CURRICULUM VITAE

: Indian

: Male

: Married

: 24 July 1975

DILIP KUMAR GIRI

ADDRESS FOR CORRESPONDENCE:

Dr. DILIP KUMAR GIRI

SARDA NIWAS Phase-I, Kusum Vihar, P.O.: BCCL Township, Dhanbad – 826 005, Jharkhand, India Contact No. 09470365859, 07004225579 E-mail: dilipkumargiri@gmail.com

PERSONAL PROFILE:

- Father's Name : Sri Dineshwar Giri
- Mother's Name •
- Nationality •
- Date of birth •
- Sex •
- **Marital Status** •

PRESENT STATUS:

Assistant Professor, University Department of Physics, Binod Bihari Mahto Koyalanchal University, Dhanbad Jharkhand-828103, India.

EDUCATIONAL QUALIFICATIONS:

Year of Passing	Degrees/Award
2007	Doctor of Philosophy (Ph.D.)
	(Applied Physics – Nonlinear and Quantum Optics),
	Indian School of Mines, Dhanbad, India.
	(Completed Successfully)
2002	Master of Philosophy (M.Phil.)
	(Applied Physics), (First Class with distinction)
	Indian School of Mines, Dhanbad, India.
2000	Master of Science (M.Sc.)
	(Physics) (First Class)
	Specialization: Electronics & Microwaves
	Vinoba Bhave University, Hazaribag, India.
1996	Bachelor of Science (B.Sc.)
	(Physics – Honours) (First Class)
	Vinoba Bhave University, Hazaribag, India.
1993	Intermediate Science (I.Sc.)
	Science, (First Division)
	Bihar Intermediate Education Council. Patna. India.
1991	Matriculation (10th)
	(First Division)
	Ribar School Examination Roard Datas India
	binar School Examination Board, Fatha, Inula.

PROFESSIONAL MEMBERSHIPS:

•	Life member (L251)	: Lasers & Spectroscopy Society of India, BHU, Varanasi
•	Life member (L16174)	: The Indian Science Congress Association, Kolkata
•	Life member (LM922)	: The Indian Laser Association, Indore
•	Life member (L5754)	: The Indian Association of Physics Teachers, Kanpur
•	Fellow Member (F1827)	: The Optical Society of India, University of Calcutta, Kolkata

: Smt. Sarda Devi

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It is certified that the facts stated above are true to the best of my knowledge and belief. - Dr D K Giri

ACHIEVEMENTS:

- I.S.M. Research Fellowship (JRF & SRF) from July 2002 to June 2005
- Reviewer of the Refereed Journals:
 - ✓ Physica A (Elsevier Journals) Netherlands;
 - ✓ Physica B (Elsevier Journals) Netherlands;
 - ✓ Optics Express, USA;
 - ✓ International J. of Computer & Engg. Research, USA;
 - ✓ Wesleyan J. of Research, W.B., India.
 - ✓ Quant. & Optical Electronics, Springer Verlag, Germany;
 - ✓ Modern Physics Letters B, Singapore;
 - \checkmark Journal of Physics Communications, IOP, UK

Reviewed Research Papers:

- ✓ Quasiprobability distribution in a Kerr-nonlinear blackbody Physica A
- ✓ Amplitude-squared squeezing of the photon field in a Kerr-nonlinear blackbody Physica B
- ✓ Squeezed light at 1550nm with a quantum noise reduction of 12.3dB Optics Express
- ✓ Balanced Homodyne Detection of Optical Quantum States at Audio-Band Frequencies and Below- Optics Express
- ✓ High Performance Efficiency of Distributed Optical Fiber Raman Amplifiers for Different Pumping Configurations in Different Fiber Cable Schemes – Int. J. Comp. Engg. Res. (IJCER).
- ✓ Higher-Order Antibunching for Pump Mode in Stimulated Raman Scattering Wesleyan Journal of Research (published by Bankura Christian College) West Bengal, India
- ✓ Higher- order amplitude squeezing in seven-wave mixing process Optical and Quantum Electronics, Springer Verlag, Germany
- ✓ Radiation Squeezing For M Two-Level Atoms Interacting With A Single Mode Coherent Radiation - Modern Physics Letters B, Singapore
- UGC sponsored **58th Orientation Course** participated from September 04, 2008 to October 01, 2008 at ASC University of Hyderabad(**Central University**) and obtained **Grade 'A'**.
- Selected for INSA-IAS-NASI "Summer Research Fellowship 2010" to work under the supervision of Prof. (Dr.) Subhash Chaturvedi at University of Hyderabad (Central University), Hyderabad.
- UGC sponsored **Refresher Course in "Experimental Physics"** participated from February 17, 2011 to March 09, 2011 at ASC Ranchi University, Ranchi and obtained **Grade 'A'**.
- Selected for INSA-IAS-NASI "Summer Research Fellowship 2011" to work under the supervision of Dr. Ravindra Pratap Singh, Scientist-F at Physical Research Laboratory, Navrangapura, Ahmedabad.
- DST, Govt. of India sponsored National training programme on **"Research Methodology & Data Analysis"** participated from January 21-25, 2013 at ISM, Dhanbad.
- UGC sponsored **Refresher Course in "Basic Science"** participated from March 04, 2013 to March 24, 2013 at ASC Ranchi University, Ranchi and obtained **Grade 'A'**.
- Shortlisted for UGC "Research Award" Programme 2012-14 & 2014-16.
- A MHRD, GOI funded Faculty Development Centre sanctioned under "Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) "Refresher Programme in Physics with special focus on Nano-Biotechnology" participated from May 25, 2017 to June 14, 2017 at IIT (ISM) Dhanbad and obtained Grade 'A'.
- UGC sponsored **Refresher Course in "Information Technology"** participated from January 04, 2019 to January 24, 2019 at HRDC Ranchi University, Ranchi and obtained **Grade 'A'**.
- UGC (Ministry of HRD, GOI), ERO Kolkata sponsored 'UGC Orientation Workshop on Awareness, Adoption & Promotion of the MOOCs on SWAYAM Platform' participated on September 03, 2019 organised by UGC, ERO at Ranchi University, Ranchi.
- A MHRD, GOI funded Faculty Development Centre sanctioned under "Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) "One Week Online Faculty Development Programme on **Developing Future Generation Teachers**" participated from April 18, 2020 to April 23, 2020 organized by SYDENHAM Faculty Development Centre, PMMMNMTT, Mumbai at Wilson College, Mumbai and obtained **Grade 'A'**.

CV: Dr Dilip Kumar Giri

- A MHRD, GOI funded Faculty Development Centre sanctioned under "Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) "One Week Online Faculty Development Programme on Transition Management for Higher Education during COVID-19 Pandemic-A Roadmap" participated from May 02, 2020 to May 06, 2020 organized by SYDENHAM Faculty Development Centre, PMMMNMTT, Mumbai at Chhatrapati Shahu Institute of Business Education & Research, Kolhapur and obtained Grade 'A'.
- Received a **Certificate of Participation** on **June 12, 2020** for attending Live International Webinar on **"Origin of Universe: Scientific and Vedic Perspectives"** organized by "QUBIT" the Physics Society, Bhaskaracharya College of Applied Sciences, University of Delhi.
- Participated in the guest session on "LIVING FORWARD" by motivational speaker Mr. Ashish Vidyarthi organized by WILSON COLLEGE as part of STEP PROGRAMME on June 14, 2020.
- Received a **Certificate of Achievement on June 28, 2020** for participating One Day International Webinar on **"Novel Corona Virus-From Discovery to Clinical Diagnosis"** organized by Department of Chemistry, TATA College, Chaibasa.
- Received e-Certificate of Participation on June 30, 2020 for attending One Day National Webinar on "Online Teaching-Learning Process and Assessment During Covid-19 Pandemic" organized by Department of Education (B.Ed.), R.S.P. College, Jharia.
- A MHRD, GOI funded Faculty Development Centre sanctioned under "Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) "One Week Online Faculty Development Programme on Advancing Towards Sustainable Teaching Learning & Evaluation Methods" participated from August 10, 2020 to August 14, 2020 organized by SYDENHAM Faculty Development Centre, PMMMNMTT, Mumbai in association with K. J. Somaiya College of Arts & Commerce, Vidyavihar, Mumbai under the UGC-PARAMARSH SCHEME and obtained Grade 'A'.
- Received **Certificate of Appreciation** from Hon'ble Vice-Chancellor, Binod Bihari Mahto Koyalanchal University, Dhanbad **for extraordinary service and dedication to profession as Coordinator, College Development Council (CCDC)** in the year 2019-2020.
- Received **Certificate of Appreciation** from Hon'ble Vice-Chancellor, Binod Bihari Mahto Koyalanchal University, Dhanbad for extraordinary service and dedication to profession as **Coordinator, College Development Council (CCDC)** in the year 2020-21.
- Received **The Academic Exellence Award** on the occasion of **Azadi Ka Amrit Mahotsav** in the field of Nonlinear Optics in Physics on August 12, 2022.

CONFERENCE/SEMINAR/SYMPOSIA ORGANIZED:

- Organized successfully UGC Sponsored National Seminar on "RECENT TRENDS IN EMERGING FRONTIERS OF PHYSICAL SCIENCES" (RTEFPS-2009) at Sindri College, Sindri (A Constituent Unit of Vinoba Bhave University, Hazaribag) in collaboration with BIT Sindri (Department of Science & Technology, Government of Jharkhand, Ranchi) during November 02-03, 2009.
- Organized Lecture of **Prof. (Dr.) Ajoy K Ghatak, IIT Delhi** on the topic **EINSTEIN & SPECIAL THEORY OF RELATIVITY** at PKRM College, Dhanbad (*A PG Constituent Unit of Vinoba Bhave University, Hazaribag*) on **February 19, 2010**.
- Organized successfully UGC Sponsored National Seminar on "RECENT ADVANCES IN PHYSICAL SCIENCES" (RAPS-2018) at P. K. Roy Memorial College, Dhanbad (A PG Constituent Unit of Vinoba Bhave University, Hazaribag) in collaboration with BIT Sindri (Department of Science & Technology, Government of Jharkhand, Ranchi) during January 19-20, 2018.

EMPLOYMENT/PROFESSIONAL EXPERIENCES:

16 Years & 07 Months *approx.* (till date)

- Assistant Professor, University Department of Physics, Binod Bihari Mahto Koyalanchal University, Dhanbad 22nd November 2018 to Continue
- Assistant Professor, Department of Physics, P. K. Roy Memorial College, Dhanbad (A PG Constituent Unit of Vinoba Bhave University, Hazaribag, India)

01st November 2017 to 21st November 2018

- Assistant Professor, Department of Physics, Sindri College, Sindri (A Constituent Unit of Vinoba Bhave University, Hazaribag,India)
 19th April 2017 to 31st October 2017
- Assistant Professor, University Department of Physics, Vinoba Bhave University, Hazaribag

04th January 2016 to 18th April 2017

• Assistant Professor, Department of Physics, P. K. Roy Memorial College, Dhanbad (A PG Constituent Unit of Vinoba Bhave University, Hazaribag, India)

08th July 2014 to 3rd January 2016

- Assistant Professor, Department of Physics, Sindri College, Sindri, Dhanbad (A Constituent Unit of Vinoba Bhave University, Hazaribag,India)
 3rd March 2008 to 7th July 2014
- Lecturer, Department of Physics, University of Petroleum & Energy Studies (UPES), Dehradun, India. (UGC Recognized Private University)
 18th August 2006 to 1st March 2008
- Lecturer, Department of Physics, Dev Bhoomi Institute of Technology, Dehradun. (Affiliated by Hemwati Nandan Bahuguna Garhwal University, Srinagar, India)

22nd December 2005 to 17th August 2006

TEACHING EXPERIENCES:

17 Years & 02 Months *approx.* (till date)

- Under-Graduate: 17 Years & 02 Months approx. (till date)
- Post-Graduate: 09 Years & 02 Months approx. (till date)

SUBJECTS TAUGHT:

- PHY-Under and Post-Graduate Level Physics
 - ✓ Atomic and Molecular Physics
 - ✓ Solid State Physics
 - ✓ Electronics (Analog and Digital)
 - ✓ Laser Physics
 - ✓ Electromagnetic Theory
 - ✓ Nano-Physics
- **PHY-101/102**: Applied Physics (UPES, Dehradun)
- **PHY-101/102**: Engineering Physics (DBIT, Dehradun)

RESPONSBILITIES:

- **Prepared Laboratory Manual of Physics and Electronics** for 1st year B.Tech Courses in UPES, Dehradun in 2007.
- Incharge of Time-Table Committee in UPES, Dehradun for Undergraduate and Postgraduate courses (like B.Tech, M.Tech, MBA etc) for the session 2007-08.
- Prof. In-Charge of INFLIBNET CENTRE of P. K. Roy Memorial College, Dhanbad w. e.f. August 03, 2013 to September 13, 2013.
- Member of Arrear Committee (Teaching & Non-Teaching Staff of P. K. Roy Memorial College, Dhanbad) w. e.f. August 21, 2013 to September 13, 2013.
- Incharge of Time-Table Committee in Sindri College, Sindri for Undergraduate Arts, Science & Commerce faculties (2008-09, 2009-10, 2010-11, 2012-13 & 2013-14).
- Coordinator of IQAC & NAAC at Sindri College, Sindri w. e.f. April 07, 2014 to July 07, 2014.
- Dy. Nodal Officer of RUSA Cell at P. K. Roy Memorial College, Dhanbad w. e.f. July 25, 2014 for one academic session.
- Nodal Officer of Equity Assurance Plan of RUSA at P. K. Roy Memorial College, Dhanbad w. e.f. July 28, 2014 for academic session 2014-15.
- Nominated Member of IQAC at BBM College, Baliapur w. e.f. November 18, 2014 for academic session 2014-15.
- Part-time Asstt. Coordinator cum Counselors in IGNOU at P. K. Roy Memorial College, Dhanbad w.e.f. January 01, 2015 to March 31, 2016.
- Nominated member for inspecting 'Kumar B.Ed. College' Rajganj for Affilation of the B.Ed. courses for session (2015-17).
- Nominated member for PG Research Council of VBU Hazaribag w.e.f. September 22, 2015 to April 18, 2017.
- **Member** of **Scrutiny Committee** for appointment of Assistant Prof./HOD in B.Ed. Colleges at VBU Hazaribag.

- Counting Officer for conducting the election of a member of Medical Council of India on September 10, 2016 at VBU Hazaibag.
- Appointed as Centre Superintendent at Rajiv Gandhi Teachers' Training College, Dhanbad for conducting B.Ed. Semester-II Examinations for session 2016-18 on October 03, 2017.
- Appointed as Centre Superintendent at Rajiv Gandhi Teachers' Training College, Dhanbad for conducting U.G. Semester-IV Examinations for session 2015-18 on October 07, 2017.
- Appointed as Centre Superintendent at Rajiv Gandhi Teachers' Training College, Dhanbad for conducting B.Ed. Semester-IV Examinations for session 2015-17 on December 19, 2017.
- Member of the committee to prepare remarks/suggestions regarding Higher Education Commission of India Bill, 2018, on July 25, 2018.
- Appointed as Centre Superintendent at Rajiv Gandhi Teachers' Training College, Dhanbad for conducting B.Ed. Semester-IV Examinations for session 2016-18 on September, 22, 2018.
- Appointed as Centre Superintendent at Rajiv Gandhi Teachers' Training College, Dhanbad for conducting U.G. Semester-I Examinations for session 2017-20 on January 29, 2018.
- Member of Board of Courses of Studies in UG and PG Physics courses at VBU Hazaribag in 2018.
- Appointed as **Public Information Officer (PIO)** of P. K. Roy Memorial College, Dhanbad w.e.f. May 07, 2018 to November 20, 2018.
- Member of Research committee at P. K. Roy Memorial College, Dhanbad w.e.f. May 29, 2018 to November 20, 2018.
- Member of Student Grievance Redressal Cell at BBMK University level w.e.f. July 25, 2018.
- Appointed as Social Media Champion (SMC) of the BBMK University w.e.f. July 19, 2019 to May 12, 2022.
- Member for Post-Graduate Research Council of BBMK University, Dhanbad w.e.f. November 01, 2019 to continue.
- Appointed as University Co-ordinator for Implementation of Anti-Plagiarism Detection of the BBMK university w.e.f February 11, 2020 to continue.
- Member for 'Affiliation and New Teaching Programme Committee' of the BBMK University w.e.f. November 01, 2019 to continue.
- Member for 'Departmental Research Council' of Department of Physics of BBMK University, Dhanbad w.e.f. February 19, 2020 to continue.
- Appointed as 'Public Information Officer' of the BBMK University w.e.f. August 24, 2021 to May 12, 2022.
- Appointed as 'University Website Technical Cell' In-charge of the BBMK University w.e.f. May 09, 2020 to May 12, 2022.
- Appointed as **Chairman 'NAAC Monitoring Cell'** of all colleges under Binod Bihari Mahto Koyalanchal University, Dhanbad w.e.f. June 03, 2020 to May 12, 2022.
- Member for inspecting 'Visthapit Mahavidyalaya, Balidih for affiliation of the U.G. URDU course (Honours & Pass Courses) for session (2022-25) on August 09, 2022.
- Member of Board of Courses of Studies in UG and PG Physics courses at BBMK University w.e.f. September 27, 2022 to continue.
- Appointed as 'Director, Research' of the BBMK University w.e.f. October 14, 2022 to continue.
- Member for inspecting 'Post Basic B.Sc. (Nursing) course' Dhanbad for the renewal of affiliation of the Post Basic B.Sc. (N) course for session (2022-24) on December 05, 2022.
- Member of 'Promotion of Teachers under CAS 2010 & 2018' of BBMK University w.e.f. January 20, 2023.
- Member of 'Internal Quality Assurance Cell (IQAC)' of BBMK University w.e.f. January 20, 2023.
- Member of 'Post Creation, Absorption and Confirmation Committee' of BBMK University w.e.f. January 23, 2023.
- Member for inspecting 'Tathagat Teachers' Training College' Dhanbad for permanent affiliation of the B.Ed. courses for session (2023-25) on January 23, 2023.
- Appointed **'University Representative'** for the appointment of Lecturer(s) at Dr. C. C. Mahto Teachers' Training College, Chas, Bokaro on December 13, 2022.

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CV: Dr Dilip Kumar Giri

- Appointed as 'Member Secretary, Ph.D. Cell' of the BBMK University w.e.f. February 02, 2023 to May 19, 2023.
- Member of 'Study Leave Committee' of BBMK University w.e.f. February 23, 2023 to continue.
- Appointed as 'Dean, Academic' of the BBMK University w.e.f. April 17, 2023 to continue.
- Member of 'Proctorial Board' of BBMK University w.e.f. April 17, 2023 to continue.
- Member of 'Finance Committee' of BBMK University for two years (2024).

SATUTORY ADMINISTRATIVE POSITION HOLD:

 Appointed as Co-ordinator, College Development Council (CCDC), of Binod Bihari Mahto Koyalanchal University, Dhanbad for the periof of three years i.e. from May 08, 2019 to May 10, 2022.

RESEARCH PROJECTS/EXPERIENCES:

14 Years & 09 Months *approx.* (till date) (4 years duration of M.Phil. & Ph.D. are excluded)

- UGC Research Project (Minor)(Completed) (UGC, Project No.F. PSJ-003/14-15 (ERO) dated 03.02.2015) (June 2015 to February 2019) Cost: Rs.3,09,000.00 Title: "Squeezing of Sum-and Difference-Frequency Generation of Light in Multi-Wave Mixing Processes" Principal Investigator: Dr. Dilip Kumar Giri Summer Research Project (INSA-IAS-NASI) (June 2011 – July 2011) Tenure – 2 Months Title: "Using Squeezed States as Resource for Quantum Teleportation" Supervisor: Dr. R. P. Singh, PRL, Ahmedabad UGC Research Project (Minor)(Completed) (UGC, Project No. F. PSJ-023/09-10(ERO) dated: 08 Oct, 2009) (November 2009 – April 2011) Tenure – 18 Months Cost: Rs. 71,000.00 Title: "Theoretical Aspects of Squeezed State Generation and Photon Statistical Effects in Nonlinear **Optical Processes**" Principal Investigator: Dr. Dilip Kumar Giri Solar Consultancy Project (Govt. of Uttarakhand-UREDA) (March 2007 – August 2007) Title: "Performance Evaluation of Solar Equipments in Schools of Uttaranchal" Project Coordinator: Dr. Dilip Kumar Giri **Solar Research Project** (UPES-B.Tech.- IV Semester, 2006) Title: "Solar Water Treatment of Saline Water" Supervised by: Dr. Dilip Kumar Giri **Doctoral** (Ph.D.) Programme (June 2002 - June 2005). Title: "Study of the Phenomena of Squeezing of Radiation - Normal and Higher-Order in Selected Nonlinear Optical Processes" Supervisor: Prof. (Dr.) P. S. Gupta Pre-Doctoral (M.Phil.) Programme (July 2001 - June 2002). Title: "Study of Squeezing Properties of Radiation in Multiwave Mixing Processes" Supervisor: Prof. (Dr.) P. S. Gupta **AREAS OF RESEARCH AND EXPERTISE: Nonlinear and Quantum Optics**
 - ✓ Nonclassical States of Light: Squeezing and Sub-Poissonian Photon Statistics of Light
 - ✓ Photon Antibunching of Light, Entanglement of States, Quantum Information/Teleportation

Non-Conventional Energy & Renewable Energy: Solar Energy

NUMBER OF Ph.D. SCHOLARS GUIDED:

02 1. Mr. Binod Kumar Choudhary Title: Study of Nonclassical Properties of Radiation in Nonlinear Optical Processes Date of Pre-Registration Seminar: VBU/27th August, 2011 University Registration No.: Ph.D./Sc.-871/2013 Date of Registration: 27th August, 2011 Date of Ph.D. Pre-Submission: 16th March 2019 Date of Final Ph.D. Viva-Voce Examination: 17th January 2020 Date of Ph.D. Award: 01st February 2020 Awarding University: Vinoba Bhave University, Hazaribag 2. Mrs. Nitu Sahu Title: Study of Higher-Order Nonclassical States of Light in Multi-Wave Mixing Processes Date of Pre-Registration Seminar: VBU/08th March, 2017 University Registration No.: Ph.D./Ph.-29223/2016 Date of Registration: 08th March, 2017 Date of Ph.D. Pre-Submission: 01st October 2021 Date of Final Ph.D. Viva-Voce Examination: 27th August 2022 Date of Ph.D. Award: 22nd September 2022 Awarding University: Vinoba Bhave University, Hazaribag NUMBER OF Ph.D. SCHOLARS ENROLLED: 03 1. Mr. Samiran Kumar

- Title: Study of Nonlinear Optical Phenomena of Light in Multiphoton Processes Date of Pre-Registration Seminar: VBU/09th August, 2016 (Ongoing) University Registration No.: Ph.D./Ph.-29282/2017 Date of Registration: 09th August, 2016
- 2. Mr. Rupesh Singh Title: Study of Non-classical States of Light and Their Applications in the Field of Optical Telecommunication

Date of DRC & Pre-Registration Seminar: 16th September, 2020 (Ongoing) University Registration No.: BBMKU/Ph.D.0082 Date of Registration: 16th September, 2020

3. Mr. Sourish Sarkar Title: Study of Quantum Entanglement Properties of Light in Nonlinear Optical Phenomena Date of DRC & Pre-Registration Seminar: 16th September, 2020 (Ongoing) University Registration No.: BBMKU/Ph.D.0182/2020 Date of Registration: 16th September, 2020

RESEARCH PUBLICATIONS: In Refereed Journals/Conferences/Seminars/etc. Total Number of Publications: 29+ 43 = 72 (List of Publications-Enclosed)

- Number of papers published / accepted in International Refereed Journals :21
- Number of papers published / accepted in National Refereed Journals :04
- Number of papers communicated in International / National Refereed Journals :04
- Number of papers accepted / presented in International Conferences :09
- Number of papers accepted / presented in National/State Lavel Conferences • :33
- Number of Chapters in Books :01

SKILLS/INTERESTS:

- Basic Computer Knowledge, 'C' Programming, ORIGIN, MATHEMATICA, MATLAB
- Languages Known: Hindi, English and Bhojpuri
- Astrology, Spiritual Books, Music, Movies.

REFERENCES:

1. Prof. (Dr.) Ravindra Pratap Singh, Scientist-F

Quantum Optics & Quantum Information Group, Physical Research Laboratory, Ahmedabad Navrangpura, Ahmedabad – 380 009, Gujrat, India Ph. No.: 09825754406 E-mail: <u>rpsingh@prl.res.in</u>

2. Prof. (Dr.) Anil Kumar Nirala

Department of Applied Physics, Indian Institute of Technology (Indian School of Mines), Dhanbad-826 004, Jharkhand, India Ph. No.: 09431125123, Fax: +91-0326-2203042 E-mail: <u>aknirala@yahoo.com</u>

LIST OF PUBLICATIONS:

IN REFEREED INTERNATIONAL & NATIONAL JOURNALS

- 1. Dilip Kumar Giri and P. S. Gupta "Short-time squeezing effects in spontaneous and stimulated sixwave mixing process" Optics Communications, Netherlands 221 (2003) 135-143.
- Dilip Kumar Giri and P. S. Gupta "Short-time fourth-order squeezing effects in spontaneous and stimulated four-and six-wave mixing processes" Journal of Optics B: Quantum Semiclassical Optics, UK 5 (2003) 158-163.
- 3. Dilip Kumar Giri and P. S. Gupta "Short-time squeezing effects in spontaneous and stimulated fourwave mixing process" Asian Journal of Physics, India 12 (2003) 109-116.
- 4. Dilip Kumar Giri and P. S. Gupta *"Higher-order squeezing in Raman scattering"* Indian Journal of Pure and Applied Physics, India 41 (2003) 946-949.
- 5. Dilip Kumar Giri and P. S. Gupta *"The squeezing of radiation in four-wave mixing processes"* Journal of Optics B: Quantum Semiclassical Optics, UK 6 (2004) 91-96.
- 6. Dilip Kumar Giri and P. S. Gupta "Quantum squeezing effects of radiation in Stokes and anti-Stokes modes in coherent anti-Stokes Raman scattering and coherent anti-Stokes hyper-Raman scattering" Journal of Modern Optics, UK 51 (2004) 1705-1715.
- 7. Dilip Kumar Giri and P. S. Gupta "Higher-order squeezing of the electromagnetic field in spontaneous and stimulated Raman processes" Journal of Modern Optics, UK 52 (2005) 1769-1781.
- 8. Dilip Kumar Giri and P. S. Gupta "nth-order squeezing of the field amplitude in Raman process as a generalization of the higher-order squeezing" International Journal of Modern Physics B, Singapore 19 (2005) 1943-1953.
- 9. Dilip Kumar Giri and P. S. Gupta "Squeezing effects in the sum and difference of the field amplitude in the Raman process" Modern Physics Letters B, Singapore 19 (2005) 1261-1276.
- 10. Dilip Kumar Giri and P. S. Gupta "*nth-order amplitude squeezing effects of radiation in multiphoton processes*" International Journal of Modern Physics B, Singapore 20 (2006) 2265-2281.
- 11. Dilip Kumar Giri "Squeezed states of light" Energy Acres, University of Petroleum & Energy Studies, Dehradun 3 (2007) 28-30.
- 12. Dilip Kumar Giri and P. S. Gupta "The amplitude squeezing effects of the electromagnetic field in six-wave interaction model" Modern Physics Letters B, Singapore 22 (2008) 219-230.
- 13. Dilip Kumar Giri, P. S. Gupta, M. K. Mahan and Ajay Prasad *"Higher-order squeezing and subpoissonian photon statistics in CARS and CAHRS"* Optical and Quantum Electronics, Springer Verlag, Germany 42 (2010) 215-229.
- 14. **Dilip Kumar Giri**, Ravindra Pratap Singh and Abir Bandyopadhyay *"Displacement gain dependent fidelity in quantum teleportation using entangled two-mode squeezed light"* Optical and Quantum Electronics, Springer Verlag, Germany 46 (2014) 1127-1137.
- 15. Rajendra Pratap, **Dilip Kumar Giri**, and Ajay Prasad *Effects on squeezing and sub-poissonian of light in fourth harmonic generation upto first-order Hamiltonian interaction* Optik- International Journal for Light and Electron Optics, Netherlands 125 (2014) 1065-1070.
- 16. Rajendra Pratap, **Dilip Kumar Giri**, and Ajay Prasad *"Nonclassical effects of light in fifth harmonic generation upto first-order Hamiltonian interaction"* ISRN Optics, USA (2014) 1-10.

It is certified that the facts stated above are true to the best of my knowledge and belief. - Dr D K Giri

17. Rajendra Pratap, **Dilip Kumar Giri**, and Ajay Prasad *"Squeezing and sub-poissonian effects of light in third harmonic generation"* Acta Physica Polonica A, Poland 125 (2014) 1126-1131.

- 18. B. K. Choudhary and **Dilip Kumar Giri** *"Squeezing in the sum and difference of the field amplitude in parametric down-conversion process"* IOSR Journal of Applied Physics, India 8 (2016) 31-41.
- 19. B. K. Choudhary and **Dilip Kumar Giri** *"Difference squeezing of the optical fields in degenerate six-wave interaction process"* International Journal of Scientific Research in Physics and Applied Sciences, India 6 (2018) 21-29.
- 20. B. K. Choudhary and **Dilip Kumar Giri** "Nonclassical states of light in parametric down-conversion process" Journal of Physical Sciences" India 23 (2018) 261-277.
- 21. B. K. Choudhary and **Dilip Kumar Giri** *"Squeezing, sub-poissonian and total noise in degenerate six-wave mixing process"* Acta Physica Polonica A, Poland 134 (2018) 1108-1114.
- 22. Dilip Kumar Giri and B. K. Choudhary "Sum squeezing of the field amplitude in frequency upconversion process" International Journal of Optics, USA 2020/1483710 (2020) 1-9.
- 23. Samiran Kumar and **Dilip Kumar Giri** *"Realization of nonclassical effects of light and total noise in CARS and CAHRS up to the first-order hamiltonian interaction"* Journal of Russian Laser Research, Springer Verlag, Germany 41 (2020) 235-245.
- 24. Samiran Kumar and **Dilip Kumar Giri** "Nonclassical states and total noise in five-wave interaction process" Journal of Optics, Springer Verlag, India/Germany 49(4) (2020) 549-555.
- 25. Nitu Sahu and **Dilip Kumar Giri** *"Squeezing in the difference of the fields in degenerate four-and five-wave mixing interaction processes"* Journal of Scientific Research, Bangladesh 13 (2) (2021) 377-394.
- 26. Nitu Sahu, Samiran Kumar and **Dilip Kumar Giri** *"Higher-order antibunching of light in seven-photon interaction process"* Journal of Russian Laser Research, Springer Verlag, Germany 43 (2022) 290-306.
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