

Publications using the HPCC Facility from the Department

S.No.	Title	Group
1	Structural and electronic properties of sulphur-doped boron nitride nanotubes, Sheetal Sharma, Pooja Rani, AS Verma, VK Jindal, Volume 152, Issue 9, May 2012, Pages 802–805 + 2 Papers submitted are under revision (same authors)	Condensed Matter
2	Density and temperature of neutron-rich systems at the energy of vanishing flow in heavy-ion collisions Phys. Rev. C 83, 064604 (2011).	Nuclear Theory
3	Role of the structural effects on the collective flow and energy of vanishing flow, Rajni Bansal, Sakshi Gautam, Rajeev K. Puri, J. Aichelin, Phys. Rev. Lett	Nuclear Theory
4	Development and Implementation of Parallel Hough Transformation, Jyoti Bala, Vipin Bhatnagar, CHASCON 2012, (Feb, 2012)	Expt. HEP
5	Static Structure Factor of Amorphous Rutile Nanoparticle: A Molecular Dynamics Study, (AIP Conf. Proc. 1342, 259-260 (2011))	Condensed Matter
6	Structural Transitions in Rutile at High Pressures: A Molecular Dynamics Study" J. of Physics Conf. series (IOP) (to be published)	Condensed Matter
7	Sensitivity of transverse flow toward isospin-dependent cross sections and symmetry Energy, Sakshi Gautam, Raj Kumari and Rajeev K. Puri Physical Review C Vol. 86, 034607 (2012)	Nuclear Theory
8	Role of structural effects in collective transverse flow and energy of vanishing flow, Rajni, Sakshi Gautam and Rajeev K. Puri, Physical Review Letters (submitted)	Nuclear Theory
9	Isospin effects via symmetry energy in flow Sakshi Gautam, AIP Proceedings of International Conference on Recent Trends in Nuclear Physics held at Chitkara University Nov. 19-21, 2012 (in press).	Nuclear Theory
10	Structural effects on nuclear dynamics at intermediate energies, Rajni Bansal, AIP Proceedings (Communicated)	Nuclear Theory
11	Encapsulation of small Ruthenium clusters in C60 fullerene, Sunita Srivastava and Akshu Pahuja has been communicated to Physica B	Condensed Matter
12	pT spectra- an observable to determine the strength of in-medium nucleon-nucleon cross	Nuclear Theory

	section, Ritu Pal and Amandeep Sood Journal- Physics Letter B (submitted)	
13	Formation of Defects by Stretching Gold Nanosheet—A Simulation Study communicated paper in “Journal of Nano Research” through conference held at pune “NANOCON 012”. Sumali Bansal ¹ and Keya Dharamvir* ¹¹ Department of Physics, Panjab University, Chandigarh, India	Condensed Matter
14	Comparison of Cluster Calculation with Different Software – The Case of Small Clusters, Neetu Goel, Seema Gautam, Keya Dharamvir AIP Conf. Proc. -- December 12, 2011 -- Volume 1393, pp. 289-290 INTERNATIONAL CONFERENCE ON ADVANCES IN CONDENSED AND NANO MATERIALS (ICACNM-2011).	-do-
15	Structure and stability of GeAu _n , n=1-10 clusters: A Density Functional study, Priyanka, Hitesh Sharma and Keya Dharamvir, AIP Conf. Proc. -- December 12, 2011 Volume 1393, pp. 189-190 (2011). INTERNATIONAL CONFERENCE ON ADVANCES IN CONDENSED AND NANO MATERIALS (ICACNM-2011).	-do-
16	Computational Studies of Polyvinyl Alcohol Encapsulated Tetrahedral Cadmium Sulphide Cluster, Vaneeta Bala, Surya Kant Tripathi and Ranjan Kumar AIP Conf. Proc. (Recent Trends in Applied Physics & Material Science) RAM 2013	-do-
17	Structure and Stability of Pure and Doped Lithium Clusters (Lin and LinX, n = 2–8, X = B Al): A DFT study, Pooja Rani, Sheetal Sharma, and V. K. Jindal, AIP Conf. Proc. 1393, 191 (2011); doi: 10.1063/1.3653674	-do-
18	Toluene Adsorption on Na-Graphene Interface- A DFT Study, Pooja Rani and V. K. Jindal, AIP Conf. Proc., (Recent Trends in Applied Physics & Material Science) RAM 2011.	-do-
19	Structure and electronic properties of HfO ₂ , K.Seema and Ranjan Kumar, AIP Conf. Proc. DAE 2012.	-do-
20	Ab-initio study of full Heusler alloys Fe ₂ CoGa, K.Seema and Ranjan Kumar, RAM 2013.	-do-
21	DFT study of Si and Ge encapsulated C ₆₀ molecule, Nibras Mossa and Ranjan Kumar (J. of alloys and	-do-

	Compounds	
22	Stretching of Gold Nano-wire – Some Model calculations, Sumali bansal, Priyanka, Veena Verma and Keya Dharamvir AIP Conf. Proc. DAE 2012.	-do-
23	Energetics of Gold atom Adsorbed on Graphene, Gagandeep Kaur, Shuchi Gupta, and Keya Dharamvir	-do-
24	Mechanical Properties of Short Monatomic Gold Nanochains, Sumali bansal, Rajiv Bhandari and Keya Dharamvir, ICANN (Int. Conf. on Adv. In Nanomaterials and Nanosystems), IIT, Guwahati, Dec. 2011, Springer Proceedings (Communicated)	-do-
25	Supersymmetric Seesaw Inflation Charanjit Singh Aulakh and Ila Garg DOI: 10.1103/PhysRevD.86.065001 arXiv:1201.0519 [hep-ph] ,Jan 2012	HEP Theory
26	NMSGUT-III: Grand Unification upended Charanjit Singh Aulakh,Charanjit kaur, Ila Garg arXiv: 1107.2963v1[hep-ph], July 2011 arXiv: 1107.2963v2[hep-ph] to appear	-do-
27	Isospin effects on the energy of peak mass production, Sukhjit Kaur and Rajeev K. Puri, Physical Review C Vol. 87, 014620 (2013)	Nuclear Theory