

Curriculum Vitae

GAURI ARORA

Senior Research Fellow

Department of Physics,

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Date and Place of Birth: 18 Feb 1993, New Delhi, India.

Area of Interest:

- Singular optics
- Structured light
- Optical Imaging
- Microscopy

Education:

Ph.D (Physics), Indian Institute of Technology, Delhi (Present).

M.Tech Applied Optics, Indian Institute of Technology, Delhi 2016-2017 (CGPA: 9.8)

M.Sc (Physics), Hindu College, Delhi University 2015 (First Class – 77 %).

B.Sc (Physics), Sri Venkateshwara College, Delhi University 2013 (First Class – 89%).

Awards and Honours

2020 Received Significant contribution Award at Department of Physics, Indian Institute of Technology Delhi.

2008 Received two Indira Awards (Silver Medals)

Grants and Fellowships

Senior Research Fellowship (July 2018-Present)

Junior Research Fellowship (July 2016-July 2018)

Qualified Graduate Aptitude test in Engineering (GATE) 2016 AIR-109

Qualified Junior Research Fellowship (JRF) in the Joint CSIR-UGC Test 2016, AIR-33

Received CBSE Merit Fellowship (CSSS: 2011-2015)

Journal Publications

1. Gauri Arora, Ruchi, Sushanta Kumar Pal and P. Senthilkumaran, “Full Poincare beam delineation based on Stokes vortex ring” Journal of Optics, (2021)
2. Gauri Arora, S. Deepa, Saba N. Khan, and P. Senthilkumaran, “Detection of degenerate Stokes index states” Scientific reports, 10, (2020)
3. Gauri Arora, Ruchi and P. Senthilkumaran, “Hybrid order Poincare spheres for Stokes singularities” Opt. Letters, 45, (2020)
4. Saba N. Khan, S. Deepa, Gauri Arora, and P. Senthilkumaran, “Perturbation induced morphological transformations in vector-field singularities, JOSA B, 37 (2020)

5. Gauri Arora, Ruchi and P. Senthilkumaran, "Full Poincare beam with all Stokes vortices" Opt. Letters, 44, (2019)
6. Gauri Arora, Sushanta Kumar Pal and P. Senthilkumaran, "Spatially varying lattice of C points", OSA Continuum, 2, (2019)

Conference Proceedings

1. Gauri Arora, and P. Senthilkumaran, "Effect of perturbation on vector field singularities", in Conference on Lasers and Electro-Optics, OSA Technical Digest (Optical Society of America, 2020), paper JTU2B.2.
2. Gauri Arora and P. Senthilkumaran, "Detection of polarization singularities using analyzers", International conference on Optics and Electro-Optics (ICOL-2019) Springer (783-786)
3. G. Arora and P. Senthilkumaran, "Degeneracy of Dark C points," 2019 Workshop on Recent Advances in Photonics (WRAP), 2019, pp. 1-3, doi: 10.1109/WRAP47485.2019.9014017

Conferences and Workshops

International Conferences

1. Gauri Arora, and P. Senthilkumaran, "Effect of perturbation on vector field singularities", CLEO laser science to photonic applications 2020, USA (virtual).
2. Gauri Arora, and P. Senthilkumaran, "Perturbation of V points by circularly polarized light", International conference on Optical Angular Momentum, Ottawa Canada, June 2019.

National Conferences

1. Gauri Arora, and P. Senthilkumaran, "Degeneracy of dark C points" Workshop on Recent Advances in Photonics (WRAP), IIT Guwahati 2019.
2. Gauri Arora, and P. Senthilkumaran, "Detection of polarization singularities using analyzers", International conference on Optics and Electro-Optics (ICOL), IRDE Dehradun 2019
3. Gauri Arora, S. Deepa, Saba N. Khan and P. Senthilkumaran, "Diffraction of V points through sectorial aperture", Workshop on Optics and Photonics: Theory and Computational Techniques, IIT Delhi, March 2019
4. Gauri Arora, Sushanta kumar Pal and P. Senthilkumaran, "C point ring from orthogonally polarized vortex beams" OSI International Symposium on Optics, IIT Kanpur, September 2018
5. Attended International conference on Fiber Optics and Photonics at Indian Institute of Technology Delhi, December 12-15, 2018.

Teaching experience

- Teaching assistant for M.Sc. Physics Lab at Indian Institute of Technology Delhi (2018).
- Teaching assistant for B.Tech Physics Lab at Indian Institute of Technology Delhi (2019-2020).

Technical Skills

- C, C++ Languages
- MATLAB
- LATEX

Additional Activities

- Worked as a part of organizing committee in International OSA Network of Students (IONS-2020) at Indian Institute of Technology New Delhi.
- Reviewed research articles in International journals: Applied optics (OSA), Optics Letters (OSA), Physica Scripta (IOP Science), Optical engineering, Scientific Reports (Nature), Journal of Modern Optics.

Reference

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