




Faculty Details proforma for DU Web-site

Title	Dr.	First Name	Sanjay Kumar	Last Name	Chamoli	Photograph
Designation	Assistant professor					
Address (Office)	M. Tech Nuclear Science Block, Department of Physics & Astrophysics University of Delhi (North Campus), Delhi - 110007					
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Address (Residence)	21/6 Cavalary Lines, University of Delhi , Delhi – 110007					
Phone No	+91 - 9999062324					
Email	skchamoli@physics.du.ac.in , cylab123@gmail.com					
Educational Qualifications						
Degree	Institution				Year	
Ph.D.	Panjab University, Chandigarh / Inter University Accelerator Center, New Delhi <u>Thesis Topic</u> : The lifetime measurement of the excited nuclear states at high angular momentum in the mass region A = 170 - 190				2004	
M. Sc. (Physics)	H N B Garhwal University, Srinagar Garhwal, Uttarakhand				1992	
B. Sc.	H N B Garhwal University, Srinagar Garhwal, Uttarakhand				1988	
Any other qualification (B.Ed.)	H N B Garhwal University, Srinagar Garhwal, Uttarakhand				1993	
Career Profile						
<ol style="list-style-type: none"> 1. From May 2010 as Assistant Professor at Department of Physics & Astrophysics, University of Delhi (North Campus), Delhi, India 2. From July 2009 to May 2010 as Assistant Professor at Birla Institute of Technology and Science, Pilani, Rajasthan, India 3. From October 2008 to July 2009, worked as Post-Doctoral Fellow in the Department of Nuclear Physics, Australian National University (ANU), Canberra, Australia 						

<p>4. From February 2001 to October 2008 as Lecturer in Maharaj Singh (P.G.) College, Saharanpur, India</p> <p>5. From November 1998 to March 1999 as Lecturer in D. A. V. College , Sector -10, Chandigarh, India</p>						
<p>Administrative Assignments</p> <p>I am member of various committees of the department.</p>						
<p>Areas of Interest / Specialization</p> <p>Nuclear Physics (Experimental) ;</p> <ul style="list-style-type: none"> - Gamma ray spectroscopy - Lifetimes measurements (RDM & DSAM) - Nuclear g-factor measurement of excited nuclear states using the TDPAD technique, Transient Field technique and IPAC technique 						
<p>Subjects Taught</p> <p><u>Current Academic Assignments@ Delhi University, Delhi</u></p> <table border="0"> <tr> <td>1. Nuclear Physics (special paper)</td> <td>M. Sc 2nd Year</td> </tr> <tr> <td>2. Nuclear Physics (special paper) Lab-I</td> <td>M. Sc. 2nd Year</td> </tr> <tr> <td>3. Nuclear Physics (special paper) Lab-II</td> <td>M. Sc. 2nd Year</td> </tr> </table>	1. Nuclear Physics (special paper)	M. Sc 2 nd Year	2. Nuclear Physics (special paper) Lab-I	M. Sc. 2 nd Year	3. Nuclear Physics (special paper) Lab-II	M. Sc. 2 nd Year
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2. Nuclear Physics (special paper) Lab-I	M. Sc. 2 nd Year					
3. Nuclear Physics (special paper) Lab-II	M. Sc. 2 nd Year					
<p>Research Guidance</p> <p>Three students working for their Ph.D., One student awarded Ph.D. degree.</p>						
<p>Publications</p> <p>Books :</p> <p>Title : Nuclear Structure Study at High Spins Publisher : LAP Lambert Academic Publishing, Germany Year of Publication : 2012</p> <p>Research Papers :</p> <p>(A) In Indexed / Peer Reviewed Journals (Last Five Years)</p> <ol style="list-style-type: none"> 1. C.K. Gupta, S.K. Chamoli, et al., Novel technique of making thin target foil of high density material via rolling method. AIP Conference Proceedings 1962, 030013 (2018). 2. K.Kapur, S.K. Chamoli, et al., Fission time scale from pre-scission neutron and α multiplicities in the $^{16}\text{O} + ^{194}\text{Pt}$ reaction. Physical Review C 96, 054605 (2017). 3. K.Kapur, S.K. Chamoli, et al., Study of nuclear fission –fusion dynamics in $^{16}\text{O} + ^{194}\text{Pt}$ reaction. AIP Conference Proceedings 1852, 080005 (2017). 4. S.K. Chamoli, et al., Investigating prolate-oblate shape inversion in Pt nuclei near $A \sim 188$. Acta Physica Polonica B, vol. 48, number 3, 337 (2017). 5. Aman Rohilla, S.K. Chamoli, et al., Lifetime measurements in shape transition nucleus ^{188}Pt. Euro Physics Journal A 53, 64 (2017). 						

6. A. E. Stuchbery, **S.K. Chamoli** and T. Kibedi, "Particle-rotor versus particle-vibration features in g factors of ^{111}Cd and ^{113}Cd ". *Physical Review C* 93, 031302 (R) (2016).
7. R.P. Singh, **S.K. Chamoli**, et. al., "Lifetime measurements in the yrast band of gamma-soft nuclei ^{131}Ce and ^{133}Pr ". *PARMANA Journal of Physics* 87 (1), 1-11 (2016).
8. Aman Rohilla, **S.K. Chamoli**, et al., "Fabrication of enriched $^{174}\text{Yb}_2\text{O}_3$ thin targets on Carbon and Tantalum backings". *Nuclear Instruments and Methods in Physics Research A* 797 (2015) 230-233.
9. C.K. Gupta, **S.K. Chamoli**, et al., "Fabrication of ^{94}Zr thin target for Recoil Distance Doppler Shift Method of lifetime measurement". *Nuclear Instruments and Methods in Physics Research A* 764 (2014) 273.

(B) In Conferences (in last five years)

1. **S.K.Chamoli**, et al., "Road to nuclear security education at the University of Delhi", in the International Nuclear Security Education Network (INSEN) Annual Meeting 2018, at the International Atomic Energy Agency (IAEA) Headquarters in Vienna, Austria, 9th July 2018.
2. **S.K.Chamoli**, et al., "Lifetime measurement study of octupole deformation in neutron deficient nuclei in Xe-Cs-Ba region" in the Accelerator User Workshop (AUC-63) at the Inter University Accelerator Center (IUAC), Delhi, India, 18th Dec. 2017.
3. **S.K.Chamoli**, et al., "Lifetime measurements of high spin states in ^{111}In with INGA @ IUAC", in the Workshop on Indian National Gamma Array (ingaws17) at the Inter University Accelerator Center, Delhi, India, 14 -15 Sept., 2017.
4. **S.K.Chamoli**, et al., "*Shape transition in Pt nuclei*", at the International Conference of Nuclear Physics 2017, Chandigarh, India, 14- 18 March 2017.
5. **S.K.Chamoli**, et al., "*Novel technique of making thin target foil of high density material via rolling method*", at INTDS 2016 Conference, Cape Town, South Africa, 13-17 Nov. 2016.
6. **S.K.Chamoli**, et al., "*Shape transition in $A \sim 190$ nuclei; a study via lifetime measurement in ^{188}Pt* ", at the Zakopane Conference on Nuclear Physics 2016, Zakopane, Poland, 28 Aug. - 4 Sept. 2016.
7. **S.K.Chamoli**, et al., "*Shape transition in $A \sim 190$ nuclei; a study via lifetime measurement in ^{188}Pt* ", at the XI Latin American Symposium of Nuclear Physics and Applications (LASNPA), Medellin, Colombia, 30 Nov.-4 Dec. 2015.
8. Aman Rohilla, **S.K.Chamoli**, et al., "*Lifetime measurement in ^{167}Lu* ", at the DAE Symposium on Nuclear Physics 2015, at the Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam (A.P.), India, 7-11 Dec. 2015. (DAE Proceeding Vol. 60, A126 (2015)).
9. C.K. Gupta, **S.K.Chamoli**, et al., "*Lifetime measurement in ^{103}Pd* ", at the DAE Symposium on Nuclear Physics 2015, at the Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam (A.P.), India, 7-11 Dec. 2015. (DAE Proceeding Vol. 60, A135 (2015)).

10. Aman Rohilla, S.K.Chamoli, et al., "*Lifetime measurement in ^{188}Pt* ", at the DAE Symposium on Nuclear Physics 2014, at the Banaras Hindu University, Varanasi, India, 7-12 Dec. 2014. (DAE Proceeding Vol. 59, A114 (2014)).
11. Aman Rohilla, S.K.Chamoli, et al., "*RDM Lifetime measurements in ^{167}Lu* ", at the DAE Symposium on Nuclear Physics 2014, at the Banaras Hindu University, Varanasi, India, 7-12 Dec. 2014. (DAE Proceeding Vol. 59, A116 (2014)).
12. Shivcharan Verma, S.K.Chamoli, et al., "*Polarization measurements and evidence for octupole correlations in ^{122}Ba* ", at DAE Symposium on Nuclear Physics 2014, Banaras Hindu University, Varanasi, 7-12 Dec. 2014. (DAE Proceeding Vol. 59, A128 (2014)).
13. R.K. Gurjar, S.K.Chamoli, et al., "*HPGe and clover gamma ray detector maintenance*", at the DAE Symposium on Nuclear Physics 2014, Banaras Hindu University, Varanasi, India, 7-12 Dec. 2014. (DAE Proceeding Vol. 59, G67 (2014)).
14. C.K. Gupta, S.K.Chamoli, et al., "*Simultaneous making of two thin ^{174}Yb targets on two different backings*", at the DAE Symposium on Nuclear Physics 2014, Banaras Hindu University, Varanasi, India, 7-12 Dec. 2014. (DAE Proceeding Vol. 59, G71 (2014)).
15. C.K. Gupta, S.K.Chamoli, et al., "*Preparation of thin Gold foil via rolling method*", at DAE Symposium on Nuclear Physics 2014, Banaras Hindu University, Varanasi, India, 7-12 Dec. 2014. (DAE Proceeding Vol. 59, G72 (2014)).
16. Aman Rohilla, S.K.Chamoli, et al., "*RDM plunger setup with clover detectors*", at DAE International Symposium on Nuclear Physics 2013, Bhabha Atomic Research Center, Mumbai, India, 2-6 Dec. 2013. (DAE Proceeding Vol. 58, G52 (2013)).
17. C.K. Gupta, S.K.Chamoli, et al., "*Fabrication of ^{94}Zr thin target for RDM lifetime Experiment*", at DAE Symposium on Nuclear Physics 2013, Bhabha Atomic Research Center, Mumbai, India, 2-6 Dec. 2013. (DAE Proceeding Vol. 58, G43 (2013)).
18. Navneet Sahota, S.K.Chamoli, et al., "*High spin structure in ^{140}Sm* ", at DAE Symposium on Nuclear Physics 2013, Bhabha Atomic Research Center, Mumbai, India, 2-6 Dec. 2013. (DAE Proceeding Vol. 58, A70 (2013)).

(C) Invited Talks (last three years)

1. Delivered a lecture on "Nuclear structure studies in mass region $A = 160-190$ with lifetime measurement" at the Department of Physics, University of Cologne, Germany, 16th July 2018.
2. Delivered a lecture on '*Facilities for Nuclear Physics Research in India; A status update*' at the Institute of Modern Physics, Lanzhou, China, 19 June 2017.
3. Delivered two lectures on '*Nuclear Structure Studies with g -factor measurements*' at the School on Experimental Techniques at the Inter University Accelerator Center, Delhi, 28 April 2016.

<p>4. Delivered a lecture on <i>“Shape evolution and shape transition in Pt nuclei with mass A ~ 190”</i> in Workshop on Recent Trends in Nuclear Physics (RTNP) at the Inter University Accelerator Center (IUAC), Delhi, India, Sept. 14-15, 2015.</p> <p>5. Delivered a lecture on <i>“Complex structure in simple nuclei; an insight into collectivity in mass A ~ 100 region”</i> in Frontier in Gamm Ray Spectroscopy, (FIG15) Conference at Variable Energy Cyclotron Center (VECC), Kolkata on 19th Feb. 2015.</p> <p>6. Delivered a lecture on <i>“study of lifetime and g factor of pico-sec lifetime states with ancillary equipment”</i> in Workshop on Ancillary equipment for Nuclear @IUAC at the Inter University Accelerator Center (IUAC) on 4th July 2013.</p> <p>7. Delivered a lecture on <i>“Environmental issues and the importance of radiation effects”</i> in the ‘Refresher Course in Environmental Studies’ at the Department of Environmental Studies, University of Delhi, Delhi, India on 28 Jan. 2013.</p>
<p>Research Projects (Major Grants/Research Collaboration)</p>
<p>On-going Projects :</p> <p>1. Project “Lifetime measurement study of octupole deformation in neutron deficient nuclei in Xe-Cs-Ba region”</p> <p>Funding Agency : Inter University Accelerator Center (IUAC), Delhi</p> <p>Duration : 3 years (1st April 2018 – 31st March 2021) Total Cost : 6.7 Lakh</p>
<p>Awards and Distinctions</p>
<p>1. Junior Research Fellowship of University Grants Commission, on clearing NET exam conducted by CSIR/UGC, India 1998.</p> <p>2. Feinberg Graduate School Postdoctoral Fellowship, Israel 2004.</p> <p>3. Postdoctoral Fellowship from Australian Research Council, Australia 2008.</p> <p>4. Visiting Fellow, Australian National University, Australia, July - December 2009.</p> <p>5. Nominated for Germany for 3 Months by the Indian National Science Academy (INSA) under Bilateral Exchange Program 2011.</p> <p>6. Nominated for China for 4 Weeks by the Indian National Science Academy (INSA) under Bilateral Exchange Program 2017.</p>
<p>Association With Professional Bodies</p>
<p>Member of International Nuclear Security Education Network (INSEN) of the International Atomic Energy Agency (IAEA).</p>
<p>Other Activities</p>
<p>None</p>