

Professor Naseer Iqbal

Registrar, University of Kashmir Srinagar India, and Professor Department of Physics University of Kashmir Srinagar India 190006.



Visiting Scientist: *Inter University Centre for Astronomy & Astrophysics Pune India.*

INSA Teacher Awardee 2021. The award has been given by Indian National Science Academy New Delhi Govt. of India.

University Administration Experience; +14 yrs.

Former Assignments:

1. Chief Proctor University of Kashmir Srinagar India, 190006.
2. Director North Campus Delina Baramulla University of Kashmir Srinagar.
3. Registrar Islamic University of Science and Technology Awantipora Kashmir.
4. Controller of Examnations Islamic University of Science and Technology Kashmir.

Assistant Professor / Associate Professor /Professor Physics in the Department of Physics University of Kashmir Srinagar w. e. f 25th June, 2003.

As Professor I am in the University of Kashmir w. e. f 6th May , 2016 with a grade pay of Rs / 10, 000 in the pay scale of Rs (37, 400 – 67, 000).

Computer Knowledge:

MS Word, Latex, C – C⁺⁺, Graphics, etc.

Passport Number: V8693487

- **Teaching Experience at PG level:** +20 yrs.
- **Research Experience:** +20 yrs.
- **Education Administration Experience:** +14 yrs.

Have also worked as:

- *Coordinator Science & Society Program* of the University of Kashmir, Srinagar India (2009 - 2011).
- *Proctor / Dy. Chief Proctor* of the University of Kashmir, Srinagar India (2006 - 2014).
- *Chief Proctor* of the University of Kashmir, Srinagar India (2014 - 2019).
- *Department Vigilance Officer* of the University of Kashmir, Srinagar India (2015 - 2019).
- *Chairman Disaster Management Group* University of Kashmir, Srinagar India (2014-2019).
- *Director North Campus Baramulla* University of Kashmir, Srinagar, India. (2019-2020).
- *Registrar Islamic University of Science and Technology* Awantipora Kashmir (Sep 2020 – Feb, 2024).

Education:

1. **Ph. D in Astrophysics** (Large scale structure of Universe), June- 2002. Department of Physics, University of Kashmir Srinagar India.
Title of Thesis: “Scale dependence of two particle correlation function and gravitational galaxy clustering”. The work has been a collaborative work both at the Department of Physics Kashmir University and IUCAA Pune. One of the part of Ph. D published work was done with Professor William C Saslaw of the University of Virginia USA. This paper had invited a great attention of world cosmologists as we had been able to develop a new theory titled as “**Statistical Mechanics of Cosmological Many body problem**”. On the basis of this work I was conferred with Best Paper award / Young scientist award by MAAS India in year 2006.

Thesis supervisor: Professor (Rtd.) Farooq Ahmad Department of Physics University of Kashmir Srinagar, India.

- 2. Pre-Doctoral (M. Phil) degree in Astrophysics (Gravitating Stellar Systems),** December- 1997. Department of Physics, University of Kashmir Srinagar, India.
Title of Thesis. “Relaxation Process in Gravitating Stellar Systems”.

Thesis Supervisor: Professor Farooq Ahmad, Department of Physics University of Kashmir Srinagar, India.

- 3. M. Sc Physics from Kashmir University (Ist Div.)- 1991.**
- 4. B. Sc (Non- Medical / Ist Div.) from Islamia College Srinagar- 1988.**

In addition to these qualifications I have been awarded fellowship / support for visiting abroad on many occasions for research activities / research collaborations and have visited Countries like **China / Egypt / UAE / Singapore / Europe (Italy) / Iran/ Kuwait**. On behalf of Chinese Academy of Sciences CAS, I was awarded fellowship to visit National Astronomical Observatories of China (Beijing) in 2008-2009 to work in their laboratory on Solar flares which I completed successfully. Besides this I have been a regular Associate / Visiting Scientist for Interuniversity Centre for Astronomy & Astrophysics from year 2005 and my Associateship term has always been extended by the executive committee at National level after every three years.

During all these years I have developed collaborations with the following Institutions at National / International level.

- Inter University Centre for Astronomy & Astrophysics IUCAA Pune **India**.
- University of Virginia **USA** / Institute of Astronomy Cambridge **UK**.
- National Research Institute of Astronomy & Geophysics **Cairo Egypt**.
- Department of Physics Kuwait University **Kuwait**.
- Saha Institute of Nuclear Physics SINP **Kolkata India**.
- Centre for Space Physics **Kolkata India**.
- BRNS / Department of Atomic Energy Babha Atomic Research Centre (BARC) Mumbai **India**.

My Experience as Education Administrator.

I have successfully handled the position of **Chief Proctor** of the University of Kashmir from year, September 2014 to May, 2019. During all these years I have handled all the student related problems as well as security related issues of all the stake holders in the Campus.

I have remained successful in resolving all the **sensitive issues** related to security / hostels / examinations of the students / and many other issues for the staff for all these years. During my Proctorship I extended all kinds of **relations/ collaborations** with many **Government Law enforcing agencies** and coordinated many collaborative programmes with **IIPA / J & K Police/ Defence organizations**. I coordinated a student's team visit to Delhi in 2012 as Dy. Proctor under the leadership of Hon'ble Vice Chancellor where I managed all the meetings of student's team with many **Ministries of the Govt. of the India** and this visit later on proved to be very successful.

I have also coordinated many seminars / workshops with **J & K Police Department** on many social issues and have also coordinated programmes like "**Vigilance awareness week**", "**Traffic Awareness week**" / **Road safety measures** and many other similar programs. Besides this I have been one of the coordinators to organize "**Youth Parliament**" twice in the University Campus.

I have been a front runner Officer in facilitating the visits of **His Excellency the President of India, His Excellency the Vice President of India, His Excellency the Governor of Jammu and Kashmir, Ex. Chief Ministers, Ex. Ministers for all these years and have gained a lot of experience in handling any sensitive issue in an academic institution**. In 2014 floods I was the first one who organized a massive relief camp for about 3500 families in the University Campus for about three weeks.

As and when any competitive level examinations like **IIT / NEET / KAS / IAS / NET / SET** were conducted I have been actively engaged and always did the best to the entire satisfaction of the University authorities. I have also made many examination inspections to various Degree Colleges of the Valley for all these years.

My Experience as Professor / Researcher.

I have taught many courses of M. Sc Physics for the last **20 years** and have simultaneously carried out my research on many topics of interest of international standard. As on now my five **Ph D students and eight M. Phil students** have been awarded their Ph. D / M. Phil degrees under my supervision and have successfully been placed as **Assistant Professors** in J&K Hr, Edu. Department. Besides this two Ph. D students have also completed their **Post Docs** of two years where I have remained as one of their active collaborators. I have worked on many research projects and have completed them very satisfactorily. I have got the projects funded from many premier funding agencies of the Country like **DST / ISRO / DAE** and have been able to fund my research students for their **JRF 's / SRF's**.

I have organized many National level / International level conferences in the University of Kashmir. The massive conference that I organized successfully was the participation of **375 Astrophysicists** from Country / few from Japan in May, 2016 for six days. This meeting has been one of the rememberable events of the **Astronomical Society of India**.

The first ever **Gravitational Wave** detection news was announced here in the University auditorium on the first day of conference in presence of His Excellency the **Governor of Jammu & Kashmir** and the Hon'ble **Chairman of Indian Space Research Organization ISRO** Department of Space, Govt. of India.

Academic Positions in the University of Kashmir.

Assistant Professor Physics / Sr. Assistant Professor Physics / Associate Professor Physics/ Professor Physics in the Department of Physics University of Kashmir Srinagar w e f from 24th June 2003.

As Professor I am in the University of Kashmir w e f 6th May, 2016.

Administrative Positions in the University of Kashmir.

In academic administration I started to work as Deputy Proctor in the University from June, 2006 and worked hard in this assignment and finally became the Chief Proctor of the University in September 2014 the position which I continued up to end May 2019. During all these years I always tried my best to handle and resolve all the sensitive issues of the campus in the following domain:

- Hostel / security related issues of students.
- Monitoring and acting accordingly on all the issues in the University.
- Acting as a bridge between the State Govt. elsewhere now the *UT of J and K* and the University authorities.
- Screening first and then permitting the programs of National Importance to be organized in the University campus.

Field of Research:

1. Large scale structure of Universe.
2. Archaeo-astronomy.
3. X-Ray Astronomy / High Energy Astrophysics.
4. Physics Education.

Affiliations and honors’:

1. Life Member of Astronomical Society of India (ASI) No. 1006.
2. Life Member of Indian Physics Association (IPA) No. LM / 11689.
3. Life Member of Indian Institute of Public Administration, New Delhi No. L-9795. From Feb, 2020 I have been nominated as executive member of the (J&K) chapter of IAP.
4. Life Member of Amnesty International (Child Education) No. 1413.
5. Coordinator for International Year of Physics 2005.
6. Coordinator for Astronomy Olympiad Program for J and K.
7. Member for Board of studies in M. Sc Physics Kashmir University Srinagar.
8. Member for Special board of studies in M. Sc Astrophysics Pondicherry University.
9. Member for Special board of studies in M. Sc Physics Central University of Kashmir.
10. Advisor for Science Teacher Association STA J and K from year 2013.

Fellowship and awards:

1. Visiting Associateship of IUCAA Pune India from August, -2005 (continuing).
2. Fellowship awarded on behalf of Chinese Academy of Sciences (CAS) China in December - January (2007 – 2008).
3. Received best paper award in Physical sciences on behalf of MAAS India on 4th Feb. -2006.
4. Research visits to the University of Kuwait for 02 weeks in February 2014 and in February 2016.

5. Awarded “INSA Teacher Award 2021” by Indian National Science Academy INSA Govt. of India, New Delhi.
6. Best Science Communicator Award-2022 by J and K Science Communicators Network.

**Conferences / Seminars /Workshops / Any other activity Organized:
Have organized the following conferences.**

1. Convener for holding 3-day Conference on “*High Energy Emission from AGN*” from 7th October 2013 to 9th October 2013 in the Department of Physics, University of Kashmir in Collaboration with BARC Mumbai and ISRO, Govt of India.
2. Coordinator for holding 3-day Workshop on “*Stellar Astrophysics*” from 23rd October 2011 to 26th October 2011 in the Department of Physics KU in collaboration with IUCAA Pune.
3. Coordinated “*Degree College Principles meet*” on 9th August – 2009 for starting “Science- Society” clubs in every college of the Valley.
4. Coordinator for holding two-day workshop on “*Telescope Making*” for the celebration of IYA (International Year of Astronomy) 2009 between 7th Oct. – 8th Oct. – 2009.
5. Coordinator for holding “*10-day Science Exhibition*” in the University of Kashmir in Collaboration with Ministry of Earth Sciences GOI, New Delhi between 12th August – 21st August 2009.
6. Organizing Secretary for conducting two-day national level conference on “*Recent Developments and Challenges in Earthquake Predictions*” on 5th and 6th August, -2008.
7. Coordinator for conducting “*NEST Examination*” in collaboration with Mumbai University in June 2008.
8. Coordinator for conducting “*Astronomy Olympiad*”/ “*physics Olympiad*” for the students of Kashmir Valley (India).
9. Appointed as liaison officer for “*HETL (Higher Education Teaching & Learning Associations)*” for Physics in India by HETL President, St. John’s University, New York.
10. Co-Chair for Astronomical Society Meeting ASI, 2016 in the Department of Physics, University of Kashmir, Srinagar from 9th May, - 13th May, 2016. In this meeting about 375 participants both within the Country and many foreigners attended these four days meeting.
11. Convener for two days’ workshop on “Astronomy and Astrophysics” at Department of Physics University of Kashmir Srinagar on 18th and 19th Dec, - 2021.

12. Convener for three days international workshop on “VHE data analysis using open-source packages” at Department of Physics University of Kashmir on 1st – 3rd February, 2022.
13. Convener for two days’ workshop on “Himaliyan meet of Astronomers” organized by IUST / KU in collaboration with IUCAA Pune on 25th and 26th September 2023 at IUST Awantipora Kashmir.

Courses taught at M Sc Physics level:

1. Classical Mechanics (Phy-102)
2. Statistical Mechanics (Phy-202)
3. Astrophysics (Phy-304)
4. Numerical Methods (Phy-301)
5. Atmospheric Physics (Phy- 403)
6. Biophysics (phy-141100A)
7. Introduction to Astronomy (Phy-15410GE)

Participation in international conferences / workshops / schools:

1. Presented paper in an international conference on statistical mechanics titled “*Entropy changes in cosmological many body problem*” on 4th July, -2004 in IISC Bangalore (**INDIA**).
2. Presented paper in an international conference on physics education titled “*Popularization of Astronomy*” on 22th August 2005 in Delhi University (**INDIA**).
3. Presented paper on geochemical precursors titled “*Radon Monitoring and seismotectonic facility at Tatapani hot spring Jammu*” on 10th July, -2006 at SINP Kolkata (**INDIA**).
4. Attended international conference on Solar flares on 8th - 10th December 2007 in Beijing (**CHINA**).
5. Presented paper in an international conference on Astronomy and Geophysics titled “*Prehistoric meteor showers*” in Cairo (**EGYPT**) on 21st Oct. -2008.
6. Presented paper in an international conference in 4th Saudi Science conference titled “*Thermodynamical model of universe*” on 21st March 2010 in Taibah University Madina Munawara (**SAUDI-ARABIA**).
7. Presented paper in an international conference on Earthquake Precursors titled “*Radon monitoring data (2006 – 2009) for earthquake predictions*” in Agra (**INDIA**) in October 2010.
8. Delivered a talk on “*Galaxy clusters*” in an Expanding Universe” on 26th January 2012 at National University of Singapore (**SINGAPORE**).
9. Attended three-day International Symposium on “*ASTROD-5*” (11th - 13th July 2012) held at Raman Research Institute RRI Bangalore (**INDIA**). Chaired one of the sessions on 13th July 2012 for ASTROD-5.

10. Participated in workshop on “Recent Developments in Astronuclear and Astroparticle physics” (19th – 23rd November 2012) at Abdus Salam International Center for Theoretical Physics (ICTP) (**Trieste ITALY**).
11. Participated in an International conference on oriental Astronomy-(ICOA-8) in (**CHINA**) from 26th March – 29th March 2014 and delivered an oral talk on “Some Astronomical Events Recorded in Early Periods”.
12. Participated in an International conference on Dynamics of galaxies in (**HYDERABAD**) in December, 2016 and delivered a talk on the subject.
13. Participated in an International School on LSS of Universe in IUCAA (**Pune INDIA**) for 13 days w e f 1st February, 2016.
14. Visited Department of Physics (**KUWAIT**) for a research collaboration for two weeks in February, 2014 and then again in February, 2016 and delivered three talks. Had received one more invitation for April 2020 but had to cancel because of COVID-19.
15. Attended International school of Astronomers at IPM (**Tehran / IRAN**) for three weeks w e f 20th August, 2016.
16. Attended International Conference on Oriental Astronomy (ICOA-9) at IISER Pune (**INDIA**) from 14th Nov to 18th Nov, and delivered a talk on “Archaeoastronomy in Kashmir” (**INDIA**).
17. Participated in Conference titled “Growth points in Physics” in October, 2017 and delivered a talk at the Department of Physics, University of Kashmir (**INDIA**).
18. Participated in J and K Science Congress held at the University of Kashmir, Srinagar (2- 4th March), 2018 (**INDIA**).
19. Participated in International conference in Delhi University on Physics, Technology and Society (17th Jan, - 19th Jan, -2019) and delivered a talk (**INDIA**).
20. Participated in National Conference in NISER, Bhuaneswar, MP (**INDIA**) on 14, 15, 16th Nov, 2019 and delivered a talk.
21. Participated and delivered talk titled “Cosmological Phase Transitions in an Expanding Universe” at IAU Regional meeting MEARIM 2023: Sixth Middle East and Africa Regional meeting Feb, 13-16, 2023 at NRIAG Cairo (**EGYPT**).

National level conferences / seminars / workshops:

1. Presented a paper on “Issues at the Interface of science-technology and society” in Science Congress at University of Kashmir Srinagar July 2006.
2. Presented a paper on “Archaeoastronomy in Indian context” at IIT Mumbai and HBCSE – TIFR Mumbai in July 2007 and March 2008.
3. Presented a paper on “Terrestrial impacts and their Astronomical significance” in Science Congress at University of Kashmir December 2008.
4. Presented a paper on “Kepler’s Supernova” in Archeoastronomy meet Mumbai University February 2009.
5. Attended three-day science congress from 17th – 19th September 2012, at University of Kashmir Srinagar.

6. Attended three-day J & K science congress from 1st September to 3rd September, 2013, at University of Kashmir, Srinagar.
7. Attended four days' workshop on Astronomical techniques from 24th September to 27th September, 2013, at University of Kashmir, Srinagar.
8. Attended three days National Conference on High Energy Emission from Active Galactic Nuclei (AGN) from 7th Oct to 9th Oct, 2013, at University of Kashmir, Srinagar.

M. Sc projects:

1. Star formation in the universe.
2. Various disturbances produced on the photosphere of sun.
3. An introduction to Black hole astrophysics.
4. Radon monitoring precursors in earthquake predictions.
5. Galaxies in the Universe.
6. Dosimetry in medical physics.
7. An overview of X ray astronomy.
8. Gravitational waves (Ground based and Space based detectors).
9. Exciting Applications of Statistical Physics.
10. Supernova Remnants and their fate.
11. Astrophysical Processes in Galaxy clusters.
12. Entropy of Universe.
13. Radiation Safety Measures in SKIMS / SMHS Hospitals in Srinagar.
14. Properties of Rich / Poor Galaxy Clusters.
15. Phase Transitions in Cosmological Systems.
16. Gravitational waves and their detection.

Placement of my Research students:

Ten (10) of my research scholars have qualified PSC examination for college lectureship / Hr-Sec Lectureship. Two of my Ph D students have now completed Post Doc at IUCAA Pune.

Invited Lectures:

1. Lecture on Statistical Mechanics of Cosmological Many body problem on 13th December 2007 at NAOC Beijing China.
2. Lecture on Archeoastronomy and its Importance at IUCAA Pune on 18th March, 2008.
3. Lecture on Galaxies distribution (1st and 2nd) at Punjab University Chandigarh on 21st and 22nd Nov. -2009.
4. Lecture on Astronomy Past, Present and Future at ASC Kashmir University January 1st -2010.

5. Lecture on Galaxies in the Universe at Inspiration camp held at National Institute of Technology NIT Srinagar on 21st May 2012.
6. Lecture on Statistical Mechanics and Cosmology at CTP (Center for theoretical Physics), Jamia Milia Islamia JMI University Delhi on 26th October 2012.
7. Lecture on “Dynamical Parameters in Cosmological Many Body Problem: A Statistical Mechanical Approach at Department of Physics, Kuwait University, Kuwait on 17th February 2014.
8. Lecture on “Entropy of Galaxy Clusters” at IUCAA Pune on 10th February, 2016.
9. Lecture on “LSS Of Universe” at Department of Physics, Kuwait University, Kuwait on 17th February, 2016.
10. Four lectures on various themes at Academic Staff College, University of Kashmir in years 2014, 2015 and 2017.
11. Lecture on “Growth points in Astronomy” delivered at the Department of Physics in 3 days Workshop.
12. Lecture on Gravitational Waves delivered at the +2 Physics teachers workshop held at SIE, Srinagar on 13th January, 2018.
13. Lecture on “Astronomy and its relations with society” on 19th January, 2019 at Delhi University.
14. Lecture on “Shape your career for +2 students” on 24th January, 2019.
15. Two Lectures on “Disaster Management and how to save our lives” delivered at HRD Center, University of Kashmir on 5th February, 2019.
16. Two Lectures on “A window of Universe” on 27th Dec, -2019 at GSBS University, Jammu, India.
17. Two Lectures on “Origin of Universe” delivered at HRD Center, University of Kashmir on 27th March, -2021.
18. Two Lectures on “Universe from an Astronomical Perspective” delivered at HRD Center, University of Kashmir on 27th August, -2021.
19. Lecture on “Education system for creation of scientific vision” delivered at Central University of Kashmir on 18th September, 2021 in National Science Urdu Congress” meeting.
20. Lecture on “Foundations of Radiation Science” delivered at HRD Center, University of Kashmir on 16th October, -2021.
21. Lecture on “An open window of the Universe” delivered in two days’ workshop on Astronomy and Astrophysics on 19th December 2021.
22. Lecture on “Cosmology an Inspiring science” delivered at HRD Center, University of Kashmir on 4th February, -2022.
23. Lecture on “Astronomy: Past / Present and Future” delivered at HRD Center, University of Kashmir on 3rd March, -2022.
24. Lecture on “Research tools in Astronomy and Astrophysics” in Research Methodology workshop delivered at Govt. Women’s college MA Road Cluster University Srinagar on 25th Oct, -2022.

25. Lecture on “Universe at Multi-wavelength” in Refresher course in science delivered at HRD Center, University of Kashmir on 12th December, -2022.
26. Lecture on “Radiation Physics” in Orientation programme of College and University Teachers delivered at HRD Center, University of Kashmir on 4th February, -2023.
27. Lecture on “Teaching styles in Physics” at SIE J and K Education Department Srinagar on 6th February, -2023.
28. Lecture on “Astronomy Past, Present and Future” in orientation program conducted by HRD Center, University of Kashmir on 21st July, 2023.
29. Invited Lecture on “Archaeoastronomy, a novel study for identifying earlier astronomical events / Archaeoastronomy in an International context” at Department of Physics, Faculty of science, National University of Singapore on 24th July, 2023.
30. Invited Lecture on “Multiwavelength Universe: An overview of X ray and Gamma ray Astronomy” at Department of Physics, Faculty of science, National University of Singapore on 26th July, 2023.
31. Invited Lecture on “Universe at Multiwavelength” at NIT Srinagar on 8th November 2023.
32. Invited Lecture on “Indigenous Technologies for Viksit Bharat” at North Campus Kashmir University Baramulla on 28th February, 2024.
33. Invited Lecture on “Administrative skills” at HRDC Center University of Kashmir on 29th February, 2024.

UGC Lectures:

Lectures delivered in **UGC Special lecture series** conducted by EMMRC University of Kashmir in year 2008 and 2009.

Have made 10 modules of Astrophysics on **e-pathshalla programme** for **MHRD** in year 2017 -2018, Govt. of India.

Papers Published:

International: (34)

National: (02)

1. Statistical Mechanics of Cosmological Many body systems, Farooq Ahmad, W C Saslaw and *Naseer Iqbal* (**Ap. J USA**) 571, 576 (**2002**). [Impact factor: 6].

2. Gravitational Clustering of Galaxies in an Expanding universe. *Naseer Iqbal*, Farooq Ahmad and M S Khan. Journal of Astronomy and Astrophysics (**JAA Springer**) 27, 373 (**2006**).
3. Radon times series measurement facility for Seismotectonic observations at Tatapani Jammu. S A Mir, *Naseer Iqbal*, Waseem Bari, N K Das, R K Bhandari, Debasis Gosh, P Sen and Bikash Sinha. Geochemical Precursors for Earthquake predictions. Macmillan advanced series (**2007**). 171- 176. ISBN 0230- 63262 - 9.
4. Issues at the interface of science, Technology and Society, *Naseer Iqbal*, Science for better tomorrow (**2006**), 561-564.
5. Stability of Hickson groups of galaxies, Ibrahim Selium and *Naseer Iqbal*. Turkish Journal of Physics **Turkish** (**2008**).
6. The Prehistoric Meteor shower recorded on a Palaeolithic rock, *Naseer Iqbal*, M N Vahia, Ajaz Ahmad and Tabasum Masood. NRIAG Journal of Astronomy and Astrophysics (**Egypt**), 38, 469-475 (**2008**).
7. Critical Phenomena and the gravitational clustering, M S Khan, *Naseer Iqbal* and Farooq Ahmad. NRIAG Journal of Astronomy and Astrophysics (**Egypt**), 39, 577-494 (**2008**).
8. Some Early Astronomical Sites in the Kashmir Region, *Naseer Iqbal*, M N Vahia, Tabasum Masood and Ajaz Ahmad. Journal of Astronomical History and Heritage JAH2 (Australia). 12 (1), 61-65 (**2009**).
9. Thermodynamic fluctuation theory and Gravitational Clustering of galaxies, M S Khan, *Naseer Iqbal* and Farooq Ahmad. Electronic Journal of theoretical Physics EJTP, 21, 139-148 (**2009**).
10. Studies of VLF Radio Waves for Sudden Ionospheric Disturbances (SID) in Kashmir Region. M R Wani, *Naseer Iqbal* and S. Sasmal in “Propagation Effects of Very Low Frequency Radio Waves” **American Institute of Physics**, ISBN 978-0-7354-0841-8, ISSN 0094-243X, (**2010**).
11. Entropy Changes in Clustering of Galaxies in an Expanding Universe, *Naseer Iqbal*, M S Khan and Tabasum Masood, Journal of Natural Science USA. Vol. 3, No. 1, 65-68 (2011). Febuary (**2011**).
12. Long range gas-geochemical anomalies of a remote earthquake recorded simultaneously at distant monitoring stations in India. HIROK CHAUDHURI, WASEEM BARI, **NASEER IQBAL**, RAKESH K. BHANDARI, DEBASIS GHOSE, PRASANTA SEN and BIKASH SINHA. Geochemical Journal, Vol. 45, pp. 137 to 156, (**2011**). [Impact factor: 0.78]
13. Study of impact materials of Akhnoor Meteor Crater in Jammu and Kashmir (India), *Naseer Iqbal*, Ajaz Ahmad, Tabasum Masood and M N Vahia, Journal of Natural Science USA. Vol. 3, No. 6, 426-429 (**2011**).
14. Indian record for Kepler’s supernova: Evidence from Kashmir Valley. Astron. Nachr. / AN 332, No. 6, 655 – 657 (**2011**) / DOI 10.1002/asna.201011555 ,A. Sule, A. Bandey, M. Vahia, *N. Iqbal*, and M. Tabasum.

15. Thermodynamical Model of the Universe. Electronic Journal of theoretical physics (EJTP), No. 26, 283 – 290 (2012). *Naseer Iqbal* et. al (2012).
16. Correlation function for extended mass galaxy clusters. *Naseer Iqbal*, Naveel Ahmad, Mubashir Hamid and Tabasum Masood. MNRAS Letters, Vol. No. 424, L 31 – L33 (2012) [Impact Factor: 4. 88].
17. VLF Signals in summer and winter in the Indian sub-continent using Multi-station campaigns. Sandip Chakarborty , --- *N Iqbal*. Indian Journal of Physics, 86(5), 323 – 334, May (2012). [Impact factor: 0.226]
18. The Peculiar Velocity and Temperature profile of galaxy clusters, Tabasum Masood and *Naseer Iqbal*. arXiv: 1312. 6781v1 [Astro-ph. CO], December (2013), RAA Journal.
19. Gravitational Waves: Present Status and Future Prospectus, *Naseer Iqbal* and Showkat Monga, Natural Science March Issue, 2014 Published Online March 2014 in SciRes. <http://dx.Doi.org/10.4236/ns.2014.65033>. www.scirp.org/journal/ns [Peer-reviewed journal]
20. Peculiar Motions of galaxy clusters: Correlation Function Approach, *Naseer Iqbal*, Tabasum Masood, Mubashir Hamid, Naveel Wani and Bari Maqbool, Astrophysics and Space Science, Vol: 353, Issue 2, 621-624, 2014.
21. Search of Astrophysical results with LIGO from the science runs S1 to S5, Showkat Monga, *Naseer Iqbal* and Zahir A Shah, Journal of Advances in Physics, Vol 6, No. 3, 1263 – 1268, December 2014.
22. The Entropy of Cosmological Many Body Problem and its Behavior, *Naseer Iqbal*, Tabasum Masood and Nasser Demir (Astronomische Nachrichten Germany December), 2015.
23. The effect of X ray irradiation on the time dependent behavior of accretion discs with stochastic perturbations, Bari Maqbool, Ranjeev Misra, *Naseer Iqbal* and Naveel Ahmad. MNRAS, 448, 3242 (2015).
24. A model for the energy dependent time-lag and rms of the heartbeat oscillations in GRS 1915+105, Mubashir Hamid, Ranjeev Misra, Mayunk Pahari, *Naseer Iqbal* and Naveel Ahmad. MNRAS, 457, 2999(2016).
25. Clues on High Energy Emission Mechanism from Blazer 3C45.3 during 2015 August flare, Zahir A Shah, Sunder Sayanathan and *Naseer Iqbal*. MNRAS, July, 2017.
26. Modelling the Response of a standard accretion disk to stochastic viscous fluctuations, Naveel A Wani, Ranjeev Misra, *Naseer Iqbal*, Bari Maqbool and Mubashir Hamid. New Astronomy, 58, 84 – 89 (arXiv: 1708.05143), (2017).
27. Log-normal flux distribution of bright Fermi blazars. Z. Shah, N. Mankuzhiyil, A. Sinha, R. Misra³, S. Sayanathan and *Naseer Iqbal*. RAA, July, 2018.
28. Study on Temporal and Spectral behavior of 3C279 during 2018 January flare , Zahir Shah, V. Jithesh¹, S. Sahayanathan³, Ranjeev Misra and *Naseer Iqbal*, MNRAS January (2019). ArXiv:1901. 0418V1 [astro-ph. HE] 14th January, 2019.

- 29.** Thermodynamics and Phase Transitions in galaxy clustering, Nasser Demir and *Naseer Iqbal*, DOI: 10.102/asna.201913462. *Astronomische Nachrichten/AN*.2019; 340: 449-458 (**2019**).
- 30.** "Unveiling the broadband spectral and temporal properties of PKS 0903-57 during its brightest flare" Zahir A Shah, V.Jitesh, Sahayanathan S, *Naseer Iqbal* Published on 22nd March (**2021**). <https://doi.org/10.1093/mnras/stab834>.
- 31.** "Model-independent redshift estimation of BL Lac objects through very high energy observations" Zahoor Malik, Sunder Sahayanathan, Zahir Shah, *Naseer Iqbal*, Aaqib Manzoor, Nilay Bhat, *MNRAS*, Vol. 511, Issue 1, 994-1003, March (**2022**). <https://doi.org/10.1093/mnras/stab3173>.
- 32.** "Multi- wavelength study of Blazar 4C+01.02 during its long term flaring activity" Zahoor Malik, Sunder Sayanathan, Zahir Shah, *Naseer Iqbal* and Aaqib Manzoor, *MNRAS*, Vol. 514, Pages 4259 4269 (**2022**), <https://doi.org/10.1093/mnras/stac1616>.
- 33.** "Very High Energy Flat Spectral Radio Quasar Candidates" Zahoor Malik, Sunder Sayanathan, Zahir Shah, *Naseer Iqbal* and Aaqib Manzoor, *MNRAS*, Vol. 515, Pages 4505- 4513 (**2022**), <https://doi.org/10.1093/mnras/stac2085>.
- 34.** "Morphology, color-magnitude and scaling relations of galaxies in Abell 426", Sheraz Ah Khanday, Kanak Saha, *Naseer Iqbal*, Suraj Diwar and Isha Pahwa, *MNRAS*, August (**2022**), arXiv:2207.08729 [astro-ph.GA].
- 35.** "Statistical description of galaxy clusters in Finzi model of gravity", Abdul W Khanday, Sudahker Upadhyay, *Naseer Iqbal* and Prince A Ganaie, *Physica Scripta*, Vol 98, No. 6, May (2023). DOI 10.1088/1402-4896/acd5cd.
- 36.** "Understanding the Very High Energy γ -ray excess in nearby blazars using leptonic model" Aqib Manzoor, Sunder S, Zahir Shah, Subir Batacharaya, *Naseer Iqbal* and Zahoor Ahmad Malik. Accepted for *MNRAS* August, 2023.

Research topics of M. Phil / Ph D scholars:

- 1.** A Preface to the study of clustering of galaxies in an expanding universe (Tabasum Masood M. Phil awarded in year 2007).
- 2.** Probing of LSS of universe on the basis of statistical mechanics (Fayaz Ahmad M Phill awarded in year 2007).
- 3.** Astronomical significance of terrestrial impacts and their post effects (Ajaz Ahmad M Phill awarded in year December 2011)
- 4.** Accretion Disk process in LM X-Ray binary stars (Bari Maqbool M Phil awarded in year December 2012).
- 5.** Spectral properties of Accretion Disk X-ray irradiated Binaries (Mubashir Hamid M Phil awarded in December 2012).
- 6.** Correlation functions in clustering of galaxies (Naveel Ahmad M phil awarded in January 2013).

7. Gravitational waves and their recent status (Showkat Ahmad Moonga M Phill awarded in December, 2015).
8. The Role of peculiar velocity in Cosmological many body problem in an expanding universe (Tabasum Masood Ph D Awarded in November 2016)
9. Understanding High Energy Gamma rays from AGN's (Zahir Ahmad M Phil awarded in November 2014. Ph D awarded on 22nd Dec, 2018).
10. Study of correlated X-Ray and UV Emission from X Ray Binaries (Bari Maqbool Ph D Awarded in April, 2017)
11. Geometry of Accretion flow around compact object systems (Naveel Ahmad Ph D Awarded in July, 2018)
12. Spectral time evolution and disk variability of Black hole X Ray Binaries (Mubashir Hamid Ph D awarded in Oct, 2017).
13. Properties of Rich and Poor Galaxy Clusters in an Expanding Universe (Ph D topic of Sheraz Ahmad Khanday).
14. Blazer High Energy Astrophysics (Ph D topic of Athar Dar).

BOOKS PUBLISHED:

1. Recent Advances in Gravitational Wave Astronomy by **Naseer Iqbal** and Showkat Moonga. LAP, Lambert Academic Publishing, Germany, 978-3-659-58146-4, 2014.
2. Ancient Astronomical Culture of Kashmir Valley (India) by **Naseer Iqbal** and Tabasum Masood . Woven Words Publishers OPC Pvt, Ltd, Hyderabad India. ISBN 13:978-93-88762-10-6, 2019.

RESEARCH PROJECTS:

1. *Monitoring of Geochemical precursory signals for seismic events w e f August -2005. DST Govt. of India.*

This Project was funded by DST, Govt. of India in year 2005 for three years. In year 2008 the project was extended for two more years i.e. for years 2009 and 2010. Later the project was sanctioned once again by Ministry of Earth sciences Govt. of India from Dec. -2010 for next three years. **Dr Waseem Bari and Dr Naseer Iqbal** from Department of Physics were both the Co-Investigators of the project. Prof. Bikash Sinha of SINP Kolkata was the main Principal Investigator of the project. Prof Prasenta Sen of SINP Kolkata was also one of the Co-Principal Investigator. The total funding of the project was about **1.07 crores** out of which about 25% of the amount was sent to our university for expenditure. The project got completed in year 2012 with the completion of one research laboratory at Tatapani Rajouri Jammu.

2. *Archaeoastronomy in Indian context w e f December 2007.*

Jamshetji Tata Trust Mumbai funding agency.

This was also a collaborative project between Department of Astronomy and Astrophysics TIFR Mumbai and the Department of Physics University of Kashmir Srinagar. **Dr Naseer Iqbal** was the coordinator of this project from University of Kashmir Srinagar. The project got sanctioned by Jeamshtetji Tata Trust Mumbai in year 2007 and got extended in year 2010. The total cost of the project all over the Country was about **(30) thirty lakhs**. The project got completed in year 2012 with good research findings in which we have been able to say that in earlier times like that of Paleolithic period & Neolithic period the civilization had a good intellectual growth as our studies have shown that for most of the times the people were good sky grazers.

3. *Study of correlated Ultra-violet and X-ray emission from X-ray Binaries. Indian Space Research organization (ISRO) funding agency India.*

This project was sanctioned to me by Indian Space Research Organization (ISRO) for three years on June 14, 2011 and was then extended by one year more. The total funding in the project was Rs/ 24 lakhs (Twenty-four lakhs only). Project got completed in Year 2016 with good research findings which serve as a basic model for understanding the x ray binaries by using AstroSat launched by ISRO before couple of years.

4. *Effect of Very High Energy Emission (VHE) in Universe. Indian Space Research organization (ISRO) funding agency India.*

This project has been sanctioned to by Indian Space Research Organization (ISRO) for three years in September 2014. The total funding in the project was Rs/ 14. 62 lakhs (Fourteen lakhs, and sixty-two thousand only). This Project got completed in year 2017 with good research findings published in good space-based journals.

5. *Entropy and Phase Diagram of Universe. Research Sector Kuwait University.*

This project was sanctioned by the Research Sector, Kuwait in April, 2015 for a year and was then extended for next six months. The total funding in the project was 2500 KD. Dr Naseer Iqbal of Kashmir University and Dr Nasser Demir of Kuwait University were two Investigators of the project. This project got completed in year 2017 with the publication of good research papers in which we have first time predicted the cosmological phase transitions taking place in expanding universe. We published the 2nd part of this work in June, 2019.

6. *Multi-wavelength studies of Rich and Poor galaxy clusters. Indian Space Research organization (ISRO) funding agency India.*

This project has been sanctioned by ISRO RESPOND in March, 2018. The total funding is around Rs/ 16 lakhs and will be completed by March, 2021. This year we are expecting the first breakthrough of our results.

- 7. *Estimation of Diffuse Extra Galactic Background Light through VHE Gamma ray Observation of Blazars.***
Board of Research in Nuclear Science BRNS / Department of Atomic Energy Govt. of India.

This project has been sanctioned by Department of Atomic Energy (DAE), BRNS, Govt. of India in September 2019. The total funding is Rs/33,60, 700.00 (Thirty-three lakhs, sixty thousand and seven hundred). The project was for three years with two JRF's. The project got recently completed with five publications in MNRAS.

- 8. *Unveiling High Energy Emission Properties of Blazars using AstroSat observations.***

This project has recently been sanctioned by Indian Space Research Organization ISRO under their AO program. The project has been sanctioned in January 2021 with one JRF fellow. The total funding is around 14 lakhs and is for three years.

SERC Schools / Orientation courses attended:

- 1.** Attended Scientific Engineering Research Council (SERC) School on “Probing of electromagnetic radiations in the upper atmosphere” conducted by Department of Science and Technology, Govt. of India at PRL Ahmadabad in April- May, 1998.
- 2.** Attended Scientific Engineering Research Council (SERC) School on “Statistical Physics” February 2006 conducted by Department of Science and Technology, Govt. of India at TIFR Mumbai.
- 3.** Attended General Orientation course conducted by University of Rajasthan Jaipur in Dec. -2006.

References:

- ***Professor Talat Ahmad*** (Former Vice Chancellor of Kashmir University Srinagar).

- *Professor Mehraj ud Din Mir (Former Vice Chancellor CU Kashmir).*
- *Professor Somak Roy Chaudhuri (Former Director IUCAA Pune).*
- *Professor K. I Andrabi (Former Vice Chancellor of Kashmir University).*
- *Professor Ajit Kembhavi (Former Director, IUCAA Pune).*
- *Professor Shakeel Ahmad Romshoo (VC IUST Kashmir).*
- *Professor M N Vahia (Former Senior Professor at TIFR Mumbai).*
- *Professor Ranjeev Misra (IUCAA Pune).*
- *Professor Sandip Chakarborty (Indian center for space physics Kolkata).*

Research Collaborations:

1. Professor M N Vahia (TIFR Mumbai, India).
2. Professor Ranjeev Misra (IUCAA Pune, India).
3. Dr Nasser Demir (Kuwait University Kuwait).
4. Dr Sunder Sayanathan (BARC Mumbai).
5. Dr Kanak Saha (IUCAA Pune).



(Dr. Naseer Iqbal)