



# Kirori Mal College

(University of Delhi)

University of Delhi, Delhi-110007

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## 1. Personal Profile

Title: **Prof.** First Name: **BIPIN** Last Name: **SINGH KORANGA**

Designation: **PROFESSOR** Mobile No. -----

Phone No. (Office) ----- Phone No. (Residence): -----

Email: [bskoranga@kmc.du.ac.in](mailto:bskoranga@kmc.du.ac.in) Webpage:  
[https://www.researchgate.net/profile/Bipin-Singh-Koranga?ev=hdr\\_xprf](https://www.researchgate.net/profile/Bipin-Singh-Koranga?ev=hdr_xprf)

Facebook: <https://www.facebook.com/bipin.koranga/> Twitter: -----

LinkedIn: <https://www.linkedin.com/in/dr-bipin-singh-koranga-22496157/> Instagram:  
<https://bskoranga-coder.github.io/bskoranga.github.io/>

Youtube: ----- Research Gate Link: [https://www.researchgate.net/profile/Bipin-Singh-Koranga?ev=hdr\\_xprf](https://www.researchgate.net/profile/Bipin-Singh-Koranga?ev=hdr_xprf)

Google Scholar Link: [https://scholar-google-co-in.translate.goog/citations?user=Zw-OC8kAAAAJ&hl=hi&\\_x\\_tr\\_sl=en&\\_x\\_tr\\_tl=hi&\\_x\\_tr\\_hl=hi&\\_x\\_tr\\_pto=tc](https://scholar-google-co-in.translate.goog/citations?user=Zw-OC8kAAAAJ&hl=hi&_x_tr_sl=en&_x_tr_tl=hi&_x_tr_hl=hi&_x_tr_pto=tc)

Address: **BAGESHWAR, UTTRAKHAND**



## 2. Educational Qualifications

Degree/ Certification	Institution	Year
Ph.D(Physics)	IIT Bombay: Indian Institute of Technology Bombay	2007

## 3. Career Profile & Administrative Assignments

Category	Role/ Designation	Department/ Committee	Date From - To	Remarks
ADMINISTRATIVE ASSIGNMENTS	TEACHER-IN-CHARGE	PHYSICS KIRORI MAL COLLEGE, DELHI	01.Apr.2014 - 31.Mar.2015	

## 4. Other Profiles

Other Profile Name/ Description

## **SUBJECTS TAUGHT**

- **Classical Dynamics**
- **Modern Physics (PH302) (Autumn 2008,2009,2011).**
- **Thermal Physics(2010).**
- **Optics,Modern Physics and Electronics (MP302) (Spring 2008).**
- **Computational Physics,Quantum Mechanics**
- Mathmatical Physics**
- **Mathematical Physics-V,Modern Physics,Thermal Physics**
- **Nuclear and Particle Physics**

## **AREAS OF INTEREST/ SPECIALIZATION**

I am theoretical physicist with research interests predominantly in the area of Nuclear Physics,Neutrino Physics and Cosmology. A brief description of the topic follows.

- **Neutrino oscillations phenomenon in both reactor,accelerator neutrino oscillation experiments and constraints on the neutrino masses.**
- **Relating the neutrino oscillation parameter with the planned neutrino oscillation experiments. In particular, understanding if there is any relation between matter and anti-matter.**
- **CP violation eects in neutrino oscillation, In particular study of CP violation in planned long baseline neutrino experiments.**
- **Dark matter and Possible CPT violation eects due to Planck scale eects and whats the role of dierent unknown parameters in CPT violation phenomenon.**
- **Nuclear Physics, High Energy Particle Physics, Quantum field theory, Mathematical Physics,Astrological Science and Relativity etc./**

## **AWARDS AND DISTINCTIONS**

**Junior Merit Scholarship(Ekikrit Chatarwari) 1989-1993 (at 9 th and 12 th standard)**

- **Graduation Merit Scholarship:1995-1998 ( at B.Sc & M.Sc)**
- **GATE:2000,2001(An all India level entrance examination for post for graduate studies organized by all the IIts)**
- **GEST,NET:1999-2001**

## **MEMBERSHIPS IN ACADEMIC/ PROFESSIONAL BODIES**

**Advancements and Developments in Modern Physics.**

- **International Journal of Modern Theoretical Physics**
- **Member of Indian Physics Association**
- **Member of Indian Physics Teacher Associationr**
- **Member of Indian Science Congress**

## OTHERS

### Visit Abroad :5

Visited international Center for Theoretical Physics (ICTP),Trieste,Italy on invitation Workshop Towards Neutrino Technologies, during July-2009 and again during November 2012 to attend work-shop Recent Developments in Astronuclear and Astroparticle Physics.

### School/Conference-Attend

- SERC School In Theoretical High energy Physics, during Dec-2002 ( Held at Indian Institute of Technology, Bombay )
- SERC School In Theoretical High energy Physics, during Feb-2003 ( Held at Indian Institute of Technology, Madras )
- Summer School on Particle Physics, during June-2004 (Held at the Abdus Salaam International Center for Theoretical Physics, Miramere Trieste , Italy )
- WHEPP-8, 8 th workshoop on High Energy Physics Phenomenology, during jan-2004 (Held at Indian Institute of Technology, Bombay )
- D.A.E -B.R.N.S, symposium on High Energy Physics, during, Dec-2005 ( Held at SAHA Institute of Nuclear Physics, Kolkata )

Summer School on Particle Physics, during June-2005 (Held at the Abdus Salaam International Center for Theoretical Physics, Miramere Trieste , Italy )

- Symmetries Extra dimensions and Uni ed Theories, during March-2006 (( Held at Indian Institute of Technology, Bombay )
- Engineering challenge for future Acclerators, during March-2006( Held at Indian Institute of Technology, Bombay )
- D.A.E -B.R.N.S, symposium on High Energy Physics, during, Dec-2006 ( Held at Indian Institute of Technology, Bombay )
- Conference NuGoa09 to be held at the International Centre in Goa during Apr 8-15, 2009.
- Workshop Towards Neutrino Technologies, during July-2009 (Held at the Abdus Salaam International Center for Theoretical Physics, Miramere Trieste , Italy ).
- Workshop on Neutrino-Nucleus Interactions in the Few-GeV Region in Dehradun,U.K (India) ,March 7-11,2011.
- Workshop on Recent Developments in Astronuclear and Astroparticle Physics in Trieste,ITALY,Nov 19-23,2012.

IITB-ICTP Workshop on Recent Neutrino Physics in IIT Mumbai,Dec.rkshop on Recent Neutrino Physics in IIT Mumbai,Dec.

### Short Term/Orientation/Refresher Course Attended:

Orientation Course Held at Academic Staf College, Kumaun University, Nainital from 14 March 2009 to 10 April 2009..

OTHERS

## Professional Experience

- Professor, Department of Physics, Kirori Mal College (Delhi University) (Since Nov. 20, 2022).
- Associate Professor, Department of Physics, Kirori Mal College (Delhi University) (Since Nov. 20, 2019).
- Assistant Professor, Department of Physics, Kirori Mal College (Delhi University) (Since Sep. 5, 2007).
- Postdoctoral Fellow, work on (INO) SIMULATION BETWEEN TIFR AND IITB ( Since 14 Nov 2006 (Thesis submission) to March 2007 .
- Postdoctoral Fellow, work on Studies of Physics with Magnetized Iron Neutrino Detector ( Since, Mar-Sep Nov 2006 ).
- Teaching and Research Assistant, Physics Department, Indian Institute of Technology(IIT Bombay) ,(2001-2006) .

## Conference Publications

- ( 1)Bipin Singh Koranga, Department of Physics, K.M. College(University of Delhi).

**DETERMINING THE NEUTRINO MASS HIERARCHY BY FUTURE LONG BASELINE AND REACTOR EXPERIMENTS NATIONAL CONFERENCE ON "Recent Trends in the Advancement of Astronomy and Applied Mathematics & WORKSHOP ON Introduction to Astronomy and Galileo (November 14th & 15th,2009).**

- ( 2)Bipin Singh Koranga, P.Shatty and P. Gaira, Department of Physics, K.M. College(University of Delhi).

**DOES CP VIOLATING PHASE EXIST FROM THE PLANCK SCALE EFFECTS NATIONAL CONFERENCE ON "Recent Trends in the Advancement of Astronomy and Applied Mathematics & WORKSHOP ON Introduction to Astronomy and Galileo (November 14th & 15th,2009) .**

- ( 3)Bipin Singh Koranga, Department of Physics, K.M. College(University of Delhi), S.Uma Sankar, Department of Physics Indian Institute of Technology, Bombay, Mumbai 400 076 Department of Physics, Mumbai University ,Institute of chemical Technology, Mumbai 400 019.

**Possible CPT violation from Planck scale effects NATIONAL CONFERENCE ON "Recent Trends in the Advancement of Astronomy and Applied Mathematics & WORKSHOP ON Introduction to Astronomy and Galileo (November 14th & 15th,2009).**

- (4)Bipin Singh Koranga, Department of Physics, K.M. College(University of Delhi)

**A Semi-classical Approach to Signature Splitting and Signature Inversion in Odd-Odd Nuclei DAE Symposium On Nuclear Physics December 20 - 24, 2010 Birla Institute of Technology & Science, Pilani-333031, Rajasthan, India.**

- (5)Bipin Singh Koranga, Department of Physics, K.M. College(University of Delhi),

**A Role of Valence Particle Number Equal to 20 DAE Symposium On Nuclear Physics December 3 - 7, 2012 Delhi University, Delhi, India.**

- (6)Bipin Singh Koranga, Department of Physics, K.M. College(University of Delhi),

**Quantum Gravity Correction to Co-bimaximality**

**Symposium On Recent trends in Physics, October 29-31, 2017 G.K.V, Haridwar, U.K, India.**

- (7)Bipin Singh Koranga, Department of Physics, K.M. College(University of Delhi),

**Quantum Gravity Correction to Co-bimaximality**

**Advance in Physics from Small scale to Large Scale, March 27-28, 2018 , K.U. Nainital, U.K, India.**

OTHERS

## TOTAL PUBLICATION LINK

In total has 55 papers in international journal, many paper of my single authorship

(1) <https://inspirehep.net/literature?sort=mostrecent&size=25&page=1&q=a%20koranga>

(2) <https://www.researchgate.net/profile/Bipin-Singh-Koranga>

## OTHERS

# Detail of PhD Program

- Supervisor: Prof. S. Uma Sankar , Department of Physics, Indian Institute of Technology-Bombay, India )
- Date of joining : July 2001
- Date of successful completion of the PhD Course work: December 2002
- Detail of the PhD course work

### Semester-1

#### Course Course Name

PH-801 8.00 Classical Electrodynamics

PH-805 8.00 Appl. Quantum Mechanics

PH-811 8.00 Lab. Techniques

### Semester-2

#### Course Course Name

PH-808 8.00 Particle Physics

PH-820 8.00 Appl. Math. Techniques

PHS-802 4.00 Seminar

Thesis Submission date:14 November-2006.

Date of Ph.D Viva : 4 April-2007.

Research Classification: Theoretical Nuclear and Computational Neutrino Physics(High Energy Physics)

Ph.D- Title: Studies in Neutrino Masses and Mixings.

## 5. Research Guidance

Year	Guide For	Title of the Dissertation/ Thesis	Scholar Name	Status
2020	Post Doctorate	Neutrino Oscillation in Four Flavour Frame Work	P.V Singh	Submitted
2021	M. Phil	Neutrino Oscillation and Matter Effects	Ashish Kumar	Awarded

## 6. Research Projects

Year	Title of Project	Sponsorship Agency	Duration	Amount Sanctioned	Date of Sanction
2012	Study of Quark Gluon Plasma and Neutrino physics(1)	Delhi University	1 Year	10 Lakh	12.Mar.2012
2013	Study of Quark Gluon Plasma and Neutrino physics(2)ext.	Delhi University	2 Year	06 Lakh	12.Mar.2013

## 7. Publications

Category	Publication Name	Title	Name of Author	Reference Link/ DOI Link
JOURNAL PAPER (International)	The study of angular momentum on the fusion of $^{14}\text{Si} + ^{14}\text{Si}$ , using SEDF in semiclassical extended Thomas-Fermi approach	Nucl.Phys.A 1035 (2023) 122672	bipin singh koranga (Joint Author)	
JOURNAL PAPER (International)	Effect on Jarlskog Determinant Above the GUT Scale Within Four Flavor Neutrino Framework .	Int.J.Theor.Phys. 60 (2021) 9, 3548-3565.	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-021-04916-8">https://link.springer.com/article/10.1007/s10773-021-04916-8</a>
JOURNAL PAPER (International)	Quantum Gravity Effects on Oscillation Parameters in a Four Flavor Framework	Int.J.Theor.Phys. 60 (2021) 5, 1920-1932	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-021-04811-2">https://link.springer.com/article/10.1007/s10773-021-04811-2</a>
JOURNAL PAPER (International)	Effective Neutrino Masses from Four Flavor Neutrino Mixing Matrix	Int.J.Theor.Phys. 60 (2021) 3, 781-792	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-020-04683-y">https://link.springer.com/article/10.1007/s10773-020-04683-y</a>

JOURNAL PAPER (International)	CPT Violation in Four Flavor Neutrino Framework from Planck Scale Effects	: Int.J.Theor.Phys. 60 (2021) 3, 976-981	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-021-04720-4">https://link.springer.com/article/10.1007/s10773-021-04720-4</a>
JOURNAL PAPER (International)	The CP Violating Phase in Matter for Three Generatons of Neutrinos Using the Fritzsche Parametrization	: Int.J.Theor.Phys. 59 (2020) 10, 3224-3228	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-020-04575-1">https://link.springer.com/article/10.1007/s10773-020-04575-1</a>
JOURNAL PAPER (International)	Correction to Neutrino Mass Square Difference in the Co-Bimaximal Mixings due to Quantum Gravity	nt.J.Theor.Phys. 56 (2017) 11, 3508-3513	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-017-3515-3">https://link.springer.com/article/10.1007/s10773-017-3515-3</a>
JOURNAL PAPER (International)	Neutrino Mixing in Matter at Extreme High Energy	nt.J.Theor.Phys. 56 (2017) 8, 2445-2449	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-017-3395-6">https://link.springer.com/article/10.1007/s10773-017-3395-6</a>
JOURNAL PAPER (International)	CPT Violation in Atmospheric Neutrino Oscillation: A Two Flavour Matter Effects	Int.J.Theor.Phys. 53 (2014) 11, 3737-3743	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-014-2126-5">https://link.springer.com/article/10.1007/s10773-014-2126-5</a>
JOURNAL PAPER (International)	Quantum Gravity on Neutrino Mass Square difference	Mod.Phys.Lett.A 25 (2010) 2183-2188	bipin singh koranga (First Author)	<a href="https://www.worldscientific.com/doi/abs/10.1142/S02177323">https://www.worldscientific.com/doi/abs/10.1142/S02177323</a>
JOURNAL PAPER (International)	Deviation from bimaximality due to Planck scale effects	: Phys.Lett.B 665 (2008) 63-66	bipin singh koranga (First Author)	<a href="https://www.sciencedirect.com/science/article/pii/S03702693">https://www.sciencedirect.com/science/article/pii/S03702693</a>
JOURNAL PAPER (International)	Possible CPT violation from Planck scale effects	Fizika B 18 (2009) 219-226	bipin singh koranga (First Author)	<a href="http://fizika.hfd.hr/fizika_b/bv09/b18p219.pdf">http://fizika.hfd.hr/fizika_b/bv09/b18p219.pdf</a>

JOURNAL PAPER (International)	Determining the Sign of Delta(31) by Future Long Baseline and Reactor Experiments	: Fizika B 18 (2009) 151-164	bipin singh koranga (First Author)	<a href="http://fizika.hfd.hr/fizika_b/bv09/b18p151.pdf">http://fizika.hfd.hr/fizika_b/bv09/b18p151.pdf</a>
JOURNAL PAPER (International)	A Semi-classic Look on Signature Splitting and Signature Inversion in Odd-Odd Nuclei	Int. J. Mod. Phys. E 20, 1455 (2011).	bipin singh koranga (Joint Author)	<a href="https://www.worldscientific.com/doi/abs/10.1142/S02183013">https://www.worldscientific.com/doi/abs/10.1142/S02183013</a>
JOURNAL PAPER (International)	Do two flavour oscillations explain both KamLAND data and the solar neutrino spectrum?	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-010-0660-3">https://link.springer.com/article/10.1007/s10773-010-0660-3</a>
JOURNAL PAPER (International)	Neutrino mixings and magnetic moments due to Planck scale effects	Electron.J.Theor.Phys. 5 (2008)	bipin singh koranga (First Author)	<a href="http://www.ejtp.com/articles/ejtpv5i19p133.pdf">http://www.ejtp.com/articles/ejtpv5i19p133.pdf</a>
JOURNAL PAPER (International)	Neutrino Oscillation Probability from Tri-Bimaximality due to Planck Scale Effects	Electron.J.Theor.Phys. 6 (2009)	bipin singh koranga (First Author)	<a href="http://www.ejtp.com/articles/ejtpv6i21p149.pdf">http://www.ejtp.com/articles/ejtpv6i21p149.pdf</a>
JOURNAL PAPER (International)	Relation between CPT Violation in Neutrino masses and mixings	International Journal of Theoretical Physics	bipin singh koranga (First Author)	
JOURNAL PAPER (International)	Deviation from tetra-maximal neutrino mixing above the GUT scale	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-010-0437-8">https://link.springer.com/article/10.1007/s10773-010-0437-8</a>
JOURNAL PAPER (International)	Neutrino mixing matrix and leptogenesis from quantum gravity	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-010-0491-2">https://link.springer.com/article/10.1007/s10773-010-0491-2</a>

JOURNAL PAPER (International)	CP violation in neutrino oscillation due to Planck scale effects	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-010-0490-3">https://link.springer.com/article/10.1007/s10773-010-0490-3</a>
JOURNAL PAPER (International)	CPT violating neutrino oscillation under planck scale effects	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-011-0756-4">https://link.springer.com/article/10.1007/s10773-011-0756-4</a>
JOURNAL PAPER (International)	Effect of Majorana phases in neutrino oscillation	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-011-0697-y">https://link.springer.com/article/10.1007/s10773-011-0697-y</a>
JOURNAL PAPER (International)	Neutrino mass hierarchy above GUT scale	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-011-0702-5">https://link.springer.com/article/10.1007/s10773-011-0702-5</a>
JOURNAL PAPER (International)	Three flavor neutrino mixing and dark energy above GUT scale	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-010-0655-0">https://link.springer.com/article/10.1007/s10773-010-0655-0</a>
JOURNAL PAPER (International)	Three flavor neutrino mixing in matter by perturbation approach	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-010-0599-4">https://link.springer.com/article/10.1007/s10773-010-0599-4</a>
JOURNAL PAPER (International)	T violation in neutrino oscillation above GUT scale	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-010-0547-3">https://link.springer.com/article/10.1007/s10773-010-0547-3</a>
JOURNAL PAPER (International)	Analytic Calculation of Neutrino Mass Eigenvalues	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-011-0942-4">https://link.springer.com/article/10.1007/s10773-011-0942-4</a>
JOURNAL PAPER (International)	Neutrino oscillation phase shift from quantum gravity	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-012-1259-7">https://link.springer.com/article/10.1007/s10773-012-1259-7</a>
JOURNAL PAPER (International)	CPT Violation in Neutrino Oscillation and Matter Effects	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-013-1518-2">https://link.springer.com/article/10.1007/s10773-013-1518-2</a>

JOURNAL PAPER (International)	CP Phase Effects in Long Baseline Neutrino Experiments	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-013-1496-4">https://link.springer.com/article/10.1007/s10773-013-1496-4</a>
JOURNAL PAPER (International)	Quantum Gravity on Neutrino Oscillation Length	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-013-1495-5">https://link.springer.com/article/10.1007/s10773-013-1495-5</a>
JOURNAL PAPER (International)	Quantum Gravity Effect on Neutrino Oscillation	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-014-2071-3">https://link.springer.com/article/10.1007/s10773-014-2071-3</a>
JOURNAL PAPER (International)	Does CP Phase Exist Above the GUT Scale	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-013-1972-x">https://link.springer.com/article/10.1007/s10773-013-1972-x</a>
JOURNAL PAPER (International)	Neutrino Mass Hierarchy and CP Violation in Long Baseline Neutrino Experiment	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-013-1860-4">https://link.springer.com/article/10.1007/s10773-013-1860-4</a>
JOURNAL PAPER (International)	Invariance of Jarlskog Determinant Above the GUT Scale	International Journal of Theoretical Physics	bipin singh koranga (First Author)	<a href="https://link.springer.com/article/10.1007/s10773-014-2045-5">https://link.springer.com/article/10.1007/s10773-014-2045-5</a>
JOURNAL PAPER (International)	Factors Affecting Beta-decay Life-time of Ground State of the Isotopes	International Journal of Modern Theoretical Physics, 2015, 4(1): 41-48	bipin singh koranga (First Author)	
JOURNAL PAPER (International)	Systematics of Ground State Lifetime for Beta Decay	International Journal of Modern Theoretical Physics, 2016, 5(1)	bipin singh koranga (First Author)	
JOURNAL PAPER (International)	Neutrino Mass Spectrum for Co-Bimaximal Mixings from Quantum Gravity	International Journal of Modern Theoretical Physics, 2019, 8(1)	bipin singh koranga (First Author)	
JOURNAL PAPER (International)	CP Violation from Co-bimaximality Neutrino Mixing Pattern above the GUT Scale	International Journal of Modern Theoretical Physics, 2020, 9(1):	bipin singh koranga (First Author)	

JOURNAL PAPER (International)	Majorana CP-violating Phase Effect on the Effective Electron Neutrino Mass	International Journal of Modern Theoretical Physics, 2015, 4(1):	bipin singh koranga (First Author)	
JOURNAL PAPER (International)	Possible Neutrino Mass Spectrum above the GUT Scale	International Journal of Modern Theoretical Physics, 2015, 4(1)	bipin singh koranga (First Author)	
JOURNAL PAPER (National)	Supersymmetry breaking in quaternion space	Indian J.Phys. 98 (2024) 5, 1857-1863	Bipin Singh Koranga (Joint Author)	<a href="https://link.springer.com/article/10.1007/s12648-023-02949-9">https://link.springer.com/article/10.1007/s12648-023-02949-9</a>
JOURNAL PAPER (International)	The study of angular momentum on the fusion of $^{14}\text{Si} + ^{14}\text{Si}$ , using SEDF in semiclassical extended Thomas-Fermi approach	Nucl.Phys.A 1035 (2023) 122672	Bipin Singh Koranga (Joint Author)	<a href="https://www.sciencedirect.com/science/article/abs/pii/S03759">https://www.sciencedirect.com/science/article/abs/pii/S03759</a>
JOURNAL PAPER (International)	Phenomenology of (3+1) Four Flavour Neutrino Oscillations in Dense Matter	Journal of Graphic Era University, Vol. 12_2, 363–372	Bipin Singh Koranga (Corresponding Author)	<a href="https://doi.org/10.13052/jgeu0975-1416.12210">https://doi.org/10.13052/jgeu0975-1416.12210</a>
JOURNAL PAPER (International)	The study of angular momentum on the fusion of $^{14}\text{Si} + ^{14}\text{Si}$ , using SEDF in semiclassical extended Thomas-Fermi approach	Nucl.Phys.A 1035 (2023) 122672	Bipin Singh Koranga (Joint Author)	<a href="https://www.sciencedirect.com/science/article/abs/pii/S03759">https://www.sciencedirect.com/science/article/abs/pii/S03759</a>
JOURNAL PAPER (International)	Modified entanglement patterns in two-flavor neutrinos from quantum-gravity interactions	International Journal of Quantum Information, world scientific	Bipin Singh Koranga and Baktiar Wasir Farooq (First Author)	<a href="https://doi.org/10.1142/S021974992540009X">https://doi.org/10.1142/S021974992540009X</a>

CONFERENCE PAPER/ PROCEEDINGS (International)	Particle-hole symmetry the characteristic of spherical-configuration rule out theoretical prediction of shell quenching in N=82	DAE Symp.Nucl.Phys. 56 (2011) 262-263	bipin singh koranga (Joint Author)	<a href="https://inspirehep.net/conferences/981701">https://inspirehep.net/conferences/981701</a>
CONFERENCE PAPER/ PROCEEDINGS (International)	A Semi-classical Approach to Signature Splitting and Signature Inversion in Odd-Odd Nuclei,	DAE Symp.Nucl.Phys. 55 (2010) 134-135	bipin singh koranga (Joint Author)	<a href="http://www.sympnp.org/proceedings/55/A67.pdf">http://www.sympnp.org/proceedings/55/A67.pdf</a>

## 8. Books

Category	Book Name	Title	Name of Author	ISSN/ ISBN Number
BOOK (International)	An Introduction of Tensor Analysis	bipin singh koranga (First Author)	River Publisher Denmark	978877
BOOK (International)	Special Functions &Its Application	bipin singh koranga (First Author)	River Publisher Denmark	978877
BOOK (International)	An Introduction of Fluid Dynamics	bipin singh koranga (First Author)	Lambert Publication,Republic of Maldova,Europe	9786205492529
BOOK (International)	Elementary Modern Physics	bipin singh koranga (Joint Author)	River Publisher Denmark,	978877
BOOK (International)	LAGRANGIAN AND HAMILTONIAN DYNAMICS	Bipin Singh Koranga (First Author)	Lambert Academic Publishing is a brand of OmniScriptum S.R.L.	978-620-6-84433-4
BOOK (International)	LAGRANGIAN AND HAMILTONIAN DYNAMICS	Bipin Singh Koranga (First Author)	Lambert Academic Publishing is a brand of OmniScriptum S.R.L.	978-620-6-84433-4

## 9. Faculty Achievements

Year	Category of Achievement	Role	National/ International etc.	Name	Date From-To
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2009	SEMINAR ATTENDED	ASSISTANT PROFESSOR	National	Recent Trends in the Advancement of Astronomy and Applied Mathematics & WORKSHOP ON Introduction to Astronomy and Galileo	14.Nov.2009 - 15.Nov.2009
2017	SEMINAR ATTENDED	ASSISTANT PROFESSOR	International	Symposium On Recent trends in Physics,	17.Oct.2017 - 19.Oct.2017
2018	INVITED LECTURES/ RESOURCE PERSON/ PAPER PRESENTATIONS ATTENDED	ASSISTANT PROFESSOR	National	Advance in Physics from Small scale to Large Scale	27.Mar.2018 - 28.Mar.2018
2009	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSISTANT PROFESSOR	International	Workshop Towards Neutrino Technologies, during	12.Jul.2009 - 17.Jul.2009
2012	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSISTANT PROFESSOR	International	Workshop on Recent Developments in Astronuclear and As- troparticle Physics	19.Nov.2012 - 23.Nov.2012
2018	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSISTANT PROFESSOR	International	IITB-ICTP Workshop on Recent Neutrino Physics	14.Dec.2018 - 18.Dec.2018
2011	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSISTANT PROFESSOR	International	Workshop on Neutrino-Nucleus Interactions in the Few-GeV Region in Dehradun,U.K	07.Mar.2011 - 11.Mar.2011
2004	SEMINAR ATTENDED	MEMBER	International	WHEPP-8, 8 th workshoop on High Energy Physics Phenomenology,	04.Jan.2004 - 08.Jan.2004
2004	NATIONAL/ INTERNATIONAL FELLOWSHIPS (IOE, FRSC, etc.) ATTENDED	MEMBER	International	Summer School on Particle Physics, during June-2004 (Held at the Abdus Salaam International Center for Theoretical Physics, Miramere Trieste , Italy )	03.Jun.2004 - 30.Jun.2004
2005	INVITED LECTURES/ RESOURCE PERSON/ PAPER PRESENTATIONS ATTENDED	MEMBER	International	.A.E -B.R.N.S, symposium on High Energy Physics	03.Dec.2005 - 11.Dec.2005
2006	SEMINAR ATTENDED	MEMBER	International	Symmetries Extra dimensions and Uni ed Theories	02.Mar.2006 - 06.Mar.2006

**Prof. BIPIN SINGH KORANGA**