-M. Wang, J.L. Wood, and S.W. Yates  
**Proceedings of DAE-BRNS Symp. on Nuclear Physics, Vol. 62, 230 (2017); Patiala, India.**

<http://sympnp.org/proceedings/62>

3. *Investigation of the medium-spin level structure of  $^{78}\text{Se}^{**}$*

**K. Mandal**, A. K. Mondal, A. Chakraborty, S. Ali, R. Banik, S. Bhattacharya, S. Bhattacharyya, D. C. Biswas, S. Biswas, S. Chattarjee, S. K. Das, A. Dey, U. S. Ghosh, S. S. Ghugre, A. Goswami, Krishichayan, A. Kumar, V. Kumar, B. Mukherjee, G. Mukherjee, S. Mukhopadhyay, S. Nandi, S. Rai, R. Raut, and S. Samanta

**Proceedings of DAE Symp. on Nuclear Physics, Vol. 63, 274 (2018); BARC, India.**

<http://sympnp.org/proceedings/63>

4. *Yrast Spectroscopy of  $^{77}\text{As}$*

A.K. Mondal, A. Chakraborty, **K. Mandal**, U.S. Ghosh, Aniruddha Dey, S. Biswas, B. Mukherjee, Krishichayan, S. Mukhopadhyay, S. Chatterjee, S.K. Das, S. Samanta, R. Raut, S.S. Ghugre, S. Rajbanshi, R. Banik, S. Bhattacharyya, S. Nandi, S. Bhattacharya, G. Mukherjee, S. Ali, A. Goswami, R. Chakrabarti, A. Kumar, and R. Goswami

**Proceedings of DAE Symp. on Nuclear Physics, Vol. 66, 104 (2022); Guwahati, India.**

<http://sympnp.org/proceedings/66>

5. *Re-investigation of some low and medium-spin level structure in  $^{67}\text{Ga}$*

U. S. Ghosh, S. Rai, B. Mukherjee, A. K. Mondal, **K. Mandal**, S. Barman, A. Goswami, S. Biswas, A. Chakraborty, G. Mukherjee, S. Chakraborty, A. Sharma, I. Bala, S. Muralithar, R. P. Singh

**Proceedings of DAE Symp. on Nuclear Physics, Vol. 66, 144 (2022); Guwahati, India.**

<http://sympnp.org/proceedings/66>

6. *Delving deep into the multi-faceted fission modes through fission fragment spectroscopy*

Aniruddha Dey, D. C. Biswas, A. Chakraborty, S. Mukhopadhyay, A. K. Mondal, **K. Mandal**, B. Mukherjee, R. Chakrabarti, B. N. Joshi, L. A. Kinage, S. Chatterjee, S. Samanta, S. Das, Soumik Bhattacharya, R. Banik, S. Nandi, Shabir Dar, R. Raut, G. Mukherjee, S. Bhattacharyya, S. S. Ghugre, and A. Goswami

**Proceedings of DAE Symp. on Nuclear Physics, Vol. 65, 32 (2021); BARC, India.**

<http://sympnp.org/proceedings/65>

7. *High-K states and band structures in Yb isotopes*

Saket Suman, S. K. Tandel, S. G. Wahid, Poulomi Roy, A. Chakraborty, **K. Mandal**, A.K. Mondal, G. Mukherjee, S. Bhattacharyya, Soumik Bhattacharya, R. Banik, S. Nandi, Shabir Dar, A. Asgar, S. Samanta, S. Das, S. Chatterjee, R. Raut, S. S. Ghugre, A. Sharma, Sajad Ali, and P. Chowdhury

**Proceedings of the DAE Symp. on Nuclear Physics, Vol. 64, 226 (2019); Lucknow, India.**

<http://sympnp.org/proceedings/64>

8. *In-beam  $\gamma$ -ray spectroscopy of  $^{63}\text{Zn}$*

U. S. Ghosh, S. Rai, B. Mukherjee, A. Biswas, A. Chakraborty, A.K. Mondal, **K. Mandal**, S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar and R.P. Singh.

**Proceedings of DAE Symp. on Nuclear Physics, Vol. 63, 130 (2018); BARC, India.**

<http://sympnp.org/proceedings/63>

9. *In-beam  $\gamma$ -ray spectroscopy of  $^{66}\text{Zn}$*

S. Rai, B. Mukherjee, U. S. Ghosh, A. Biswas, A. Chakraborty, A.K. Mondal, **K. Mandal**, S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar and R.P. Singh.

**Proceedings of DAE Symp. on Nuclear Physics, Vol. 63, 240 (2018); BARC, India.**

<http://sympnp.org/proceedings/63>

10. *Isotopic yield and mass distributions of neutron-rich fragment nuclei produced in  $\alpha$  induced fission of  $^{232}\text{Th}$*

Aniruddha Dey, S. Mukhopadhyay, D. C. Biswas, A. Chakraborty, A. K. Mondal, **K. Mandal**, B. N. Joshi, S. Chatterjee, S. Samanta, S. Das, Soumik Bhattacharya, R. Banik, S. Nandi, R. Raut, G. Mukherjee, S. Bhattacharyya, S. S. Ghugre, and A. Goswami

**Proceedings of DAE Symp. on Nuclear Physics, Vol. 63, 268 (2018); BARC, India.**

<http://sympnp.org/proceedings/63>

11. *In-beam  $\gamma$ -ray spectroscopy of  $^{63,64}\text{Cu}$*

S. Rai, B. Mukherjee, A. Biswas, U. S. Ghosh, A. Chakraborty, A. Mondal, **K. Mandal**, S. Chakraborty, A. Sharma, G. Mukherjee, I. Bala, S. Muralithar and R. P. Singh

**Proceedings of the DAE Symp. on Nuclear Physics, Vol. 61, 240 (2016); Kolkata, India.**

<http://sympnp.org/proceedings/61>

## **Conferences and Symposia attended:**

1. “60<sup>th</sup> DAE-BRNS Symposium on Nuclear Physics”, sponsored by Board of Research in Nuclear Sciences, organized at Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam-515134, A.P., India from 7<sup>th</sup> to 11<sup>th</sup> December, 2015.

**Type of presentation:** Poster presentation

2. “International Conference on Advancement in Science & Technology (ICAST-2018)”, organized by Indian JSPS Alumni Association in association with Department of Physics, Visva-Bharati from 3<sup>rd</sup> to 4<sup>th</sup> September, 2018.

**Type of presentation:** Poster presentation

3. “63<sup>th</sup> DAE-BRNS Symposium on Nuclear Physics”, sponsored by Board of Research in Nuclear Sciences, organized at BARC, India from 10<sup>th</sup> to 14<sup>th</sup> December, 2018.

**Type of presentation:** Poster presentation

4. “International Conference on Recent Issues in Nuclear and Particle Physics (RINP2)”, organized by Department of Physics, Visva-Bharati from 3<sup>rd</sup> to 5<sup>th</sup> February, 2019.

**Type of presentation:** Poster presentation

5. “International Conference on New Frontiers in Nuclear Physics (ICNFNP 2019)”, organized by Department of Physics, Banaras Hindu University, Varanasi, Uttar Pradesh, India from 14<sup>th</sup> to 17<sup>th</sup> October, 2019.

**Type of presentation:** Poster presentation