Curriculum Vitae

Full Name	Dr. Vivek Sharma		
Designation	Assistant Professor		
Department	Physics		
Campus	Birla Chauras Campus		
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Education Qualification	Ph.D. (2018), Banaras Hindu University		
Teaching Experience	1.5 Years	**Research Experience**	12 Years

Areas of Interest/ Specialization
1. Neutrino Physics
2. Dark Matter Searches
3. Ionization Detectors

Honours & Awards
1. Institute of Physics, Academia Sinica Fellowship.
2. Ministry of Science and Technology (Taiwan) Fellowship.
3. Taiwan Physical Society Oral Presentation Award (TPS Meeting).

Member of Academic Institutions
1. Institute of Physics, Academia Sinica, Taiwan

Membership of Scientific Organization
1. TEXONO Collaboration

Research Supervision (No. of Ph.D. Degree Awarded/ Registered)
None

Research Projects/ MoU undertaken
None

Administrative Experience
None

Scientific Visits Abroad/International Collaboration

1. The second Institute of Advance Studies School on Particle Physics, Cosmology and Implications for technology, Nanyang Technological University, Singapore (2015).
2. International Conference on Massive Neutrinos, Nanyang Technological University, Singapore (2015).
3. Annual Meeting of the Physical Society of the Republic of China, Kaohsiung, Taiwan (2016).
4. NCTS school on Atomic Theory for Low Energy Detector Responces, NDHU, Hualien, Taiwan (2016).
5. 1st KEK-KIAS-NCTS Joint Workshop on Particle Physics Phenomenology, NTHU, Hsinchu, Taiwan (2016).
6. Summer Institute on Phenomenology of Elementary Particle Physics and Cosmology, Xi Tou, Taiwan (2016).
7. Asia Europe Pacific School for High Energy Physics, Beijing, China (2016).
8. 4th International Workshop on Dark Matter, Dark Energy and Matter-AntiMatter Asymmetry, NTHU, Hsinchu, Taiwan (2016).
9. 13th Rencontres Du Vietnam, Neutrinos, Quy Nhon, Vietnam (2017).
10. 13th Rencontres Du Vietnam, Exploring the Dark Universe, Quy Nhon, Vietnam (2017).
11. NCTS Workshop on Dark Matter, Particles and Cosmos, NDHU, Hualien, Taiwan (2017).
12. PIRE-GEMADARC collaboration meeting, Xichang, China (2018).
13. PIRE-GEMADARC Summer School, Sichuan University, Chengdu, China (2018).
14. 5th International Workshop on Dark Matter, Dark Energy and Matter-AntiMatter Asymmetry, NTHU, Hsinchu and Fo-Guang Shan, Kaoh-Siung, Taiwan (2019).
15. Annual Meeting of the Physical Society of the Republic of China, Hsinchu, Taiwan (2019).
16. 16th International Conference on Topics in Astroparticle and Underground Physics, Toyama, Japan, (2019).
17. Annual Meeting of the Physical Society of the Republic of China, Pingtung, Taiwan (2020).
18. PIRE-GEMADARC collaboration meeting, Taipei, Taiwan (2023).
19. PIRE-GEMADARC Summer School, Academia Sinica, Taipei, Taiwan (2023).

Conference/Symposium/Workshop Attended during last five years (2018-2023).

International

1. Presented Paper, 41th International Conference on High Energy Physics, (Online), Italy (2022).
2. Presented Paper, The Magnificent CEvNS Workshop, (Online), U.S.A. (2021).
3. Presented Paper, 17th International Conference on Topics in Astroparticle and Underground Physics, (Online), Spain (2021).
4. Presented Paper, 28th International Workshop on Weak Interactions and Neutrinos, (Online), U.S.A. (2021).
5. Presented Paper, The Magnificent CEvNS Workshop, (Online) (2020).
6. Presented Paper, 40th International Conference on High Energy Physics, (Online), Prague (2020).
7. Presented Paper, Annual Meeting of the Physical Society of the Republic of China, Pingtung, Taiwan (2020).
8. Presented Paper, 16th International Conference on Topics in Astroparticle and Underground Physics, Toyama, Japan, (2019).
9. Presented Paper, Annual Meeting of the Physical Society of the Republic of China, Hsinchu, Taiwan (2019).
10. Presented Paper, 5th International Workshop on Dark Matter, Dark Energy and Matter-AntiMatter Asym- metry, NTHU, Hsinchu and Fo-Guang Shan, Kaoh-Siung, Taiwan (2019).
11. Attended, PIRE-GEMADARC Summer School, Sichuan University, Chengdu, China (2018).
12. Attended, The 2nd PIRE-GEMADARC collaboration meeting, Xichang, China (2018).
13. Attended, NCTS Workshop on Dark Matter, Particles and Cosmos, NDHU, Hualien, Taiwan (2017).
14. Attended, 13th Rencontres Du Vietnam, Exploring the Dark Universe, Quy Nhon, Vietnam (2017).
15. Attended, 13th Rencontres Du Vietnam, Neutrinos, Quy Nhon, Vietnam (2017).
16. Paper Presented, International Workshop on Applied Antineutrino Physics, Mumbai, (2017).

National

1. Invited Talk, NCRATES-2023, Jaiharikhal (2023)
2. Poster Presented, 66th DAE-BRNS Symposium on Nuclear Physics, India (2022).
2. Paper Presented, 65th DAE-BRNS Symposium on Nuclear Physics, (Online), India (2021)
3. Poster Presented, 24th DAE-BRNS Symposium on High Energy Physics, (Online), India (2020).
4. Invited Talk, 62nd DAE-BRNS Symposium on Nuclear Physics, Thapar University, Patiala, India (2017).

Conference/Symposium/Workshop Organized during last five years (2018-2023)

1. Organizing Member, Workshop on Getting Involved with Physics, HNB Garhwal University, Dec 9, 2022.
2. Co-organizing Secretary, Monthly General Physics Lecture Series, Online, Nov 29, 2022 to April 25, 2023.
3. Organising Secretary, Skywatch Program, HNB Garhwal University, Dec 19-Dec 21, 2022.
4. Coordinator, Science Week 2023, HNB Garhwal University, Feb 28-March 4, 2023.
5. Member, Workshop on Securing Research Funding, HNB Garhwal University, Dec 11-Dec 12, 2023.

Research Publications 2017 onwards

Journals

1. Design and Performance of a Hybrid Fast and Thermal Neutron Detector, Singh M. K. et al., Nucl. Inst. and Meth. in Phys. Res. A 868 , 109-118 (2017).
2. The first result on ^{76}Ge neutrinoless double beta decay from CDEX-1 experiment, Wang. Li, et al., Science China (Phys., Mech. & Astro.) 60, 7 (2017).
3. Constraints on axion couplings from the CDEX-1 experiment at the China Jinping Underground Laboratory, S. K. Liu, et al., Phys. Rev. D 95, 052006 (2017).
4. Background rejection of TEXONO experiment to explore the sub-keV energy region with HPGe detector, M. K. Singh, et al., Indian J. of Phys. 91, 12771291 (2017).
5. Bulk and surface event identification in p-type germanium detectors, L. T. Yang, et al., Nucl. Inst. and Meth. in Phys. Res. A 886, 13-23 (2018).
6. Characterization of the sub-keV Germanium detector, M. K. Singh, et al., Indian J. of Phys. 92, 401-408, (2018).
7. Limits on Light Weakly Interacting Massive Particles from the First 102.8 kg×day Data of the CDEX-10 Experiment, H. Jiang et al., Phys. Rev. Lett. 120, 241301 (2018).
8. Limits on light WIMPs with a 1 kg-scale germanium detector at 160 eVee physics threshold at the China Jinping Underground Laboratory, Li-Tao Yang, et al., Chinese Phys. C 42, 023002 (2018).
9. Status of the search of coherent neutrino nucleus elastic scattering at KSNL, V. Sharma et al., Indian J. of Phys. 92, 1145 (2018).
10. Neutron background measurements with a hybrid neutron detector at the Kuo-Sheng Reactor Neutrino Laboratory, A. Sonay, et al., Phys. Rev. C 98, 024602 (2018).
11. Performances of a prototype point-contact germanium detector immersed in liquid nitrogen for light dark matter search, H. Jiang, et al., Science China (Phys., Mech. & Astro.) 62, 031012-1 (2018).
12. Constraints on millicharged particles with low-threshold germanium detectors at Kuo-Sheng Reactor Neutrino Laboratory, L. Singh, et al., Phys. Rev. D 99, 032009 (2019).
13. Constraints on Bosonic Dark Matter with Low Threshold Germanium Detector at Kuo-Sheng Reactor Neutrino Laboratory, M. K. Singh, V. Sharma* et al., Chinese J. of Phys. 58, 63 (2019).
14. Constraints on Spin-Independent Nucleus Scattering with sub-GeV Weakly Interacting Massive Particle Dark Matter from the CDEX-1B Experiment at the China Jinping Underground Laboratory, Z.Z. Liu, et al., Phys. Rev. Lett. 123, 161301 (2019).
15. Search of Light-Weakly-Interacting-Massive-Particle Dark Matter by annual modulation analysis with a point-contact germanium detector at the China Jinping Underground Laboratory, L. T. Yang, et al., Phys. Rev. Lett. 123, 221301 (2019).
16. Required sensitivity in the search of neutrinoless double beta decay in ^{124}Sn, M. K. Singh, et al., Indian J. of Phys. 18, (2019).
17. Exposure-background duality in the searches of neutrinoless double beta decay, M. K. Singh, et al., Phys. Rev. D 101, 013006 (2020).
18. Improved limits on solar axions and bosonic dark matter from the CDEX-1B experiment using the profile likelihood ratio method, Y. Wang, et al., Phys. Rev. D 101, 052003 (2020).
19. Direct Detection Constraints on Dark Photons with the CDEX-10 Experimen- tat the China Jinping Underground Laboratory, Z. She, et al., Phys. Rev. Lett. 124, 111301 (2020).
20. First experimental constraints on WIMP couplings in the effective field theory framework from CDEX, Y. Wang, et al., Science China (Phys., Mech. & Astro.) 64, 8 281001 (2021).

21. Studies of Quantum-Mechanical Coherency Effects in Neutrino-Nucleus Elastic Scattering, V. Sharma et al., Phys. Rev. D 103, 092002 (2021).
22. Studies of the Earth shielding effect to direct dark matter searches at the China Jinping Underground Laboratory, Z.Z. Liu et al., Phys. Rev. D 105, 052005 (2022).
23. Constraints on sub-GeV Dark Matter Boosted by Cosmic Rays from CDEX-10 Experiment at the China Jinping Underground Laboratory, R. Xu et al., Phys. Rev. D 106, 052008 (2022).
24. Search for neutrinoless double-beta decay of Ge76 with a natural broad energy germanium detector, W. H. Dai *et al.,* Phys. Rev. D 106, 032012 (2022).
25. Constraints on Sub-GeV Dark Matter–Electron Scattering from the CDEX-10 Experiment,Z. Y. Zhang *et al.,* Phys. Rev. Lett. 129, 221301 (2022).
26. Projections of discovery potentials from expected background, M. K. Singh, H. B. Li, H. T. Wong, V. Sharma, and L. Singh, Phys. Rev. D 109, 032001 (2024).
27. Heavy Hexaquarks in the Flux Tube Model, Sindhu D G, Akhilesh Ranjan, Hemwati Nandan, V. Sharma, Mod. Phys. Lett. A, 2450008 (2024).

Proceedings

1. Coherent Elastic Neutrino-Nucleus Scattering, V. Sharma et al., 62th DAE Symp. Nucl. Phys., 19 (2017).
2. Coherency in Neutrino-Nucleus Elastic Scattering, V. Sharma et al., TAUP-2019 (Japan), J. Phys.: Conf. Ser. 1468, 012149 (2020).
3. Studies of Quantum Mechanical Coherency Effects in Neutrino-Nucleus Elastic Scattering, V. Sharma et al., ICHEP-2020, Proceedings of Science 390, (2021).
4. Probing the Neutrino-Nucleus Elastic Scattering with Point Contact Germanium detectors and its Quantum-Mechanical Coherency Effects, V. Sharma et al., TAUP-2021, J. Phys.: Conf. Ser. 2156, 012206 (2021).
5. Probing the Neutrino Nucleus Elastic Scattering at Reactors and its Quantum Mechanical Coherency Effects, V. Sharma et al., 65th DAE Symp. Nucl. Phys., 749 (2021).
6. Studies of Coherency Effects in Neutrino-Nucleus Elastic Scattering at Reactors, V. Sharma et al., ICHEP-2022, Proceedings of Science 619, (2022).
7. Coherency Effects in Elastic Neutrino Nucleus Scattering, V. Sharma et al., 66th DAE Symp. Nucl. Phys., 1059 (2022).

Books

1. None

Total Number of Research Publications: 30

Total Citation: 1117
h-index: 17
i10 index: 23
(Source: Google Scholar)