


CURRICULUM VITAE

Dr. Partha Goswami,



Dr. Partha Goswami, M.Sc., M.Phil, and Ph.D. from University of Delhi , is presently an Associate Professor in Physics in Deshbandhu College, University of Delhi. He has done his graduation, with first class first position, from St. Xavier’s college, Ranchi. He has been teaching MATHEMATICAL PHYSICS to B.Sc.(Physics Hons.) students for the past thirty years. His area of specialization is Condensed Matter Physics(Theory) . He has twenty six research papers to his credit, mostly under sole authorship, published in prestigious journals of Physics.

| Title | Dr. | First Name | Partha | Last Name | Goswami | Photograph |
|-------------------------------------|--|-----------------|--------|-----------|---------|--|
| DOB/Designation | 17.11.1955/Associate Professor | | | | |  |
| Address | Physics Department, Deshbandhu College, University of Delhi, Kalkaji, New Delhi -110019, India | | | | | |
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| Educational Qualifications | | | | | | |
| Degree | Institution | | | | Year | |
| Ph.D. | University of Delhi | | | | 1985 | |
| M.Phil. | University of Delhi | | | | 1979 | |
| PG | University of Delhi | | | | 1978 | |
| UG | St. Xavier’s College, Ranchi | | | | 1975 | |
| Any other qualification | | | | | | |
| Career Profile | | | | | | |
| Associate Professor 2006 onwards | | | | | | |
| Reader/Selection Grade – 1998 -2006 | | | | | | |
| Senior Lecturer : 1991-1998 | | | | | | |
| Lecturer – 1985-1991 | | | | | | |

LIST OF PAST PEER-REVIEWED RESEARCH PUBLICATIONS

1. K.K.Singh and Partha Goswami, Phys.Rev.B 29 (1984)2558 . ISSN 2469-9950 (print) 2469-9969 (online) 1538-4489 (CD-Rom).
2. K.K.Singh and Partha Goswami, Phys. Rev.B 31 (1985) 4285.
3. Partha Goswami, Pramana - J Phys 25: 649 (1985). <https://doi.org/10.1007/BF02847726>
4. Partha Goswami, Phys.Rev.B 33 (1986) 6094.
5. Partha Goswami, Phys.Rev.B 35(1987) 2048.
6. Partha Goswami, Phys.Rev.B35 (1987) 4775.
7. Partha Goswami, Phys.Rev.B49 (1994) 1600.
8. Partha Goswami and K.K. Singh, Phys. Rev.B 53(1996) 8583.

LIST OF PEER-REVIEWED MORE RECENT PUBLICATIONS

1. Partha Goswami, Physica B 403,999(2008).
2. Partha Goswami, Physica B 403,2872(2008).
3. Partha Goswami et al. “ Quantum dot solar cell: An overview toward theoretical developments”, A chapter in the book “Applied Physics in 21st century,2008:159-183(ISBN:978-81-308-0238-1).
4. Partha Goswami and Avinashi Kapoor, Physica E 41 379 (2010).
5. Partha Goswami, Phys. Status Solidi B 247, No. 3, 595–598 (2010).
6. Partha Goswami and Manju Rani, Advances in Condensed Matter Physics (ACMP), Hindawi Publishing Corporation, Volume 2010(2010), Article ID 928419, doi:10.1155/2010/928419.
7. Partha Goswami, “ Acta Physica Polonica A”, No.4, Vol. 122(2012).
8. Partha Goswami, Ref.: Ms. No. SCES165, Journal of Physics: Conference Series(Vol.391) 012153 (2012),doi:10.1088/1742-6596/391/1/012153.
9. Partha Goswami, International Scholarly Research Network, ISRN Condensed Matter Physics, Volume 2013(2013), Article ID 210384, 26 pages, doi:10.5402/2012/210384.
10. Partha Goswami, Phys. Status Solidi B, 1–6 (2013) / doi: 10.1002/pssb.201200588.

- 11.** Partha Goswami, “Lifshitz transition including many-body effects in Bi-layer Graphene and change in stacking order”, Manuscript ID : 2690009, *Graphene*, **2013**, 2, 88-95; doi: 10.4236 /graphene.2013.22013 Published Online April **2013**.
- 12.** Partha Goswami, Vol. 124, Acta Physica Polonica A No. 1(**2013**).
- 13.** Partha Goswami, Ajay Pratap Singh Gahlot, and Pankaj Singh, International Journal of Modern Physics B Vol. 27, No. 13 1330008 (**2013**), World Scientific Publishing Company, doi : 10.1142/S0217979213300089.
- 14.** Partha Goswami, “Effect of disorder in the transition from topological insulator to valley-spin polarized state in silicene and Germanene”, Indian J Phys DOI 10.1007/s12648-014-0637-9(Springer), Published online 23 December **2014**.
- 15.** Partha Goswami, “Disorder driven transition beyond two-component, single-flavor Dirac physics in silicene” IOP Conf. Series: Materials Science and Engineering 80 012006 (**2015**) , doi:10.1088/1757-899X/80/1/012006.
- 16.** Partha Goswami, “Casimir-Polder Repulsive Interaction”, Mater. Sci. Eng. Adv. Res 1(2): 26-35 (**2015**).
- 17.** Partha Goswami, “Proximity-induced Ferromagnetic Order in Graphene on Transition Metal Dichalcogenides”, Mater. Sci. Eng. Adv. Res 1(3): 18-21 (**2016**).
- 18.** Partha Goswami, “Fermions on the low-buckled honey-comb structured lattice plane and classical Casimir Polder force”, International Journal of Modern Physics B, Vol. 30, No. 16 (**2016**) 1650087 (36 pages), World Scientific Publishing Company. DOI: 10.1142/S0217979216500879.
- 19.** Partha Goswami, " Dielectric properties of graphene on transition metal dichalcogenide substrate (Manuscript No pssb.201600827) ” . Published in the journal Physica Status Solidi B: Basic Solid State Physics. 1600827 (2017) / DOI 10.1002/pssb.201600827.
- 20.** Partha Goswami, " Effect of ferromagnetic exchange field on band-gap and spin-polarization of graphene on a TMD substrate”. Pramana - J Phys 90: 40 (2018). <https://doi.org/10.1007/s12043-017-1515-8>.
- 21.** Partha Goswami, “Optical properties of uniaxially strained graphene on transition metal dichalcogenide substrate”, International Journal of Modern Physics B Vol. 32, No. 13 1850164 (2018). <https://doi.org/10.1142/S0217979218501643>.
- 22.** Partha Goswami, “Strong confinement of unconventional plasmons and optical properties of graphene-transition metal dichalcogenide heterostructures”, Journal of Physics Communications Vol. 2, No. 6, 065012 (2018). <http://iopscience.iop.org/article/10.1088/2399-6528/aac7a1/meta>

Books/Monographs (Authored/Edited):

(1)Written a book(sole author) titled “Problems in general Physics” for the +2 and under-graduate students with the Publisher: Galgotia Publications Pvt. Ltd, 5, Ansari Road, Daryaganj, Delhi 110 002 . ISBN: 81-7515-083-1.

(2)Written a book(sole author) titled “Mathematical Physics” for the under-graduate students with the Publisher: Cengage Learning India Pvt. Ltd, 418, F.I.E., Patparganj, Delhi 110 092 . ISBN-13; 978-81-315-1786-4; ISBN-10; 81-315-1786-1

Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals; Research papers/Extended Abstracts Published in Conferences/Seminar in Refereed/Peer Reviewed Conferences

- **USA, May 2007:** Abstract in conference proceedings of the International Conference on **Strongly correlated electron systems(SCES)** in Houston.
- **Germany, June 2008:**Abstract in conference proceedings of the International Conference on [Unconventional Phases and Phase Transitions in Strongly Correlated Electron Systems](#) at Max Planck Institute, Dresden, Germany.
- **USA, June 2008:** Abstract in conference proceedings of the 2008 Correlated Electron Systems Gordon Research Conference New Biddeford, Maine(USA).
- **Germany June 2009:** Abstract in conference proceedings of the International Conference on Magnetism(ICM), Karlsruhe.
- **India, December 2009:** Presented paper on Quantum oscillations in Solid State Physics Symposium under the aegis of Department of Atomic Energy (India) at Vadodara (India).
- **Turkey June 2010:** Abstract in conference proceedings of the International Conference on Superconductivity and Magnetism(ICSM), Antalya.

Conference/Workshop/Seminar/ Symposium/ Colloquia Organized /Attended

- **USA, May 2007:** Participated and presented paper in the International Conference on **Strongly correlated electron systems(SCES)** in Houston.
- **Germany, June 2008:** Participated and presented paper in the International Conference on [Unconventional Phases and Phase Transitions in Strongly Correlated Electron Systems](#) at Max Planck Institute, Dresden, Germany.
- **USA, June 2008:** Participated and presented paper in the 2008 Correlated Electron Systems Gordon Research Conference New Biddeford, Maine(USA).
- **Germany June 2009:** Participated and presented two papers in the International Conference on Magnetism(ICM) 2009, Karlsruhe.
- **India, December 2009:** Participated and presented paper on Quantum oscillations in Solid State Physics Symposium under the aegis of Department of Atomic Energy (India) at Vadodara (India).
- **Germany, March 2011:** Participated and presented paper in Korrelationstage 2011 at Max Planck Institute, Dresden, Germany
- **USA, February 2012:** Participated and presented a paper on Fractional Quantum Hall Effect in the Aspen Centre for Physics, CO, Aspen(USA), February 2012.
- **UK, July 2014:** A talk delivered on Disorder driven transition beyond two-component, single-flavor Dirac physics in silicene in Eurodim 2014(12th Europhysical Conference on Defects in Insulating Materials) at the University of Kent, Canterbury, England (.13-19 July 2014).

Administrative Experience

(1)The applicant was the teacher-in-charge of the Physics Dept. of the college in the year 1998-2000. The applicant is presently also the in-charge of the department.

(2) The applicant was the convener of the proctorial, cultural, and purchase committees of the college during 2004-2007.

Nartha Goswami Date:05/05/2018