

Kumaun University, Nainital

Curriculum Vitae

Name : Shuchi Bisht

Designation : Professor

Department : Physics

Contact Information

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Educational Qualification

Degree	University	Subjects	Year
B.Sc.	Kumaun University	Physics .Maths, Chemistry	1983
M.Sc.	Kumaun University	Physics	1985
Ph.D.	Kumaun University	Physics	1992

Work Experience

Position	Department	University/Organization	Year
Professor	Physics	Kumaun University	2013
Associate Professor	Physics	Kumaun University	2010
Reader	Physics	Kumaun University	2007
Lecturer	Physics	Kumaun University	1998

Administrative Responsibilities

Position	Nature of responsibility	University/Organization	Year
Director, Development & Planning Cell	Regarding Development & Planning of the University	Kumaun University, Nainital	2023 - till date
Director, Kumaun University Innovation and Incubation Centre(KUIC)	To develop a culture of innovation and entrepreneurship in the University	Kumaun University, Nainital	2020-2021
President, Institution Innovation Council, an initiative of Ministry of Education, Government of India.	To develop a culture of innovation and entrepreneurship in the University	Kumaun University, Nainital	2020-2021
Director, Internal Quality Assurance Cell(IQAC)	Developing and implementing quality assurance policies and procedures	Kumaun University, Nainital	2018-2019
Honorary Librarian of Central Library	Enrichment and modification of Central Library.	Kumaun University, Nainital	2017-2018
Convener, Library Science	Convener of the department.	Kumaun University, Nainital	2017-2018
Campus Head	Head of the Department of D.S.B Campus.	D,S.B.Campus, Kumaun University, Nainital	2016-2018
Member, Academic Council,	Framing of academic policy, approval of courses, regulations and syllabi etc	Kumaun University, Nainital	Since 2016

Member of Board of Studies in Physics	Framing of academic policy, approval of courses, regulations and syllabi	Kumaun University,Nainital	Since 2016
Member, Executive Council	Decisions on academic, administrative, personnel, financial, and developmental matters.	Kumaun University,Nainital	2010-2011
Member, Academic Council	Framing of academic policy, approval of courses, regulations and syllabi etc	Kumaun University,Nainital	2010-2011
Member, University Court, Kumaun University, Nainital	--	Kumaun University,Nainital	
Member and Coordinator of Undergraduate and Postgraduate Admission Committee.	Admission	Kumaun University,Nainital	
Incharge Department Library	Regarding Library	Kumaun University,Nainital	
Seminar Incharge	Conducting seminars of PG students	Kumaun University,Nainital	
Incharge, Physics Association	Academic and cultural activities of the students	Kumaun University,Nainital	
Member of various Selection Committee	Selection	Different universities and organizations	

Research Interests

High Energy Physics and Astroparticle Physics.

Publications

a) Research Papers

Authors name	Title of the paper	Name of the Journal/Vol.Page No.	Year
S Bisht and N Hothi	Visualization of light tetraquarks under the five-dimensional SU(2) Representation	Indian Journal of Physics(Springer Journal) https://doi.org/10.1007/s12648-024-03075-w	2024
Garima Punetha, Arita Bandyopadhyay, Shuchi Bisht	SU(2) Dual QCD Quark-Hadron Phase Transition in the Presence of Non-Vanishing Chemical Potential	Phys.Part.Nucl.Lett20 (2023) 6, 1466-1472 DOI: 10.1134/S1547477123060304	2023
Garima Punetha, Arita Bandyopadhyay, Shuchi Bisht	Dual QCD thermodynamics at finite temperature and chemical potential	International Journal of Modern Physics A (World scientific) , 37, 27 ,2250175 DOI: 10.1142/S0217751X22501755	2022
Navjot Hothi and Shuchi Bisht ;	Insight of the relation between Regge theory and Hadron dynamics;	Indian Journal of Physics(Springer Journal) DOI 10.1007/s12648-020-01938-6	2021
Navjot Hothi, Amit Awasthi, Shuchi Bisht	A perspective Interrogation of Students' Epistemological Beliefs &Anticipation of Studying Physics as an Introductory Course in Computer Science Engineering	International Journal of Innovative Technology & Exploring Engineering 8,12	2019
N Hothi, S Bisht	Validation of Hadron Mass Quantization from Experimental Hadronic Regge Trajectories	Electronic Journal of Theoretical Physics EJTP 14, No. 37 ,179	2018
G. Bhakuni, N. Hothi and S. Bisht	Indication of subsistence of magnetic charge from 70 MeV mass Quanta	Hadronic Journal (HPress USA)38,4,465	2015

MCKarthick, AR Lopez, DKSahu, BB Sanwal, Shuchi Bisht	Photometric and Spectrophotometric Studies of Star Forming Regions within Wolf-Rayet Galaxies	Monthly Notices of Royal Astronomical Society 439,157	2014
Navjot Hothi and Shuchi Bisht	Relation of the String Tension Among Quarks with Various Distinctive Features of QCD.	Electronic Journal of Theoretical Physics 10, 28, 81	2013
Navjot Hothi and Shuchi Bisht	Contemporary Physics Teaching using Mathematica Software	International Journal of Innovative Research and Development, 2,2 12	2013
Gaurav Bhakuni and Shuchi Bisht	Canonical Quantization of Dyon-Dyon Interaction	Hadronic Journal, Had. Press(USA) 35,609	2012
Navjot Hothi and Shuchi Bisht	Role of Mathematica Software in Physics Teaching	The Bede Athenaeum .3, 1, 31	2012
Navjot Hothi and Shuchi Bisht	Pomeron Physics and Glueball Regge Trajectories.	Hadronic Journal, Had. Press (USA) 35,,3 ,237	2012
CP Pandey,U D Goswami,H Dehnen and S Bisht	Anharmonic Vibration in Pulsating Stars.	Indian Journal of Physics 86,,9,849	2012
WUddin, Schmieder,RChandra,A KSrivastav, Pkumar, S Bisht	Observations of Multiple Surges Associated with Magnetic Activities in AR 10484 on 2003 October 25	The Astrophysical Journal 752 (1),	2012

CPPandey,TMorel,M.Briquet,K Jaykumar, S. Bisht and B.B.Sanwal	A Spectroscopic Study of the Hybrid Pulsator Gamma Pegasi.	Communication In Asteroseismology, 162 .21	2011
Navjot Hothi and Shuchi Bisht	Mesonic and Baryonic Regge Trajectories with Quantized Masses.	Indian Journal of Physics 85,12 ,1833	2011
Navjot Hothi and Shuchi Bisht	Astrophysical Relevance of Strange Quarks	Archives of Physics Research 3, 89	2010
PankajKumar,Wahab Uddin,AlokTaori,Ramesh Chandra, Shuchi Bisht	Ionospheric Response to the space Event of 18 November, 2003 An Investigation.	Indian Journal of Radio and Space Science 39,290	2010
Shuchi Bisht , . Navjot Hothi and Gaurav Bhakuni	Phenomenological Analysis of Hadronic Regge Trajectories	Electronic Journal of Theoretical Physics 7(24) (2010)299	2010
Navjot Hothi and Shuchi Bisht	Role of Spatial String tension Under the QCD Phenomenology.	Archives of Physics Research 4, 89	2010
Gaurav Bhakuni and Shuchi Bisht	Relativistic Effects in the Bound States of Electric Charge – Dyon System	Indian Journal of Physics 83(12) (Springer) 1711	2009
Navjot Hothi and Shuchi Bisht	A Comparative Analysis of Mesonic.Baryonic and Glueball Regge Trajectories	Indian Journal of Physics (Springer) 88 (II) ,1563.	2008
Navjot Hothi and Shuchi Bisht	Linearity of Regge Trajectories and its Corelation with Quantized Hadronic Masses.	HadronicJournal (USA) 32.513	2009

Gaurav Bhakuni and Shuchi Bisht	Interaction of an Electric Charge in the Radial Field of a Heavy Dyon;	Indian Journal of Physics 88 (II) , 1563.	2008
Shuchi Bisht and B.S.Rajput	SUSY Breaking at Finite Temperature	Indian Journal of Pure & Applied Physics Vol. 38, 430.	2000
Shuchi Bisht and B.S.Rajput	SUSY QM in First-order Dirace Equation,	Euro physics. Letters 50 (6) ,731.	2000
Shuchi Bisht and B.S.Rajput	Quantization in Super Symmetric Complex Space – Time	New Directions in Relativity & Cosmology (Hadronic Press) (U.S.A.) 1997, ISBN 1-57485-30X, 79.	
Shuchi Bisht and B.S.Rajput	Super Symmetry in Complex Space Time.	PRAMANA -Journal of Physics. 44 (6) 501. " 11.	1995
Shuchi Bisht and B.S.Rajput	Lorentz Group in Complex 3Dimensional Space,	Indian Jour Pure & Applied Physics. 29	1991
Shuchi Bisht and B.S.Rajput	Super Symmetry at Finite Temperature,	Euro physics Letter 11 (8) 719.	1990
Shuchi Bisht and B.S.Rajput	Realization of Generators of Complex Angular Momentum,	Canadian Journal of Physics, 68 599.	1990
Shuchi Bisht and B.S.Rajput	Relativistic Formulation in Complex Space - Time Geometries	Indian Journal of Pure and Applied Physics, 28 ,21.	1990

b) Books

Authors name	Title of the book	Publisher	ISBN	Year
Navjot Hothi and Shuchi Bisht	“Regge Trajectory Phenomenology and its Impact on QCD (Experimental and Theoretical Visualizations)”	<i>Lambert Academic Publishing, Germany</i>	978-3-8433-8558-9	2010

c) Book chapters

Authors name	Title of the book	Publisher	ISBN	Year
Shuchi Bisht	Human Rights and Challenges for Women in India	Anamika Publishers and Distributers	978-81-7975-969-1	2019

d) Conference Publications/Proceedings

Authors name	Title of the paper	Conference name	Year
Navjot Hothi and Shuchi Bisht	Coherence between Magnetic Charge and 70 MeV Mass Quanta of Hadrons	DAE symposium on Nuclear Physics 57,624 (2015)624	2015
Navjot Hothi and Shuchi Bisht	Study of Stellar Objects with Strange Quark Matter Crust.	DAE symposium on Nuclear Physics 57 ,624	2012
Navjot Hothi and Shuchi Bisht	Determination of the True Nc Limit of the Baryons from the QCD Phase Diagram	DAE Symposium on Nuclear Physics 57 ,814	2012
Navjot Hothi and Shuchi Bisht	Impact of the String Tension Parameter on Several Characteristic Features of QCD.	DAE Symposium on Nuclear Physics 56, E 37, 762	2011

Navjot Hothi and Shuchi Bisht	Visualizations of the Valid Nc Limit for the Baryonic Sector	National Conference on NCRTIRASS- 2012,70	2012
Navjot Hothi and Shuchi Bisht	Analysis of Pure Experimental Hadronic Regge Trajectories	DAE Symposium on Nuclear Physics 55(2010)568	2010
Navjot Hothi and Shuchi Bisht	Observational Analysis of some Pulsating Variable Stars,	IX International Conference on Vibrational Problems. Sect 10A 90	2009
Navjot Hothi and Shuchi Bisht	Some Non-Trivial aspects of Mesonic, Baryonic and Glueball Regge Trajectories	97th Indian Science Congress, section 13, E, 120	2009
Shuchi Bisht and B.S.Rajput	Angular momentum Operators in Complex Space - Time	Einstein Foundation International, 8 .37	1991

Teaching details

Name of the course/paper	Department	University
High Energy Physics	Physics	Kumaun University
Elementary Particle Physics	Physics	Kumaun University
Mechanics,properties of matter & Theory of oscillations	Physics	Kumaun University
Wave motion and acoustics	Physics	Kumaun University
Quantum Mechanics	Physics	Kumaun University
Waves and Oscillations	Physics	Kumaun University
Mechanics and Properties of Matter	Physics	Kumaun University
Mechanics	Physics	Kumaun University
Optics	Physics	Kumaun University

Professional Memberships

Organization	Position
The Indian Science Congress Association, Kolkata, India.	Life Member,
Indian Association of Physics Teachers' (IAPT), Kanpur.	Life Member

Conference Presentations

Title of presentation	Conference name	Name of the institution	Year
Women empowerment through entrepreneurship	Webinar on Women Entrepreneurs of Uttarakhand	Kumaun University- Innovation and Incubation Centre	2020
How fruitful is the New Education Policy?	Webinar on New Education Policy: Self Reliant Nation via Innovation	Kumaun University- Innovation and Incubation Centre	2020
Assessment and Accreditation process in In higher education institutions (HEIs)	Training workshop	Kumaun University (IQAC Assessment and Accreditation (NAAC), Bengaluru.	2019
The Elusive Particle : Higgs Boson	Refresher Course	Academic Staff College, Kumaun University, Nainital	2013
Higgs Boson: Evolution and Revolution	National conference On recent trends in Interdisciplinary Research and astrophysics Space Science	Department Of Physics, M.B.College Haldwani.	2012
Waves and Oscillations: A Brief Introduction	Science Camp in Nainital under SEAT-INSPIRE scheme DST, Govt. of India.	Kumaun University, Nainital	2010

Linearity of Regge Trajectories and its Correlation with Quantized Hadronic Masses.	National Conference on Atomic, Molecular and Nuclear Physics,	M.M.H. College, Ghaziabad, November.	2009. .
Attitude of youth towards NSS	National Conference of NSS	Dehradun	2007
Strange Behaviour of Strange Quarks	5 th Uttarakhand Science Congress	UCOST	
Towards Unification of Forces'.	National Symposium on 'Relevance of Einstein's Contribution in 21st Century',	Department of Physics, Kumaun University, Nainital,	2006
Importance or English in Science Education'.	Workshop on 'Scientific and Technological Words' sponsored by Ministry of Human Resource and Development, New Delhi	D.S.B. Campus, Kumaun University, Nainital	2006
Neutrino -Oscillation	Refresher Course	Academic Staff College, Osmania University, Hyderabad	2004
Building Block of Universe.	IUCCA sponsored Workshop on Astrophysics,	Department of Physics Kumaun University, Nainital	2004
Quarks: Are they really Elementary?	Orientation Programme	Academic Staff College, University of Lucknow	2001
Hadronic Regge Trajectories with Quantized Masses	4th Uttarakhand Science Congress,	G.B.Pant University. Pantnagar	2009
Intense relationship between Particle Physics and Astrophysics'	IUCAA sponsored workshop on Astrophysics.	Department of Physic Kumaun University, Nainital,	2004

SUSY Breaking at Finite Temperature	. National Seminar on 'Breaking of Supersymmetry'	Department of Physics Kumaun University, Nainital,	1999
An Integral Approach towards Research In Physics'. ,	National Seminar on Research Methodology	Department of Physics Kumaun University, Nainital	1999
'Vedic Mantras - A Scientific Outlook'.	National Seminar on " Science in Ancient India",	Department of Physics Kumaun University, Nainital	1999
Complex Three Dimensional Space'.	IX High Energy Physics Symposium,	I.I.T. Campus, Madras,	1988
'Relativistic Formulation in Complex Space-Time Geometries'	International Seminar on High Energy Physics,	Saha Institute, Calcutta,	1986
Angular Momentum Operators in Complex Space-Time	Global Conference on Mathematical Physics,	Einstein Foundation International, Nagpur,	1987



Signature of the faculty member