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List of Publications:

1. **Sarita**, Rajan Jha and Rakesh Kumar Singh, Tightly focused linearly and radially polarized beam effect on the LSPR peak with varying particle size, *Physica Scripta* **98**, 115523 (2023).
2. **Sarita**, Rajan Jha and Rakesh Kumar Singh, Mie scattering of tightly focused beams by a core-shell nanoparticle, *Optics Communications*, Volume **557**, 130306, (2024).
3. **Sarita**, Rajan Jha and Rakesh Kumar Singh, Enhancing plasmonic response by scattering of a beam under spherical aberration, *Optics & Laser Technology*, Volume **179**, 111397, (2024).
4. **Sarita,** Rajan Jha and Rakesh Kumar Singh, Spherically aberrated tightly focused radially polarized beam enhancing plasmonic response of nanoparticle, (Under preparation).

Conferences/ Symposium/Summer Schools/Science programs

1. Attended Imaging and Applied Optics Congress & Optical Sensors and Sensing Congress, OSA, 22-26 June, (2020). (Online)
2. Attended *Summer School on Optics and Photonics: Fundamentals and Applications*, Optics and Photonics Centre, IIT-Delhi, 6- 24 June, (2022). (Online)
3. **Sarita**, and Rakesh Kumar Singh, Designed Mie scattering expansion coefficients by nanoparticles in a tight focused conditions, *Conference on Optics, Photonics & Quantum Optics*, Pg. No. 273-274, IIT-Roorkee, India, 10-13 November, (2022).
4. **Sarita**, Rajan Jha, and Rakesh Kumar Singh, Near-field intensity enhancement under aberrated focusing, *The 84th JSAP Autumn Meeting 2023*, Kumamoto Jo-Hall, Kumamoto, Japan, 19-23 September, (2023).
5. **Sarita**, Rajan Jha, Rakesh Kumar Singh, Tuning the plasmonic response by an aberrated system, *International conference on Advanced Materials for Better Tomorrow-II*, Pg. No. 129, Banaras Hindu University, India, 10-13 October, (2023).

6. Attended *SAKURA Science Student Exchange Program*, Niigata University, Japan from 6th November – 26th November 2023, fully funded by Japan Science and Technology (JST).
7. **Sarita**, Ankita Chowdhury, Rajan Jha, Rakesh Kumar Singh, Convergence angle affecting tightly focused aberrated beam, *International Conference on Optics, Photonics & Quantum Information*, Pg. No. 147, CUSAT, Cochin, Kerala, India, 11-13 December, (2023).
8. **Sarita**, Rajan Jha, Rakesh Kumar Singh, *Effect of defocusing on plasmonic response of nanoparticle*, The 71st JSAP Spring Meeting 2024, Setagaya Campus, Tokyo City University, Japan, 22-25 March 2024.
9. **Sarita,** Rajan Jha and Rakesh Kumar Singh, Effects of defocusing on near-field intensity enhancement, *SPIE Optics + Photonics 2024*, San Diego Convention center, San Diego, California, USA, 18-22 August 2024.
10. Codes are available on: https://github.com/orgs/OpticsInformationLab/repositories