

Prof. Amritanshu Shukla

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Additional Dean (Students Welfare) and Director, Incubation Cell

(NAAC Accredited A++ University)

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Academic Profile

- **Professor in Physics** at the University of Lucknow (Continued Since Dec 2021).
- **Associate Professor in Physics** at Rajiv Gandhi Institute of Petroleum Technology Jais, Amethi.
- **Assistant Professor in Physics (Senior Scale)** at Rajiv Gandhi Institute of Petroleum Technology, Raebareli India.
- **Assistant Professor in Physics** at Rajiv Gandhi Institute of Petroleum Technology, Raebareli India.
- **Postdoctoral Fellow** at Physical Research Laboratory Ahmedabad, India.
- **Postdoctoral Fellow** at University of North Carolina, Chapel Hill, USA.
- **Postdoctoral fellow** at Institute of Physics Bhubaneswar, India.
- **Visiting Researcher** – Lund University, Sweden.
- **Visiting Researcher** - University of Nice Sophia Antipolis, France.
- **Visiting Researcher** – Kunshan University, Taiwan.
- **Visiting Researcher** – Institute of Physics, Bhubaneswar, India.
- **Visiting Researcher** – Physical Research Laboratory, Ahmadabad, India.
- **Visiting Researcher** – University of Rome Tor Vergata/Gran Sasso Lab, Italy.
- **Visiting Researcher** – Institute of Nuclear Theory, Seattle USA.

Educational Background

- **Ph.D.** in Physics (Indian Institute of Technology, Kharagpur, India)
- **M. Sc.** in Physics (University of Lucknow, India - with **Second Rank in the University**).
- **B. Sc.** in Physics, Mathematics and Chemistry (University of Lucknow)

Academic Honors

- Ranked among **Top 2 % of scientists of the world** in Physics University by Stanford University, USA (2020, 2021, 2022).
- **Best poster award** at 7th World Renewable Energy Technology Congress & Expo-2016 held at Convention Centre-New Delhi City Centre, Parliament Street, New Delhi, India (**Aug 2016**).
- **Best Teacher Award by institute (2013-2014)**.
- **Best poster award** at International Conference on Emerging trends in Science & Technology & its Impact on Environment & Society held at AISECT University, Bhopal (during 15th to 17th February 2014).
- **Best poster award** at 4th World Renewable Energy Technology Congress & Expo-2013 during 25th to 27th September 2013 held at Convention Centre-New Delhi City Centre, Parliament Street, New Delhi, India.
- **Offered PRL Associateship by Physical Research Laboratory Ahmedabad, India for two years (Jan 2009 to Jan 2011) to carry out collaborating research with Physical Research Laboratory.**
- **Awarded Research grant for five years by Department of Science, Government of Portugal (Oct 2008- Not availed).**
- **Awarded Research grant for 18 months by Department of Science, Government of Sweden (July 2008- Not availed).**

- **Category ‘A’ speaker of Theoretical Physics Seminar Circuit** to deliver talks at various research institutes in India (2005-2006).
- **Postdoctoral fellowship** by Institute of Physics Bhubaneswar (2005).
- **Category ‘A’ speaker of Theoretical Physics Seminar Circuit** to deliver talks at various research institutes in India (2004-2005).
- **Department of science and Technology (DST), Government of India, Award of Young researcher for Participation in the Meeting of Nobel Laureates and Students in Lindau, Germany in June 2004.**
- Nominated for **Young Physicists award** by Indian Physical Society in 2004.
- **Best Poster and Oral Presentation Prize at VIIth School on Non-Accelerator Astro-particle Physics** held at International Centre for Theoretical Physics (ICTP), Trieste Italy (July 2004).
- **Institute fellowship for Ph. D.** by Indian Institute of Technology Kharagpur (from January 2001 to December 2004).
- **National Eligibility Test for Junior Research Fellowship (JRF) organized by Council for Scientific and Industrial Research (CSIR) in 2000** securing position among top 4% Physics JRFs of the country.
- **Second rank in University** at Masters.
- **National Merit Scholarship** from High school onwards till Graduation (1992-1997; 5 Years).
- **State Level Integrated Scholarship** throughout High school (1990-1992; 2 Years).
- **District Level Junior High School Scholarship** throughout Junior High school studies (1987-1990; 3 Years).

Research Publications

Research papers- 189

Refereed journals (published)- 65

Refereed journals (in communication)- 8

Refereed journals (in preparation)- 9

Conference proceedings- 75

Technical reports-2

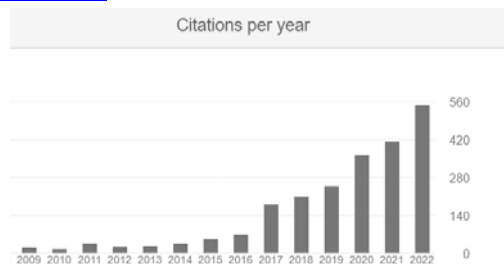
Book Chapters -32

For the list of publications in refereed journals, please refer to the following link :

<https://scholar.google.com/citations?user=qR6TkysAAAAJ&hl=en&oi=ao>

h-index - 25 i10-index – 39 Citations - 2282

(Citation per year shown in adjacent bar chart)



Books Published

1. Energy Security & Sustainability: Present and Future
Edited Book, Ed. A. Shukla and A. Sharma
2016, **Published with CRC press/Taylor & Francis Publishing USA**, ISBN 9781498754439.
2. Sustainability through Energy Efficient Buildings
Edited Book, Ed. A. Shukla and A. Sharma
2018, **Published with CRC press/Taylor & Francis Publishing USA**, ISBN 9781138066755.
3. Low Carbon Energy Supply - Trends, Technology, Management
Edited Book, Ed. A. Sharma, A. Shukla and Lu Aye
2018, **Published with Springer Nature Singapore Pte Ltd., Singapore**, ISBN 9789811073250.
4. Latent Heat-Based Thermal Energy Storage Systems Materials, Applications, and the Energy Market
Edited Book, Ed. A. Shukla, A. Sharma and Pascal Henry Biwolé
(2020, **Published with Apple Academic Press, Canada**, ISBN: 9781771888585).
5. Nuclear Structure Physics
Edited Book, Ed. A. Shukla and S. K. Patra
(2020, **Published with CRC press/Taylor & Francis Publishing USA**, ISBN 9780367256104).
6. Low Carbon Energy Supply Technologies and Systems

Edited Book, Ed. A. Sharma, A. Shukla and R. Singh

(2020, **Published with CRC press/Taylor & Francis Publishing USA**, ISBN 9780367373405).

7. The South Asian Energy Corridor: Energy Security & Sustainable Clean Energy:

Edited Book, Ed. A. Shukla and A. Sharma

(**Apple Academic Press, Canada//Taylor & Francis Publishing USA, In Press**).

8. Thermal Energy: Innovations, Applications and Future directions

Edited Book, Ed. A. Shukla, A. Sharma and Karunesh Kant

(**Under Publication with CRC press/Taylor & Francis Publishing USA**).

9. Nanomaterials for Green Energy

Edited Book, Ed. A. K. Haghi and A. Shukla

(**Under Publication with CRC press/Taylor & Francis Publishing USA**).

Schools/ Workshops/ Symposia/ Conferences attended

(a) International

- (i) **International workshop on Nuclei at Extremes of Isospin and Mass** organized By *Institute of Physics, Bhubaneswar* (March 2003).
- (ii) **International Workshop on Supernovae, Gamma Ray Bursts and Pulsars** organized by *Tata Institute of Fundamental Research (TIFR), Mumbai* (January 2004).
- (iii) **Meeting of Nobel Laureates and Students** held at *Lindau, Germany* (June 2004).
- (iv) **VIIth International School on Non-Accelerator Astroparticle Physics** held at *International centre for theoretical physics (ICTP), Trieste, Italy* (July 2004).
- (v) **International Workshop on Nuclear Structure Physics at Extremes** held at *H.P. University, Shimla* (March 2005).
- (vi) **Nuclear Structure near the Limits of Stability** held at *Institute of Nuclear Theory Washington, USA* (October 2005).
- (vii) **RIA Summer School on Physics with Radioactive Ion Beams** organized by *Oak Ridge National Laboratory, Tennessee, USA* (July 2006).
- (viii) **International DAE-BRNS Symposium on Nuclear Physics** held at *BARC Mumbai* (December 2009).
- (ix) **Petrotech conference 2012** held at *Pragati Maidan, New Delhi*.
- (x) **Workshop on Advanced Materials for Future Energy Requirements – 2012** at *Delhi University Delhi* (Nov 2012).
- (xi) **International Symposium on Advances in Biological and Material Sciences**, organized by *University of Lucknow and Humboldt Academy Lucknow Chapter, Lucknow* (July 2014).
- (xii) **International Workshop ‘Futuristic Materials: Characterization, Properties and Applications in Technology’ (FMCPAT-14)** during July 17-22, 2014 organized by *Department of Applied Physics, Faculty of Engineering & Technology, M. J. P. Rohilkhand University, Bareilly, India*.
- (xiii) **International Conference on ‘New Scintillations on Materials Horizon INSMH 2016** during October 21-23, 2016 organized by *Department of Applied Physics, Faculty of Engineering & Technology, M. J. P. Rohilkhand University, Bareilly, India*.
- (xiv) **International Symposium on Advances in Functional and Biological Materials”** organized by *Humboldt Academy & University of Lucknow* held on 28th February, 2019 at Lucknow.
- (xv) **International Conference on “Frontiers in materials from Basic Science to Real time Applications”** held at *CNMS, JAIN University, Bengaluru, India* on 13th – 16th March 2019.
- (xvi) **International Workshop on Nuclear Theory** organized by the *Nuclear Theory Laboratory (NTL)* of the *Institute for Nuclear Research and Nuclear Energy (INRNE)* of the *Bulgarian Academy of Sciences* held at *Sofia, Bulgaria* (23rd- 29 June 2019)

(b) National

- (xvii) **National Level School on Nuclear Science** organized by *Nuclear Science Centre, New Delhi* at *H.P. University,*

Shimla (October 2000).

- (xviii) **XVI SERC (Scientific and Engineering Research Council) School on Theoretical High Energy Physics** at *Harish-Chandra Research Institute, Allahabad (March 2001)*.
- (xix) **National DAE-BRNS Symposium on Nuclear Physics** held at *Saha Institute of Nuclear Physics (SINP), Kolkata (December 2001)*.
- (xx) **SERC School on Nuclear Physics** at *Panjab University, Chandigarh (March 2002)*.
- (xxi) **SERC School on Astrophysics** at *Indian Institute of Technology Kharagpur (June 2002)*.
- (xxii) **School cum workshop on computations in investigations of nuclear high spin states** at *IUC-DAEF, Calcutta Centre (September, 2002)*.
- (xxiii) **National DAE Symposium on High Energy Physics** held at *Jammu University, Jammu (October 2002)*.
- (xxiv) **National DAE-BRNS Symposium on Nuclear Physics** held at *Manonmaniam Sundaranar University, Thirunelveli (December 2002)*.
- (xxv) **National DAE-BRNS Symposium on Nuclear Physics** held at *BARC Mumbai (December 2003)*.
- (xxvi) **National Conference on Neutrinos in Nuclear, Particle and Astrophysics** held at *IIT Kharagpur (February 2004)*.
- (xxvii) **22nd Indian Physical Society Colloquium for Young Physicists (YPC-2004)** held at *Saha Institute of Nuclear Physics (SINP) Kolkata (September 2004)*.
- (xxviii) **XV National DAE Symposium on High Energy Physics** held at *Saha Institute of Nuclear Physics (SINP) Kolkata (November 2004)*.
- (xxix) **Orientation Programme on Computational techniques in nuclear structure physics** held at *Banaras Hindu University, Varanasi (December 2004)*.
- (xxx) **National DAE-BRNS Symposium on Nuclear Physics** held at *Banaras Hindu University, Varanasi (December 2004)*.
- (xxxi) **Regional Conference on Popularization of Science and Technology for Social Development** held at *Institute of Physics, Bhubaneswar (February 2005)*.
- (xxxii) **National workshop on Double Beta Decay** held at *IIT Kharagpur (March 2005)*.
- (xxxiii) **National workshop on Neutrinoless Double Beta Decay** held at *TIFR Mumbai (Oct 2007)*.
- (xxxiv) **Refresher workshop on parallel programming** held at *PRL Ahmedabad (June 2008)*.
- (xxxv) **Conference on Nuclear Energy Program (NEP 2008)** held at *IIT Kanpur (October 2008)*.
- (xxxvi) **Nuclear Physics Meet** held at *Institute of Physics, Bhubaneswar (June 2015)*.
- (xxxvii) **Attended meeting of National Innovator's club** held at *Rashtrapati Bhavan, New Delhi (March 2017)*.

Labs Visited/Colloquium/Invited talk

- (i) **Institute Of Physics Bhubaneswar** during August 27-29, 2003.
- (ii) Following laboratories as **DST awardee under bilateral programme of Department of Science and Technology (DST), India with German Research Foundation (DFG) Germany**.
 - (a) Nuclear Science Centre, New Delhi on 24th June 2004.
 - (b) National Physical Laboratory (NPL) New Delhi on 25th June 2004.
 - (c) Department of Physics, University of Konstanz, Konstanz, Germany on 5th July 2004.
 - (d) Max Planck Institute of Quantum Optics, Garching Germany and Max Planck Institute of Astrophysics, Garching Germany on 6th July 2004.
 - (e) FRM-II, Technical University Munich, Germany and Walter-Schottky-Institute of Semiconductors, Garching on 7th July 2004.
 - (f) Department of Physics, University of Karlsruhe, Karlsruhe, Germany and Institute of Nanotechnology, Karlsruhe, Germany on 8th July 2004.
- (iii) **National Laboratory of Gran Sasso, Italy**, for the collaborative study of Double Beta Decay with DAMA group (August 2005).
- (iv) **Institute of Nuclear Theory, University of Washington, Seattle U. S. A.** (September- November 2005).
- (v) **Indian Institute of Science Education and Research, Kolkata, India** (April 2007) and gave talk on Double

Beta Decay and Nuclear Structure.

- (vi) **Indian Institute of Technology Kanpur, India** (October 2007) and gave talk on Double Beta Decay, Neutrino oscillations and Majorana Mass.
- (vii) **University of Rome Tor Vergata/National Laboratory of Gran Sasso, Italy** (November 2007 to February 2008).
- (viii) **Indian Institute of Technology Guwahati India** (April 2008) and gave talk on Double Beta Decay: Nuclear Structure and Majorana Mass.
- (ix) **Brookhaven National Lab, USA** (May 2008).
- (x) **Colloquium** on Double Beta Decay: Nuclear Structure and Neutrino Mass at **PRL Ahmedabad** (July 2008).
- (xi) **Invited talk on** Positron Double Beta decay : an overview at DAE Symposium 2008 on Nuclear Physics held at IIT Roorkee (Dec 2008).
- (xii) **Lund University, Sweden** for **collaborative research work** in nuclear Physics with Prof. Sven Åberg, Professor and Head of Mathematical Physics, Lund University, Sweden (May-June 2010).
- (xiii) **Invited talk on** Double Beta decay : recent updates at IOP Bhubaneswar (Nov 2011).
- (xiv) **Lund University, Sweden** for **collaborative research work** in nuclear Physics with Prof. Sven Åberg, Professor and Head of Mathematical Physics, Lund University, Sweden (May-June 2012).
- (xv) **Kun Shan University, Taiwan** for **collaborative research work** under Joint Indo-Taiwan Project (Dec 2012).
- (xvi) **Lund University, Sweden** for **collaborative research work** in nuclear Physics with Prof. Sven Åberg, Professor and Head of Mathematical Physics, Lund University, Sweden (June-July 2013).
- (xvii) **Kun Shan University, Taiwan and National Penghu University of Science and Technology, Taiwan** for **collaborative research work** under Joint Indo-Taiwan Project (Dec 2013).
- (xviii) **Lund University, Sweden** for **collaborative research work** in nuclear Physics with Prof. Sven Åberg, Professor and Head of Mathematical Physics, Lund University, Sweden (May-June 2014).
- (xix) Invited talk and chaired a session at **International symposium on Advances in Biological & Material Sciences (ISABMS-2014)** organized by Humboldt Academy & University of Lucknow, on 15th July, 2014 at Lucknow.
- (xx) **Invited talk on Development of Phase Change materials for energy saving applications at MJP University Bareilly** under UGC Refresher program (July 2014).
- (xxi) **Kun Shan University, Taiwan** for **collaborative research work** under Joint Indo-Taiwan Project (Dec 2014).
- (xxii) **Invited talk on Nuclear calculations of Schiff moments for the Hg and Ra nuclei at International conference “Exploring Fundamental Physics using Atomic Systems (EFPAS 2015)” at Physical Research Laboratory Ahmedabad (May, 2015).**
- (xxiii) **Invited talk on Nuclear structure effects in proton capture rates at International conference at Institute of Physics Bhubaneswar, India (June, 2015).**
- (xxiv) **Lund University, Sweden** for **collaborative research work** in nuclear Physics with Prof. Sven Åberg, Professor and Head of Mathematical Physics, Lund University, Sweden (May 2016).
- (xxv) **Jean Alexandre Dieudonne Laboratory, UMR CNRS 7351, of the University of Nice Sophia Antipolis, France,** for **collaborative research work** in on research topics of common interest on mathematical modeling of phase change material thermal behavior, when integrated to low energy buildings components, such as photovoltaic panels or walls with Prof. Henry Biwole Pascal (June 2016).
- (xxvi) Invited talk at **“International Symposium on Advances in Functional and Biological Materials”** organized by Humboldt Academy & University of Lucknow, on 28th February, 2019 at Lucknow.
- (xxvii) Invited talk and chaired a session at **“Frontiers in materials from Basic Science to Real time Applications”** held at CNMS, JAIN University, Bengaluru, India on 13th – 16th March 2019.
- (xxviii) Invited talk at **“International Workshop on Nuclear Theory”** held at and organized by the Nuclear Theory Laboratory (NTL) of the Institute for Nuclear Research and Nuclear Energy of the Bulgarian Academy of Sciences, Bulgaria.
- (xxix) **Lund University, Sweden** for **collaborative research work** in nuclear Physics with Prof. Sven Åberg, Professor and Head of Mathematical Physics, Lund University, Sweden (July 2019).

- (xxx) Invited Talk “**Thermal Energy & Heat Transfer : Physics around us**” at UGC Refresher course for Physics teachers organized by University of Lucknow, Lucknow (February 2020).
- (xxxi) Invited Talk “**Application of Phase Change Materials for thermal regulation of PV Panels and indoor comfort**” and chaired Session in International Symposium on ‘Energy Conservation & Solar Energy’ organized by GD Goenka University jointly with HAREDA Govt of Haryana, NIST, BEE, Ministry of power MNRE, Govt of India and Indo-German Energy Forum New Delhi (15-16 October 2020).

Reviewer for Journals/Books

- Physical Review C (American Physical Society)
- Applied Energy (Elsevier)
- Applied Thermal Engineering (Elsevier)
- Journal of Cleaner Production (Elsevier)
- Solar Energy Materials and Solar Cells (Elsevier)
- Journal of Energy Storage (Elsevier)
- Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor and Francis)
- Heat Transfer (Wiley)
- Solar Energy (Elsevier)
- International Journal of Thermal Sciences (Elsevier)
- Journal of Thermal Science (Springer)
- Journal of Photovoltaics (IEEE)
- International Journal of Green Energy (Taylor and Francis)
- Indian Journal of Physics: Pramana
- Journal of Nuclear Engineering and Technology
- Case Studies in Construction Materials (Elsevier)
- Case Studies in Thermal Engineering (Elsevier)
- Book reviewer for Pearson international publishers, Taylor and Francis, Springer

Member Editorial Board

- Guest editor for special issue on Advanced Energy Materials for Thermal Energy Storage Systems for Journal “Energies” (IF:3.004), In process (to be published in 2022)
- Guest editor for special issue on Thermal Energy Storage materials for Journal “Frontiers in Energy” (IF:4.004), In process (to be published in 2022)

Membership of Professional Societies/groups

- Life Member of *Indian Physics Association*.
- Life Member of *Indian Physical Society*.
- Life Member of *Indian Society of Technical Education*.
- Life Member of *Solar Energy Society of India*.
- Life Member of *Indian Institute of Public Administration*.
- Life Member of *Italian society of Physics*.
- Life Member of *Indian Association of Physics Teachers*.
- Associate member of European Center for Theoretical Studies in Nuclear Physics and Related Areas (ECT) in Trento (Italy).
- Annual Member of International Solar Energy Society.
- Member of selected working group for Center for nuclear theory by Department of Science and Technology,

Govt. of India.

- Member of committee for drafting first science and technology policy for U.P. state govt. (2013).

Administrative experience

A. At University of Lucknow

- 1 Additional Dean Student Welfare, University of Lucknow
- 2 Director, Incubation Cell, University of Lucknow
- 3 Member, Academic Council, University of Lucknow
- 4 Member Hostel Admission Committee, University of Lucknow
- 5 Member, Board of Studies, Department of Physics
- 6 Member, Departmental Research Committee, Department of Physics

B. At RGIPT (Aug 2008- Dec 2021)

- Chairman, Institute Works Committee (May 2021 – November 2021)
- Chief Vigilance officer for institute (Feb 2014 – November 2021)
- Head of Division of Basic Sciences and Humanities (May 2018 – May 2021)
- Chairman RGIPT Alumni Association (Feb 2016 – August 2019)
- Faculty recruitment coordinator (Aug 2008 to March 2009)/Asst. Dean (Faculty Affairs) (April 2009 to November 2015)
- Asst. Dean (R&D) (April 2012 to November 2015)
- Chairman Institute Purchase Committee (October 2014 to April 2016)
- Warden/Chief Warden of RGIPT Hostel (April 2009 to August 2011)
- Served as Member of various committees of the institute - PG Committee, Tender opening committee, Library committee, Exhibition Committee, Orientation Program Committee, Space Committee, Disciplinary Committee, Anti ragging Committee, Purchase Committee, Convocation Committee, Library asset verification, Lab establishment, Corpus fund, Placement Committee and Alumni affairs.