RESUME OF DR. SUNEEL KUMAR

Name	Dr. Suneel Kumar
Place of Birth	Jawali, District Kangra, (H.P.) India
Field of Research:	Theoretical Nuclear & Intermediate Energy Physics, Computational Physics, Radiation Physics, Irradiation Food Technology
Permanent Address:	Dr. Suneel Kumar, # 55/B2, Dharampur Colony, Pinjore, Teh. Kalka, Distt. Panchkula (H.R.).

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Scientific Research Publications:

Journals:……..…….**98**
Conferences:…..…….. ..……..…….. ……**122**
Ph.D. Guided:……..……**11**
M.Sc. Theses Guided:……..…….. ……..**30**

Citations: ……...1225
H-index :……..18
i10-index ……..20

Teaching Experience: 17 Years
Research Experience: 21 Years

Educational Qualification :

Degree	Board/University	Year	Division
Matriculation	Haryana Board of School Education, Bhiwani	1989	First
10+2(Non Med)	Haryana Board of School Education, Bhiwani	1991	First
B.Sc.(Non med)	Kurukshetra University, Kurukshetra	1994	First
M.Sc.(Physics)(H.S.)	Panjab University, Chandigarh	1996	First
Ph.D.(Nuclear Physics)	Panjab University, Chandigarh	March 2000	

Title of the Thesis: Theoretical study of multifragmentation in intermediate energy heavy ion collisions
Thesis Supervisor: Dr. Rajeev K. Puri, Professor, Deptt. of Physics, Panjab University, Chandigarh**.**

Research Project Handled:

S.No.	Title of Project	Funding Agency	Amount of Grant in Lakhs	Duration
1.	Searches for rare B decays and CP violation at KEK B-factory	Department of Science and Technology (DST) New Delhi (India) SR/FTP/PS-79/2001	9.0	16/12/2002 To 31/12/2003
2.	Isospin dependence of nuclear equation of state and Multifragmentation	Council of scientific And industrial research (CSIR) Delhi (India) 03(1062)/06/EMR-II	9.47	16-06-2006 To 15-06-2009
3.	Isospin effects on flow and related phenomena in intermediate energy heavy ion collisions	University Grant Commission(UGC), New Delhi 39-858/2010(SR)	6.09	01-02-2011 To 31-01-2014
4.	The quest for the nuclear equation of state in intermediate energy heavy ion Collisions	Department of Science and Technology (DST), New Delhi SR/S2/HEP-21/2010(G)	14.25	23-11-2011 To 22-05-2015
5.	Theoretical study of heavy ion dynamics at superconducting Cyclotron (K500-SCC) energies at VECC.	Department of Atomic Energy (DAE), Mumbai (India) 2012/37P/16/BRNS	14.58	06-06-2012 To 31-03-2015
6.	Influence of isospin degree of freedom on disappearance of directed and elliptical flow in intermediate energy heavy ion collisions	Council of scientific And industrial research (CSIR) Delhi (India) 03(1231)/12/EMR-II	11.82	10-10-2012 To 29-02-2016

Foreign Visits (For research purpose only)

[1] Visited KEK high Energy Accelerator Laboratory, Tsukuba, Japan from Jan 2000 to Jan 2001.

[2] Visited Seoul National University, at Seoul (Korea) from Dec 18th, 2000 to Dec 23rd 2001.

[3] Visited KEK high Energy Accelerator Laboratory, Tsukuba, Japan from June 2001 to Jan 2002.

[4] Visited KEK high Energy Accelerator Laboratory, Tsukuba, Japan from June 2002 to Dec 2002.

[5] Visited Tokyo, Japan to attend International Nuclear Physics Confeence (INPC2007), from June 3-10, 2007.

[6] Visited Vancouver, Canada to attend International Nuclear Physics Conference (INPC2010) from July 4-9, 2010.

[7] Visited Zakopane, Poland to attend Zakopane Conference on Nuclear Physics (2014) from 31 Aug- 7 Sep, 2014.

Experience/Employment

[1] Guest Lecturer in Physics at Panjab Engineering College, Chandigarh from Aug 1996 to Oct 1996.

[2] Junior research fellow of Department of Atomic Energy(DAE) India, at Physics Department, Panjab University, Chandigarh from Nov 1996 to Nov 1998.

[3] Senior research fellow of Council of Scientific and Industrial Research(CSIR) at Department of Physics , Panjab University, Chandigarh from Nov. 1998 to Dec 1999.

[4] Post-Doc fellow of High Energy Group of Panjab University, Chandigarh worked at KEK High Energy Accelerator lab, Tsukuba, Japan from 7-1-2000 to 16-12-2002.

[5] Research Scientist in DST sponsored project under fast track scheme, executed at Physics Department, Panjab University, Chandigarh from 16-12-2002 to 31-12-2003.

[6] Lecturer in Physics at Thapar University, Patiala from 1-1-2004 to 10th September 2009.

[7] Assistant Professor in Physics at Thapar University, Patiala from 10th September 2009 to 25th August 2010.(AGP Rs. 7,000) in the scale 15,600-39100.

[8] Assistant Professor in Physics at Thapar University, Patiala from 25th August 2010 to 22nd April 2011.(AGP Rs. 8,000) in the scale 15,600-39100.

[9] Assistant Professor in Physics at Thapar University, Patiala from 22nd April 2011 to 1st July 2011. (Basic pay Rs. 30,000 + Rs. 8,500 AGP) in the scale 15,600-39100.

[10] Assistant Professor in Physics at Thapar University, Patiala from 1st July 2011 to 17th April 2012. (Basic pay Rs. 37,400 + Rs. 9,500 AGP) in the scale in the scale 15,600-39100.

[11] Associate Professor in Physics at Thapar University, Patiala from 17th April 2012 to 31st March 2016. (Basic pay Rs. 50,560 + Rs.10,000 AGP).

[12] Professor in Physics at Chandigarh University, Gharuan (Mohali) from 16th May 2016 to 14th August 2018.

[13] Associate Professor, Department of Physics, Central University of Haryana from 20th August 2018 to till date.

Administrative Experience:

[1] Warden Hostel B at Thapar University, Patiala from 1st April 2013 to 13th March 2015.
[2] P. G. Incharge from 2013 to 2015.
[3] U.G. Lab incharge from 2010 to 2015
[4] Chairman of the departmental space committee 2013 to 2015.
[5] Head of the Department of Applied Sciences (Physics Group) at Chandigarh University from 13th June 2016 to 14th August 2018.
[6] Centre Superintendent for End Semester Examination May 2017 at Chandigarh University.

[7] Head of the Department of Physics, Chandigarh University, Gharuan from 6th August 2017 to 14th August 2018.

[8] Deputy Superintendent, End Semester Examinations, May-June 2019, Central University of Haryana.
[9] Head, Department of Physics, Central University of Haryana, Mahendergarh, from 01-11-2019 to till date.
[10] Dean, School of Physical and Mathematical Sciences, Central University of Haryana, Mahendergarh from 01-11-2019 to 19-03-2020.
[11] Nodal officer, Central Computing Facility, Central University of Haryana from 20-11-2019 to till date.
[12] Provost (Incharge Boy Hostel), Central University of Haryana, since 08-09-2021.

Project Guided at B.E. Students

[1] "Space : The Ubiquitous Source of Energy"
Abhishek Tayal and Devansh of B.E. 2nd year Students, won 2nd prize at SEDS International Conference-2007 held at Vellore.

[2] "Lightening Power Plant"
Gurjinder Singh and Abhishek Aggarwal of B.E. 2nd students, Agilent Engineering Technology Awards, June 2008 (New Delhi).

Subjects Taught

S. No.	Subjects	Class
1.	Engineering Physics	Undergraduate
2.	Advanced Engineering Physics	Undergraduate
3.	Elements of Electronics Engineering	Undergraduate
4.	Materials Science	Undergraduate
5.	Quantum Mechanics	Post Graduate
6.	Advanced Quantum Mechanics	Post Graduate
7.	Electronics	Post Graduate
8.	Digital Electronics	Post Graduate
9.	Advanced Nuclear Physics	Ph.D.
10.	Nuclear Power Engineering	Undergraduate
11.	Nuclear Reactor Physics	Undergraduate
12.	Semiconductor Physics and Electronic Devices	Postgraduate
13.	Nuclear Physics	Postgraduate
14.	Intermediate Energy Nuclear Physics	Postgraduate
15.	Nuclear & Particle Physics	Postgraduate
16.	Nuclear Physics: Interaction and Model	Postgraduate

Workshop Organized:

[1] National workshop on Non-Destructive Testing of Materials, Thapar University, Patiala, Nov 16-22, 2006.

Invited Talks

[1] "Isospin effect on observables in heavy ion collisions" in National Seminar on Challenges in Physics at Punjab University, Chandigarh on March 1, 2008.

[2] Isospin effects on elliptical flow at intermediate energies National Theme Workshop on Nuclear Reaction Mechanism, Panjab University Chandigarh, March 17-19 (2010).

[3] Study of reaction dynamics at VECC energies, National Workshop on "Nuclear Physics using Ion beam from cyclotron at VECC", Aug 24-26, 2011, VECC Kolkata.

[4] "Elliptical flow at intermediate energy", Int. Conference on Recent Trends in Nuclear Physics (ICRTNP), Chitkara University, Nov 19-21, 2012, Baddi (H.P.)

[5] Anisotropic flow at intermediate energies: Isospin effects (Invited Talk). National Conference on Emerging Challenges in Nuclear Physics and Many-body Physics (ECNMP 2014), Nov 10-11, 2014, Jammu, (India).

[6] "Correlation between elliptical flow and nuclear stopping in heavy ion nuclear reactions" Online International Conference on Theoretical Aspects of Nuclear Physics, 15-20 Feb, 2021, Organized by Department of Physics, Central University of Himachal Pardesh.

Reviewer

[1] European Physics Journal A, Springer

[2] International Journal of Modern Physics E. World Scientific

[3] Physics Research International, Hindawi

[4] Indian Journal of Physics

Course Curriculum Developed

[1] Developed course materials of Nuclear Physics, Particle, Electronic Devices, Electronic ciecuits, advanced quantum mechanics, computational methods in physics of M.Sc. Physics scheme started at Thapar University from the 2007-08

Co-curricular activities:

[1] Member of National service scheme, Govt. Sr. Sec. School, Kalka, in 1990-91
[2] President of science society, Govt. college Kalka (H.R.) in 1993-94.
[3] Vice-president of Physics Association, Deptt. of Physics, Panjab University, Chandigarh 1997-98.
[4] Life member of Indian Physics Association from 2003 to till date. (CHA/LM/11989)
[5] Vise President of Material and Physics Society (MAPS) at Thapar University, Patitala from 2007 to 2013.
[6] Program officer in National Service Scheme (NSS) from October 2011 to 2015

[7] Life Membership, Indian Society for Radiation Physics (ISRP), November 2019.

Refresher/Training course attended:

[1] The **66th General Orientation course** at Academic Staff College, Panjab University, Chandigarh, June 1-28, 2005.
[2] **Refresher course** in physics at School of Physics and Material Science, Thapar Institute of Engineering and Technology, Patiala, Dec12-31, 2005.
[3] One week training as **Program officer of National Service Scheme** (NSS), Dec 12-18, 2012, Punjabi University Patiala (Punjab).
[4] Orientation and faculty development program, July 1-15, 2016, Chandigarh University, Gharuan, Mohali (Punjab).
[5] International faculty development program, July 10-14, 2017, Chandigarh University, Gharuan, Mohali(Punjab)
[6] Training course on "**Safety Aspects in Research Application of Ionizing Radiation RS-50"** November 12-20, 2018, IARP, BARC, Mumbai.

[7] One day Faculty Induction Program, 13th December, 2018, Central University of Haryanna, Mahendergarh.
[8] One week Faculty Development Program on" **Development and delivery of MOOCS and E-contents**" 26th June to 1st July 2020 (Online) by Deshbandhu College, Delhi and Central University of Haryana, Mahendergarh.
[9] One week online workshop on" **Applications of Mathematical and Statistical Tools**" March 20-24, 2021, Organized by Central University of Haryana, Mahendergarh, under Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNMTT) Scheme.

Books Written

[1] Elements of electronic engineering by Suneel Kumar and Manoj Sharma, Published by Department of distance education, Thapar University, Patiala.
[2] Elements of Engineering Physics by Suneel Kumar, To be published by Macmillan India Pvt. Ltd, Currently writing the book.

Conferences Attended/Talk Delivered:

[1] *"Importance of correlations in heavy ion reactions"* Presented at 40^{th} DAE Symposium on nuclear physics, Bangalore (India), Dec 26-30, 1997.

[2] "*Multifragmentation in the simulation os Ca-Ca collisions"*, Presented at Workshop on nuclear structure physics, Chandigarh (India), March17-20, 1998.

[3] *"Attended III SERC school on nuclear physics at intermediate energies",* Presented at Variable Accelerator Cyclotron Center, Calcutta, India, Nov2-21, 1998.

[4] *"Does multifragmentaton depend on equation of state?"* Presented at 41^{st} DAE Symposium on nuclear physics , Bhabha Atomic Research Center, Mumbai (India) Dec 21-24, 1998.

[5] *"Theoretical study of multifragmentation in intermediate energy heavy ion collisions"* 42^{nd} DAE symposium on nuclear physics, Panjab University, Chandigarh(India), Dec 27-31, 1999.

[6] *"KLM response to K_L, $\pi^{\pm}$, and $K^{\pm}$ "* Presented at Belle Group meeting at Tohuku University, Sendai (Japan), Sept 11 2000.

[7] *"Measurement of Branching fraction of χ_{c1} +X with Belle"* , Presented at Belle Analysis Meeting at Seoul National University, Seoul (Korea), Dec 18-19, 2000.

[8] *"Frontier in Flavor Physics-The fifth KEK topical conference"* Attended at KEK High Energy Accelerator Lab, Tsukuba(Japan), Nov 20-22, 2001.

[9] *"91^{st} Indian Science Congress 2004"* attended at Panjab University, Chandigarh Jan 3-7, 2004. *"Momentum Correlations and Multibounded complex fragments in heavy ion collisions"* Presented at National conference on Advances in condensed matter physics 2005, Thapar Institute of Engineering and Technology, Patiala, Feb 11-12, 2005.

[10] *"Enhancement in Multifragmentation due to Momentum Dependent Interactions"* Presented at 50^{th} DAE symposium on nuclear physics at Bhabha Atomic Research Center, Mumbai (India) Dec 12-16, 2005.

[11] *"Review of heavy ion collisions and its equation of state".* National Conference on Emerging Trends in Engineering Materials, Thapar University, Patiala, Feb 1-3, 2007.

[12] *"Effect of equation of state on nuclear matter."* National Conference on Emerging Trends in Engineering Materials, Thapar University, Patiala, Feb 1-3, 2007.

[13] "Effect of nuclear equation of state on multifragmentation at intermediate energies" International Nuclear Physics Conference (INPC2007), June 3-8, 2007, Tokyo, Japan.

[14] "Isospin effect on observables in heavy ion collisions" in National Seminar on Challenges in Physics at Punjab University, Chandigarh on March 1, 2008.

[15] Impact parameter dependence of momentum quadrupole in symmetric reactions. DAE-BRNS Symposia on Nuclear Physics, IIT Roorkee, Dec 22-26, 2008.

[16] Isotopic effects in the production of different fragments for asymmetric systems. Indian Nuclear Society National Seminar on "Nuclear Technology for Sustainable Development (NTSD-09), Thapar University, Patiala, 10-11, October 2009.

[17] A comparative study of excitation function of elliptical flow with experimental findings and system size dependence. DAE-BRNS Symposia on Nuclear Physics, Dec 08-12, 2009, BARC, Mumbai.

[18] Isospin effects on elliptical flow at intermediate energies National Theme Workshop on Nuclear Reaction Mechanism, Panjab University Chandigarh, March 17-19, (2010).

[19] Effect of isospin dependent cross-section on the transverse in plane flow at intermediate energy. International Nuclear Physics Conference (INPC2010), Vancouver (Canada), July 4-9, 2010.

[20] Interaction meeting on the theoretical nuclear physics. Indian Institute of Technology, Roorkee, September 3-5, 2010.

[21] Neutron-proton Pt-differential sideward flow as a probe for symmetry energy, DAE symposium on nuclear physics, Delhi University, Dec. 2-6. 2012.

[22] Correlation between temperature, density and nuclear stopping in heavy ion collisions. DAE symposium on nuclear physics, Bhabha Atomic Research Center (BARC), Dec. 2-6. 2013.

[23] Influence of isospin dependence of radius on fragmentation in heavy ion collisions, Anupriya Jain, Sangeeta and Suneel Kumar, poster presented in Int. Conf. on Matter at Extreme Conditions: Then and Now, Bose Institute, Kolkatta 15-17 Jan 2014.

[24] Role of isospin momentum dependent interactions in extreme conditions, Navjot Kaur Virk, Karan Singh Vinayak and Suneel Kumar, poster presented in Int. Conf. on Matter at Extreme Conditions: Then and Now, Bose Institute, Kolkatta 15-17 Jan 2014.

[25] Anisotropic flow at intermediate energies: Isospin effects (Invited Talk). National Conference on **Emerging Challenges in Nuclear Physics and Many-body Physics (ECNMP 2014),** Nov 10-11, 2014, Jammu, (India).

[26] Workshop on "Recent trends in nano science and technology", 3rd -7th July, 2017, Chandigarh, University, Gharuan, Mohali (Punjab).

[27] Ingestion dose due to Radon concentration in drinking water of Panipat, District of Haryana, India 22nd National Symposium on Radiation Physics, 8-10 November 2019 at Jawaher Lal Nehru University, New Delhi.

[28] International webinar on " **Mental health and you: learn to be responsible**" 18th July 2020 organised by Department of Psychology, Central University of Haryana, Mahendergarh.

Ph.D.	**Thesis Supervised**				
S.No.	**Degree**	**Title**	**Year**	**Name of**	**Co-Supervisor**
			Awarded	**Student**	
1	Ph.D.	Dynamics of heavy ion collisions at intermediate Energies	Completed 18/09/2010	Sanjeev Kumar Regn. No. 90712002	N.A.
2	Ph.D.	Influence of NN collision .on nuclear flow	Completed 14/10/2011	Varinderjit Kaur Regn. No. 900812006	Dr. Rajeev K. Puri
3	Ph.D.	Study of isospin effects in The heavy ion collision at intermediate energies	Completed 26/10/2012	Rajni Regn No. 900912013	Dr. Rajeev . K Puri
4	Ph.D.	Study the effect of density dependence of symmetry energy on fragmentation in heavy ion collisions at intermediate energies	Completed 18/09/ 2013	Karan Singh Vinayak 900912024	N.A.
5.	Ph.D.	Influence of charge asymmetry in heavy ion collisions at intermediate Energies	Completed 19/11/2013	Anupria Jain 901012003	Dr. Rajeev K. Puri
6.	Ph.D.	The Study of Nuclear equation of state using stopping and anisotropic flow	Completed 25/05/2016	Mandeep Kaur 901112019	N.A
7.	Ph.D.	Study of correlation between nuclear flow and stopping in heavy ion collisions	Completed 02/11/2017	Rubina Bansal 901112005	N.A
8.	Ph.D.	Role of input ingredients of model on fragment production, flow and stopping	Completed 23/07/2018	Amandeep Kaur 901312002	N.A.
9.	Ph.D.	To study the influence isospin and rapidity distribution on anisotropic flow	Completed 26-06-2019	Kamaldeep Kaur 901312007	N.A.
10.	Ph.D	Theoretical study of nuclear flow and stopping at Intermediate energy.	Completed 26-04-2019	Deepshikha 901412010	N.A

11	Ph.D.	Comprehensive study of natural radiation level on human health in central part of Haryana(India)	Completed May 2018	Amanjit 14YPY1001	Dr. Ajay Kumar, DAV college Amritsar
12	Ph.D.		Joined in March 2020	Dhanpat Sharma	N.A.
13.	Ph.D.	Study of natural radionuclides and dose estimation in the soil, water and food samples	Joined in March 2021	Kavita Chahal	Dr. Savita Budhwar
14.	Ph.D.			Rekha	Dr. Ranjeet Singh
15.	Ph.D.	Development and characterization of value added products from by-product of cereals and pulses	2018	Manali Chakarborty	Dr. Savita Budhwar

M.Sc. Thesis Supervised/Supervising

S.No	Degree	Title	Year Awarded	Name of Student
1	M.Sc.	Elliptical flow in heavy ion nuclear reactions	2009	Kirandeep Kaur 30404007
2	M.Sc.	Multifragmentation in heavy ion collisions	2009	Ravinder Goyal 30704014
3	M.Sc.	Isospin dependence of nucleaon nucleon cross-section in heavy ion collisions.	2009	Supreet Kaur 30704019
4	M.Sc.	Nuclear Stopping in heavy ion collisions	2009	Maninder Kaur 30704008
5	M.Sc.	Mass dependence of intermediate mass fragment in fragmentation	2010	Bhawna Sharma 300804003
6	M.Sc.	Systematic study of multifragmentation by using IQMD model.	2010	Bahadur Singh 300804002
7	M.Sc	Isospin dependence of balance energy in heavy ion collisions.	2010	Dolly Sood 300804005
8	M.Sc.	The clusterization algorithms in Multifragmentation	2010	Ekta 30804007
9	M.Sc.	Role of momentum dependent interactions on nuclear stopping	2010	Mandeep Kaur 300804013
10	M.Sc.	Study of spatial correlations on fragmentation	2011	Pallavi Gupta 300904008
11	M.Sc.	Influence of symmetry energy on fragment Production	2011	Rubina Bansal 300904013
12	M.Sc.	Influence of mass asymmetry on reaction	2011	Depinder Kaur

		Dynamics		300904019
13	M.Sc.	Relative contribution of different potentials in the estimation of directed flow	2012	Ankita Sharma 301004020
14	M.Sc.	Impact parameter dependence of elliptical flow at intermediate energy	2012	Shitu Raheja 301004015
15	M.Sc.	Correlation between nuclear stopping and directed flow at intermediate energy	2012	Yoshita Ahuja 301004019
16	M.Sc.	Mass asymmetry dependence of elliptical flow at intermediate energy	2013	Sangeeta 301104013
17	M.Sc.	Influence of isospin momentum dependent interaction on transverse flow	2013	Amandeep Kaur 301104003

18	M.Sc.	Analyzing the role of fragment charge on nuclear stopping for symmetric colliding nuclei.	2013	T. Sahil 301104017
19	M.Sc.	Nuclear stopping in mass asymmetric nuclear collisions due to isospin momentum dependent interactions.	2014	Prachi Gautam 301204006
20	M.Sc.	Role of isospin momentum dependent interactions in multifragmentation of mass asymmetric colliding nuclei.	2014	Ramandeep Kaur 301204009
21	M.Sc.	To study the thermal equilibrium in mass asymmetric nuclear reactions at intermediate energies.	2015	Himjyoti 301304003
22	M.Sc.	Mass dependence of fragment production due to participant zone at intermediate energy in heavy ion collisions.	2018	Diksha Thakur 16MSP1017
23	M.Sc.	Correlation between mass asymmetry and memory loss in heavy ion collisions	2018	Priya Saini 16MSP1030
24	M.Sc.	Measurement of radiation level due to uranium in drinking water around Sohna fault line, Haryana	2018	Anju 16MSP1093
25	M.Sc.	Required sensitivity and discovery potential of different isotopes for neutrinoless double beta decay experiments	2019	Ashish Brahmaxatriya 10827
26	M.Sc.	Preparation and Properties of A Computational Glass : A Molecular Dynamics Simulation	2019	Sunil Joshi 10856
27	M.Sc.	Synthesis of Palladium nanoparticles by pulsed laser ablation in liquid (PLAL) and their characterization	2019	Tamanna Kumari 10858
28	M.Sc.	Origin of almost invariant magnetic ordering temperature in alkali metal oxoferrates $AFeO_2$ (Where A – K, Rb, Cs)	2019	Surender Kumar 10857
29	M.Sc.	Synthesis and optical characterization of Ruby	2019	Aarti 10824
30	M.Sc.	Synthesis of silicon nanoparticles covered with silicon native oxide, their characterization, by synchrotron XRD and XPS, and correlation of native oxide thickness with crystallite size	2019	Jasveer 10834

List of Publications of Dr. Suneel Kumar

International Journals

1. Role of momentum correlations in fragment formation. Suneel Kumar and Rajeev K. Puri, Physical Review C **58**, 320 (1998).

2. Binary-breakup, onset of multifragmentation and vaporization in Ca-Ca collisions. Rajeev K. Puri and Suneel Kumar, Phys. Rev. C **57**, 2744(1998).

3. Different nucleon-nucleon cross-section and multifragmentation.
   Suneel Kumar, Rajeev K. Puri and J. Aichelin, Phys. Rev. C **58**, 1618(1998).

4. The stability of fragments formed in the simulations of central heavy ion collisions. Suneel Kumar and Rajeev K. Puri, Phys. Rev. C **58**, 2858(1998).

5. Impact parameter dependence of disapeearance of flow and in-medium nucleon-nucleon cross section. Suneel Kumar, M. K. Sharma, R. K. Puri, K. P. Singh and I. M. Govil, Phys. Rev. C **58**, 3494(1998).

6. Importance of momentum dependent interactions in multifragmentation. Suneel Kumar and Rajeev K. Puri, Phys. Rev. C **60**, 054607(1999).

7. The simulation of Ca-Ca collisions: binary break-up, onset of multifragmentation and Vaporization, Rajeev K. Puri and Suneel Kumar, Parmana –J. Phys., **53**, 453(1999).

8. Model ingredient and multifragmentation in symmetric and asymmetric heavy ion Collisions.
   Jaivir Singh, Suneel Kumar and Rajeev K. Puri, Phys. Rev. C **62**, 044617(2000).

9. Momentum dependent interactions and asymmetry of the reaction: multifragmentation as an example.
   Jaivir Singh, Suneel Kumar and Rajeev K. Puri, Phys. Rev. C **63**, 054603(2001).

10. Fragmentation production in $^{16}O+^{80}Br$ reaction within dynamical microscopic theory.
    Rajeev K. Puri, Jaivir Singh and Suneel Kumar, Parmana- J. Phys. **59**, 19(2002).

11. Medium mass fragment production due to momentum dependent interactions Sanjeev Kumar, Suneel Kumar and Rajeev K. Puri , Phys. Rev. C **78**, 064602(2008).

12. Effect of symmetry energy on nuclear stopping and its relation to the production of light charged fragments. Sanjeev Kumar, Suneel Kumar and Rajeev K. Puri, Physical Review C **81**, 014601(2010).

13. Elliptical flow and isospin effects in heavy ion collisions at intermediate energies.
Sanjeev Kumar, Suneel Kumar and Rajeev K. Puri, Physical Review C **81**, 014611(2010).

14. Systematic study of system size dependence of global stopping: Role of momentum dependent interactions and symmetry energy.
Sanjeev Kumar and Suneel Kumar, Chinese Physics Letters , **27**, No. 6, 062504(2010).

15. Systematic study of multi-fragmentation in asymmetric colliding nuclei.
Varinderjit Kaur and Suneel Kumar, Phys. Rev. C **81**, 064610 (2010).

16. Experimental balance energies and isospin dependent nucleon-nucleon cross-sections.
Sanjeev Kumar, Rajni and Suneel Kumar, Phys. Rev. C **82**, 024610 (2010).

17. A comparative study of model ingredient: fragmentation in heavy ion collisions using quantum molecular dynamics model.
Sanjeev Kumar and Suneel Kumar, Parmana Journal of Physics, **74**, No.5, 731 (2010).

18. Rapidity distribution as a probe for elliptical flow at intermediate energies.
Sanjeev Kumar, Varinderjit Kaur and Suneel Kumar, Central. European. Journal of Phys., **9**, 986 (2011).

19. On the elliptical flow in asymmetric colliding nuclei.
Varinderjit Kaur, Suneel Kumar and Rajeev K. Puri, Phys. Letts B **697**, 512(2011).

20. Multifragmentation around transition energy in intermediate energy heavy ion collisions
Karan Singh Vinayak and Suneel Kumar, Phys. Rev. C **83**, 034614 (2011).

21. On the nuclear stopping in asymmetric colliding nuclei.
Varinderjit Kaur, Suneel Kumar and Rajeev K. Puri, Nucl. Phys. A **861**, 37(2011).

22. Correlation between balance energy and transition energy for symmetric colliding nuclei.
Rajni, Suneel Kumar and Rajeev K. Puri, Phys. Rev. C **84**, 037606(2011).

23. Influence of density dependent symmetry energy on elliptical flow.
Karan Singh Vinayak and Suneel Kumar, Euro. Phys. J. A **47**, 144(2011).

24. Influence of charge asymmetry and isospin dependent cross section on nuclear stopping. Anupriya Jain, Suneel Kumar and Rajeev K. Puri, Phys. Rev. **C 84**, 057602(2011).

25. On the elliptical flow in asymmetric collisions and nuclear equation of state.
Varinderjit Kaur and Suneel Kumar, Parmana J. of Phys., **77**, 1095(2011).

26. Mass independence and asymmetry of the reaction: Multifragmentation as an example.
Varinderjit Kaur, Suneel Kumar and Rajeev K. Puri, Journal of Physics: Conference Series, **312**, 082028(2011).

27. Effect of density dependent symmetry energy on fragmentation
Karan Singh Vinayak and Suneel Kumar, Journal of Physics: Conference Series, **381**, 012032(2011).

28. On the Multifragmentation around the energy of vanishing flow using isospin dependent model.
Rajni, Suneel Kumar and Rajeev K. Puri, Nucl. Phys. A, **875,** 173 (2012).

29. Energy of vanishing flow in heavy-ion collisions: Role of mass asymmetry of a reaction.
Varinderjit Kaur and Suneel Kumar, Parmana J. of Phys., **78**, 237 (2012).

30. Effect of isospin dependent cross section on fragmentation in the collision of charge asymmetric nuclei.
Anupriya Jain and Suneel Kumar, Parmana J. of Phys., **78**, 749 (2012).

31. Anisotropic distribution of nucleon participating in elliptical flow
Anupriya Jain and Suneel Kumar, Nucl. Phys. A **876**, 109(2012).

32. Effect of scaled Gaussian width (SGW) on fragment flow and multifragmentation in heavy ion collisions.
Rajni and Suneel Kumar, Euro. Phys. J. A **48**, 19 (2012).

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