




Faculty Details proforma for DU Web-site

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Title	Prof./Dr./Mr.	First Name	Ajay	Last Name	Kumar	Photograph
Designation		Professor, Department of Mathematics				
Address		Department of Mathematics, University of Delhi, Delhi-110007				
Phone No	Office	011-27666227, 011-27666658				
	Residence	011-27014415				
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Email		akumar@maths.du.ac.in , ak7028581@gmail.com				
Web-Page		Homepage https://sites.google.com/view/ajay-kumar/				
Educational Qualifications						
Degree	Institution				Year	
Ph.D.	University of Delhi				1980	
M.Phil. / M.Tech.						
PG	University of Delhi				1976	
UG	University of Delhi				1974	
Any other qualification	Proficiency in German and French Languages					
Career Profile						
1.	Fellow of National Academy of Sciences India.					
2.	Dean Faculty of Mathematical Sciences, Dec.21, 2012-Aug.2, 2013					
3.	Head, Department of Mathematics, Dec.21, 2012- Dec.20, 2015.					
4.	Dean Research, University of Delhi, Jan. 24, 2011- July 3, 2012					
5.	Programme Coordinator/Director, Cluster Innovation Centre, University of Delhi, Sept. 2011- Jan. 2012.					
6.	Chairman, Board of Research Studies Mathematical Sciences Dean Research (Physical and Mathematical Sciences), University of Delhi , July 4, 2012- Nov.25, 2016.					
7.	, University of Delhi. Dec.21, 2012-Aug.2, 2013.					
7.	Professor, Department of Mathematics, University of Delhi, Delhi, India since Sept., 2004.					
8.	Postdoctoral fellow / Guest Professor in several Universities in Germany, France, U.K.					
9.	Reader, Department of Mathematics, Rajdhani College (University of Delhi) from 1987-2004.					

10. Lecturer, Department of Mathematics, Rajdhani College (University of Delhi) from 1977-1987.

Administrative Assignments

8. Dean Faculty of Mathematical Sciences, Dec.21, 2012-Aug.2, 2013
9. Head, Department of Mathematics, Dec.21, 2012- Dec.20, 2015.
10. Dean Research, University of Delhi, Jan. 24, 2011- July 3, 2012
11. Programme Coordinator/Director, Cluster Innovation Centre, University of Delhi, Sept. 2011- Jan. 2012.
12. Chairman, Board of Research Studies Mathematical Sciences Dean Research (Physical and Mathematical Sciences), University of Delhi , July 4, 2012- Nov.25, 2016.
13. , University of Delhi. Dec.21, 2012-Aug.2, 2013.
- 7.

Areas of Interest / Specialization

Functional Analysis, Complex Analysis, Harmonic Analysis , Operator Spaces, Harmonic Analysis, Representation theory of locally compact groups and hypergroups, Complex analytic methods in partial differential equations.

Subjects Taught

1. At M.Sc./M.A. level :Functional Analysis, Measure and Integration, Advanced course on Measure and Integration, Complex Analysis, Advanced course on Complex Analysis, Abstract Harmonic Analysis I and II, Fourier Analysis, Differential Geometry, Biostatistics.
2. At M.Phil. level : Spectral theory of unbounded operators, Matrix Analysis, Introduction to Operator algebras.
3. At undergraduate level : Riemann integration, Metric spaces, Partial differential equations, Fourier series, Elementary Calculus, Analysis and Algebras.

Research Guidance

List against each head (If applicable)

Supervision of awarded Doctoral Thesis

1. Bhatta, Chet Raj, 2005, Behaviour of functions and their Fourier transforms.
2. Prakash, Ravi, 2007, Boundary value problems in complex analysis.
3. Gupta, Nisha, 2009, A study of Banach frames and related concepts in Banach spaces.
4. Chaudhary, Arun, 2010, Complex Boundary value problems in unbounded regions.
5. Mishra, Mukund Madhav, 2011 Potential theory of Stratified Lie groups.
6. Jain, Ranjana, 2012 Operator space tensor product of C^* -algebras and their ideal structure.
7. Rajpal, Vandana, 2014, Projective Norms on tensor products of operator spaces
8. Nagpal, Sumit, 2014, First and Second Order Differential Subordinations and Radius Problems for Caratheodary Functions.
9. Jain, Sandhaya, 2015, Weighted function spaces of Lebesgue type.
10. Kumar, Ravinder, 2016, Efficient Numerical Algorithms for quasi-linear elliptic and hyperbolic partial differential equations.'
11. Dubey, Shivani, 2017, Boundary value problems for the Kohn-Laplacian on the Heisenberg group H_n
12. Bansal, Ashish, 2017, Heisenberg Inequality and Uncertainty Principle on locally compact groups.
13. Singh, Monika, 2017, Function Spaces of Lebesgue Type and Weighted Norm Inequalities.
14. Preeti, 2017, C^* -envelopes and Tensor Products of Operator Systems.
15. Verma, Shelly, 2018, Coefficient and radius estimates of normalized analytic functions.
16. Kumari Santosh, 2018, Weighted norm inequalities involving integral operators .

1. Supervision of Doctoral Thesis, under progress

Jyoti Sharma, Uncertainty Principles

Janson,Anthony, Operator Spaces

2. Supervision of awarded M.Phil dissertations

1. Verma, Anita, 1999, The Grothendieck inequality.
2. Batra Rakesh, 2005, Uncertainty principle on locally compact groups.
3. Vaid Ruchika, 2005, Higher order Cauchy-Pompeiu operators and their applications.
4. Agarwal, Anu, 2006, Arens regularity of certain Banach algebras.
5. Singhal Sandhya, 2006, Symmetry and Wiener property of weighted group algebras.
6. Khurana, Geetan, 2007, Ideal structure of regular Banach algebras.
7. Agarwal Shivani, 2008, Operator amenability of the Fourier algebra.

8. Kaur Gurpreet, 2008, Integral operators in Clifford analysis and polydomains.
9. Kukreja, Sapna, 2009, Norm inequalities for operators on Hilbert spaces.
10. Kashyap Priyanka, 2009, Exact solutions of nonlinear differential equations.
11. Bansal Ashish , 2010, Hardy's Uncertainty principle on nilpotent Lie groups.
12. Vandana, 2011, Approximate identities and ideals in Banach algebras.
13. Rathi Poonam, 2012, *Spectral Synthesis for Banach Algebras*.
14. Preeti, 2013, *Operator System structures and their tensor products*.
15. Verma, Shelly, 2014, Bicomplex function theory and complex harmonic morphisms into bicomplex manifolds .
16. Pandey, Shesh Kumar, 2016, *Boundary value problems on certain domains in the complex plane*.
17. 17. Bansal, Piyush, 2017, Uncertainty Principles on Sturm-Liouville
18. Hypergroups,

3. *Supervision of M.Phil dissertations, under progress Nil*

Publications Profile

List against each head(If applicable) (as Illustrated with examples)

1. *Books/Monographs (Authored/Edited)*
2. *Research papers published in Refereed/Peer Reviewed Journals*

List of Publications of Prof. Dr. Ajay Kumar

Publications of Ajay Kumar

1. Ajit Kaur Chilana and Ajay Kumar, (1979) Spectral synthesis in Segal algebras on hypergroups. Pacific Journal of Mathematics 80,59-76(USA) Mathematical Reviews 80g:430011 Zentralblatt fur Mathematik 371.43012(402.43004), ISSN 0030-8730
2. Ajit Kaur Chilana and Ajay Kumar, (1979) Ultra strong Ditkin sets in hypergroups. Proc. Amer. Math. Soc. 77,353-358(USA) Mathematical Reviews 80g:43012 Zentralblatt fur Mathematik 388.43006(414.43005), ISSN 0002-9939.
3. Ajay Kumar and Ajit Iqbal Singh, (1981) Spectral synthesis in product and quotients of hypergroups. Pacific Journal of Mathematics 94,177-194(USA) Mathematical Reviews 82h:43005 Zentralblatt fur Mathematik 415.43010(458.43010), ISSN 0030-8730
4. Wilfried Hauenschild, Eberhard Kaniuth and Ajay Kumar, (1983) Ideal structure of Beurling algebras on $[FC]$ - groups. Journal of Functional Analysis 51,213-228(USA) Mathematical

Reviews 84m:22007 Zentralblatt fur Mathematik 529.43005, ISSN 0022-1236.

5. Wilfried Hauenschild, Eberhard Kaniuth and Ajay Kumar, (1984) Harmonic analysis on central hypergroups and induced representations. Pacific Journal of Mathematics 110,83-112(USA) Mathematical Reviews 85g:43015 Zentralblatt fur Mathematik 476.43007(528.43005), ISSN 0030-8730
6. Ajay Kumar, (1986) Beurling algebras and structure of locally compact groups, Modern Analysis and its applications. Prentice Hall of India,229-240(India) Mathematical Reviews 89d:22008 Zentralblatt fur Mathematik 667.43003, ISBN -0-87692-439-9.
7. Ajay Kumar and Ajit Iqbal Singh, (1988) Counter examples in spectral synthesis on hypergroups. Rendiconti di Math. 8,147-155(Italy) Mathematical Reviews 91i:43004 Zentralblatt fur Mathematik 707.43003, ISSN 1120-7183.
8. Ajay Kumar and Ajit Iqbal Singh, (1989) A dichotomy theorem for random walks on hypergroups. Lecture Notes in Mathematics, Springer Verlag 1379 ,179-184 (Germany) Mathematical Reviews 90i:43004 Zentralblatt fur Mathematik 669.60017, ISBN: 978-3-540-51401-5.
9. Oliver Gebuhrer and Ajay Kumar, (1989) Wiener property for a class of discrete hypergroups. Mathematische Zeitschrift 202,271-274 (Germany) Mathematical Reviews 90i:43004 Zentralblatt fur Mathematik 672.43004, ISSN 0025-5874.
10. Siegfried Echterhoff, Eberhard Kaniuth and Ajay Kumar, (1991) Qualitative uncertainty principle for locally compact groups. Forum Mathematicum 3, 355-369(Germany) Mathematical Reviews 98a:43005 Zentralblatt fur Mathematik 725.43006, ISSN 1435-5337.
11. Ajay Kumar, (1992) Qualitative uncertainty principle for hypergroups. Lecture Notes in Mathematics, Springer Verlag 1511,1-9(Germany) Mathematical Reviews 94a:43012 Zentralblatt fur Mathematik 781.43003 ,ISBN 3-540-55365-7.
12. Heinrich Begehr and Ajay Kumar, (1994) Bi-analytic functions of several complex variables. Complex Variables, Theory and Applications 24,89-106(USA) Mathematical Reviews 95k:32008 Zentralblatt fur Mathematik 794.32005 ISSN 1747-6933
13. Ajay Kumar, (1994) A generalized Riemann boundary problem in two variables. Arch. Math. 62,531-538 (Germany) Mathematical Reviews 95g:32995 Zentralblatt fur Mathematik 803.32001, ISSN0003-889X
14. Ajay Kumar, (1994)Riemann Hilbert problem for a class of nth order systems. Complex Variables, Theory and Applications 25,11-22(USA) Mathematical Reviews 95k:30100 Zentralblatt fur Mathematik 804.30036 ISSN 1747-6933
15. Ajay Kumar and Allan M. Sinclair, (1998) Equivalence of norms on operator space tensor product of C^* -algebras. Transactions of American Mathematical Society 350, 2033-2048 (USA) Mathematical Reviews 99a:46103 Zentralblatt fur Mathematik 906.46043, ISSN 0002-9947.

16. Ajay Kumar, (2001) Qualitative uncertainty principle for certain hypergroups. Glasnik Mathematicki 36 ,33-38 (Crotia) Mathematical Reviews 2002h:43006 Zentralblatt fur Mathematik 982.43005, ISSN 0017-095X.
17. Ajay Kumar, (2001) Operator space projective tensor product of C^* -algebras. Mathematische Zeitschrift 237,211-217 (Germany) Mathematical Reviews 2002c:46114 Zentralblatt fur Mathematik 1035.46040, ISSN 0025-5874.
18. Ajay Kumar, (2001) Involution and the Haagerup tensor product, Proc. Edinburgh Math. Soc. 44,317-322 (U.K.) Mathematical Reviews 2002c:46066 Zentralblatt fur Mathematik 1011.46051, ISSN 0013-0915.
19. Eberhard Kaniuth and Ajay Kumar , (2001) Hardy's Theorem for simply connected Nilpotent Lie groups. Math. Proc. Cambridge Phil. Soc. 131,487-494 (U.K.) Mathematical Reviews 2002c:22007 Zentralblatt fur Mathematik 996.43004, ISSN 0305-0041.
20. Ajay Kumar and Chet Raj Bhatta, (2003) Uniform version of Wiener Tauberian theorem, Journal of Mathematical Sciences 2,63-71(India) Mathematical Reviews 2005h:43006 Zentralblatt fur Mathematik 1079.43006
21. Ajay Kumar and Chet Raj Bhatta, (2004) An Uncertainty Principle like Hardy's theorem for nilpotent Lie groups. Journal of Australian Math.Soc. 77,47-53 (Australia) Mathematical Reviews 2005f:43005 Zentralblatt fur Mathematik 1066.22006, ISSN 1446-7887.
22. Ajay Kumar and Ravi Prakash, (2005) Boundary value problems for Poisson equation and bi-analytic functions, Complex Variables, Theory and Applications 50,597-608 (U.K.) Mathematical Reviews 2006c:30056 Zentralblatt fur Mathematik Pre 02247964 ISSN 0278-1077
23. Heinrich Begehr and Ajay Kumar, (2005) Boundary value problems for higher order inhomogeneous equations I, Analysis,International Mathematical journal of Analysis and its applications, 25,55-71(Germany) Mathematical Reviews 2006d:30067 Zentralblatt fur Mathematik 1077.30, ISSN 2196-6753.
24. Heinrich Begehr, Ajay Kumar, Dieter Schmersau and Judith C.Vanegas,(2005) Mixed complex boundary value problems in complex analysis, Intern. Connf. On Finite or Infinite Dimensional Complex Analysis and Applications. Eds. H. Kazama, M. Morimoto, C.C. Yang. Kyushu Univ. Press, Fukuoka, 25-40. Mathematical Reviews 2359680, Zentralblatt fur Mathematik 1129.30317.ISBN 4-87378-899-4
25. Ajay Kumar and Ravi Prakash, (2006) Mixed boundary value problems for higher order inhomogeneous equations, Complex Variables and Elliptic Equations 51,209-223 (USA), Mathematical Reviews 2006j:30086 Zentralblatt fur Mathematik 1092.30056 ISSN 1747-6933
26. Heinrich Begehr and Ajay Kumar, (2006) Boundary value problems for bi-polyanalytic functions, Applicable Analysis 85,1045-1077 (USA), Mathematical Reviews 2007f:30073 Zentralblatt fur

27. Heinrich Begehr and Ajay Kumar, (2007) Boundary value problems for higher order inhomogeneous equations II, Analysis, International Mathematical journal of Analysis and its applications, 27, 359-373 (Germany) Mathematical Reviews 2373661, Zentralblatt fur Mathematik 1137.30010, ISSN 2196-6753.
28. Ajay Kumar and Ravi Prakash, (2007) Iterated Boundary Value Problems for the inhomogeneous Polyanalytic equation, Complex Variables and Elliptic Equations 52,921-932 (USA) Mathematical Reviews 2374962(2008m:30050) Zentralblatt fur Mathematik 1146.30031 ISSN 1747-6933
29. Ajay Kumar, (2007) Operator space structure of Banach Spaces, Math. Student 76,239-248 (India). Zentralblatt fur Mathematik 1194.46079 Mathematical Reviews 2522941, ISSN 0019-5839
30. Ajay Kumar and Ravi Prakash, (2008) Neumann and Mixed boundary value problem, Journal of Applied Functional Analysis 3, 399- 417 (USA). Mathematical Reviews 2387470(2009a:30096) Zentralblatt fur Mathematik 1165.30026, ISSN 1559-1948.
31. Ajay Kumar and Ravi Prakash, (2008) Dirichlet problem for Inhomogeneous Polyharmonic equation, Complex Variables and Elliptic Equations 53, 643-651 (USA). ISSN 1747-6933. Mathematical Reviews 2431345 (2009i : 31003) Zentralblatt fur Mathematik 1159.31302.
32. Ranjana Jain and Ajay Kumar, (2008) Operator space tensor product of C^* -algebras, Mathematische Zeitschrift 260, 805-811 (Germany). ISSN 0025-5874. Mathematical Reviews 2443331(2009i:46098) Zentralblatt fur Mathematik 1165.46030.
33. Ajay Kumar and Mukund Madhav Mishra, (2008) Polyharmonic Dirichlet problem on the Heisenberg group. Complex Variables and Elliptic Equations 53, 1103-1110. (USA). ISSN 1747-6933. Mathematical Reviews 2467385 (2009m:35058) Zentralblatt fur Mathematik 1177.22005.
34. Arun Chaudhary and Ajay Kumar, (2009) Boundary value problems in the upper half plane. Complex Variables and Elliptic Equations 54(5), 441-448 (USA). ISSN 1747-6933. Mathematical Reviews 2524139 (2010d:30054) Zentralblatt fur Mathematik 1166.30021.
35. Ajay Kumar and Ravi Prakash, (2009) Mixed boundary value problem for inhomogeneous Poly-analytic-harmonic equation, More Progress in Analysis- Proceedings of the 5th International ISAAC Congress, Catania Eds. H. Begehr, F. Niolesi ,World Scientific, Singapore,1149-1161. ISBN-10 981-283-562-8. Zentralblatt fur Mathematik 1183.30041.
36. Heinrich Begehr, Arun Chaudhary and Ajay Kumar, (2010) Bi-polyanalytic functions in the upper half plane. Complex Variables and Elliptic Equations 55,305-316 (USA). ISSN 1747-6933. Mathematical Reviews 2011e;30111 Zentralblatt fur Mathematik 1188.30057.
37. Arun Chaudhary and Ajay Kumar, (2010) Mixed Boundary value problems in the upper half

- plane. Journal of Applied Functional Analysis 5, 209-220 (USA). ISSN 1559-1948. Zentralblatt fur Mathematik Pre 05775484 Mathematical Reviews 2675595 (2011g:30102).
38. Ajay Kumar and Mukund Madhav Mishra, (2010) Green's functions on the Heisenberg Group. Analysis, International Mathematical journal of Analysis and its applications 30,147-155(Germany). ISSN 2196-6753. Mathematical Reviews 2604184(2011d;22008 f) Zentralblatt fur Mathematik 1197.22005.
 39. Ranjana Jain and Ajay Kumar ,(2011) Ideals in operator space projective tensor product of C^* -algebras, J. Aust. Math. Soc. 91, 275-288.(Australia). ISSN 1446-7887. Mathematical Reviews 2861849 Zbl 1235.46050 also available <http://arxiv.org/abs/1106.3143>.
 40. Ranjana Jain and Ajay Kumar (2011), Projective tensor product, Proc. Of 21 Annual conference Jammu Mathematical Society. 27-40. ISBN 978-81-910015-1-8
 41. Ajay Kumar and Vandana Rajpal (2012) "Symmetry and quasi-centrality of operator space projective tensor product" Archiv der Mathematik. 99 , 519–529 (Germany). ISSN: 0926-2601 (Print) 1572-929X (Online) Mathematical Reviews 3001555 . Zentralblatt fur Mathematik 1266.46044 Available also on <http://arxiv.org/abs/1205.1679>.
 42. Ajay Kumar and Mukund Madhav Mishra (2013),Green functions and related boundary value problems on the Heisenberg group. Complex Variables and Elliptic Equations 58, 547-556(USA). ISSN 1747-6933. Mathematical Reviews 3038746 . Zentralblatt fur Mathematik 1268.22008 Available online DOI:10.1080/17476933.2012.693482.
 43. Ajay Kumar and Mukund Madhav Mishra (2013), Powers of sub-Laplacian on step two nilpotent Lie groups. Journal of Geometric Analysis 23, 1559-1570(USA). ISSN 1050-6926. Mathematical Reviews 3078364 . Zentralblatt fur Mathematik 1280.22014 Available online DOI 10.1007/s12220-012-9298-0.
 44. Ranjana Jain and Ajay Kumar, (2013) Spectral Synthesis for the Operator space projective tensor product of C^* -algebras". Bulletin of the Malaysian Mathematical Sciences Society 36,855-864 (Malaysia). ISSN 0126-6705. Mathematical Reviews 3108780 . Zentralblatt fur Mathematik 1286.46062 Also available on . <http://arxiv.org/abs/1108.3208>.
 45. Ranjana Jain and Ajay kumar, (2014) Operator space tensor product of C^* algebras: Embedding into second dual and ideal structure, Proc. Edinburgh Math. Soc.57.505-519.(U.K.). ISSN 0013-0915. Mathematical Reviews 3200321 Zbl 1303.46042 Available on arXiv:1106.2644v. Available online DOI: <http://dx.doi.org/10.1017/S001309151300045X>.
 46. Ajay Kumar and Vandana Rajpal,(2014) -Regularity of Operator Space Projective Tensor Product of C^* -Algebras" Journal of Applied Functional Analysis 9, 70-80. (USA). ISSN 1559-1948. Mathematical Reviews 3183838 Also Available on <http://arxiv.org/abs/1112.0444>.

47. Ajay Kumar, (2014) From Fourier series to Harmonic analysis on locally compact groups, Math. Student 83,87-107(India) ISSN 0019-5839. Mathematical Reviews 3310043
48. Ajay Kumar and Vandana Rajpal, (2014) "Projective tensor product of C*-algebras" Advances in Pure Mathematics 4, 176-188. ISSN 2160-0368. Also available on <http://arxiv.org/abs/1305.0791>.
49. Mukund Madhav Mishra, Ajay Kumar and Shivani Dubey (2014) "Green's function for certain domains in the Heisenberg Group H_n " Boundary Value Problems 2014,2014:182(USA). , ISSN 1687-2770 Mathematical Reviews 3286109 . Zentralblatt fur Mathematik 1304.22008. Also Available on <http://arxiv.org/abs/1308.5643>. Published online <http://www.boundaryvalueproblems.com/content/2014/1/182>.
50. Ashish Bansal, Ajay Kumar (2015) "Generalized analogs of the Heisenberg uncertainty inequality" *Journal of Inequalities and Applications* 2015:168, 1-15. (USA). ISSN 1029-242X. DOI 10.1186/s13660-015-0691-7R <http://arxiv.org/abs/1410.3050> Mathematical Reviews 3351169. Zbl 06561531 . Zentralblatt fur Mathematik 0651531
51. Shivani Dubey, Ajay Kumar and Mukund Madhav Mishra,(2015) "Green's function for a slice of the Koranyi ball in the Heisenberg Group H_n ," International Journal of Mathematics and Mathematical Sciences,(USA) Volume 2015, Article ID 460461, 7 pages <http://dx.doi.org/10.1155/2015/460461>, ISSN 0161-1712. Mathematical Reviews 3413058
52. Vandana Rajpal, Ajay Kumar and Takashi Itoh,(2015) "Schur tensor product of operator spaces" Forum Mathematicum 27, 3635 – 3655(Germany) DOI 10.1515/forum-2013-0142 Available on <http://arxiv.org/abs/1308.4538>. ISSN 1435-5337 Mathematical Reviews 3420353, . Zentralblatt fur Mathematik 06505814. .
53. Ashish Bansal, Ajay Kumar (2016) "Heisenberg Uncertainty Inequality for Gabor Transform" Journal of Mathematical Inequalities 10, 737-749 Available on <http://arxiv.org/abs/1507.00446> and online at <http://jmi.ele-math.com/forthcoming> ISSN: **1846-579X** (print), **1848-9575** (online)
54. Shivani Dubey, Ajay Kumar and Mukund Madhav Mishra,(2016) Neumann boundary value problem in domains of the Heisenberg Group H_n Potential Analysis 45, 119-133. ISSN: 0926-2601 (Print) 1572-929X (Online) Published online <http://dx.doi.org/10.1007/s11118-016-9538-1> Also Available on <http://arxiv.org/abs/1411.6838> **Mathematical Reviews 3511807** . Zentralblatt fur Mathematik 06598966
55. Ajay Kumar and Vandana Rajpal (2016), "Arens regularity of projective tensor products" Archiv der Mathematik 107, 531-541. ISSN: 0003-889X (Print) 1420-8938 (Online) ISSN: 0003-889X (Print) 1420-8938 (Online) Available on arxiv:1305.0791v1 [math.OA]. Published online DOI: 10.1007/s00013-016-0942-y Mathematical Reviews 3562381 Zentralblatt fur Mathematik

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56. Ashish Bansal, Ajay Kumar” (2017) Qualitative Uncertainty Principle for Gabor transform” Bulletin Korean Mathematics Society 54,71-84. pISSN: 1015-8634 / eISSN: 2234-3016 Available also on <http://arxiv.org/abs/1508.05475> Mathematical Reviews 3614563 Zentralblatt fur Mathematik 06699727.
57. Shivani Dubey, Ajay Kumar and Mukund Madhav Mishra (2017), Polyharmonic Neumann and mixed boundary value problems in the Heisenberg group H_n . Complex Variables and Elliptic Equations 62,no.10,1506-1518. ISSN: 1747-6933 (Print) 1747-6941 (Online) DOI: 10.1080/17476933.2016.1278439. Available on <http://arxiv.org/abs/1511.00079>. Mathematical Reviews 3677950 , Zentralblatt fur Mathematik 06774297
58. Preeti Luthra and Ajay Kumar (2017), Embeddings and C^* -envelopes of exact operator systems. Bull.Aust.math.Soc. 96,issue 2 , 274-285. ISSN: 0004-9727 (Print), 1755-1633 (Online) DOI: <https://doi.org/10.1017/S0004972717000284> Available on <http://arxiv.org/abs/1603.01491> Mathematical Reviews 3703909, Zentralblatt fur Mathematik 06792044.
59. Jyoti Sharma and Ajay Kumar (2017), “Qualitative uncertainty principle for Gabor transform on certain locally compact groups” Advances in Pure and Applied Mathematics- De Gruyter 9, 205-220. Online published on DOI: <https://doi.org/10.1515/apam-2017-0050> [Mathematical Reviews 3819539](https://doi.org/10.1515/apam-2017-0050)
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60. Preeti Luthra, Ajay Kumar and Vandana Rajpal (2018), Polynomials in operator space theory: Matrix ordering and algebraic aspects . Positivity –Springer 22,629-652. . ISSN: 1385-1292 (Print) 1572-9281 (Online) Available on <https://link.springer.com/article/10.1007/s11117-017-0532-7> Also available on <http://arxiv.org/abs/1504.02846>. Mathematical Reviews 3780819
61. Preeti Luthra and Ajay Kumar, Nuclearity properties and C^* -envelopes of operator system inductive limits. To appear in Journal Korean Math.Soc. Available on <http://arxiv.org/abs/1612.01421>
62. Ashish Bansal, Ajay Kumar and Jyoti Sharma” Hardy’s Theorem for Gabor transform “ Available on <http://arxiv.org/abs/1603.02784>. To appear in Journal Australian Math.Soc.

- a) Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals -All above are refereed journals.
- b) Research papers published in Refereed/Peer Reviewed Conferences
- c) Research papers Published in Conferences/Seminar other than Refereed/Peer Reviewed Conferences
4. Other publications (Edited works, Book reviews, Festschrift volumes, etc.) Reviewer for Mathematical Reviews and Zentralblatt fur Mathematik

Conference Organization/ Presentations (in the last three years)

List against each head(If applicable)

1. Organization of a Conference

1. Organising Secretary for National workshop on Analysis held at University of Delhi, 2007
2. Organising Secretary for the International conference on "Operator theory and allied areas" held at University of Delhi, 2007.
3. Organised symposium on "Harmonic analysis and Operator spaces at Indian Mathematical Society conference at Pune, 2007
4. Course coordinator for the Kabul programme, MOU between University of Delhi and World Bank.
5. Co-convenor of Pre-ICM, International conference held at University of Delhi, from Dec.18-Dec.20, 2008.
6. Co-ordinator, Advance training programme in Mathematics for Lecturers, Sponsored by NBHM held at Delhi University from Mar.16.2009- Apr.4,2009.
7. Treasurer, National Meet on History of Mathematical Sciences, held at Delhi University from Jan. 7.2010- Jan. 9, 2010.
8. Co-ordinator, Advance training programme in Mathematics for Lecturers, Sponsored by NBHM held at Delhi University from Mar.22.2010- Apr.3,2010.
9. Organised symposia on Harmonic analysis at Ramanujan Mathematical Society at Jalandhar, May3-May5, 2010.
10. Co-ordinator, Advance training programme in Mathematics for Lecturers, Sponsored by NBHM held at Delhi University from Mar.21.2011- Apr.2,2011.
11. Co-ordinator, Advance training programme in Mathematics for Lecturers, Sponsored by NBHM held at Delhi University from Mar.26.2012- Apr.7,2012.
12. Convener, The legacy of Srinivasa Ramanujan- an international conference held during Dec.17-22,2012.
13. Coordinator, International workshop on "Operator Spaces" Dec.7-9, 2015 held at University of Delhi.
14. Coordinator, 14th Discussion Meet on Harmonic Analysis Dec.10-12,2015 held at University of Delhi. Chairman, Shodhaganga Digitization of thesis and Plagiarism Check, University of Delhi,2014-16
- 15.Member, International MOU Committee, Univ.of Delhi.2012-16.
- 16.Member Academic Council, University of Delhi, 2012-2015.
- 17.Chairman, Purchase committee photocopy papers, Univ.of Delhi,2015-17.
- 18.Member, Adhoc committee on Recruitment and promotions, Univ.of Delhi, 2016-17.
- 19.Member, Adhoc committee on Amendments III & IV, Univ.of Delhi, 2016-17.
- 20.Member, NAAC committee, Univ.of Delhi, 2016-17.
- 21.Editor, Annual Report of University of Delhi, 2014-15, and 2015-16.
- 22.Member, DST-Purse grant committee, University of Delhi, 2011-16.
- 23.Chairman. DUCR, University of Delhi, 2017.
- 24.Member, Screening Committee for several Departments, University of Delhi, 2017.

25. University Representative on the general Council of Netaji Subhash Institute of Technology.2016-20.
26. Chairman, Pre-Screening committee for Principals in colleges of University of Delhi, 2017.
- 27.Member, Inspire fellowship evaluation committee, Department of Science and Technology.

2. *Participation as Paper/Poster Presenter*

Research Projects (Major Grants/Research Collaboration)

Awards and Distinctions

- 1.DAAD (German Academic Exchange Service) Post-doctoral fellow at University of Paderborn,Germany. 1981-83.
2. C.I.E.S.(French Govt. Fellowship) Post-doctoral fellow at University of Strasbourg,France 1987-88.
3. Post-doctoral Fellow (Wissenschaftlicher Mitarbeiter) at Fachbereich Mathematik, University of Paderborn, Germany. 1988-89
4. DAAD (German Academic Exchange Service) Re-invitation fellowship at Freie Universitat,Berlin,Germany. 1991
5. Post-doctoral Fellow of Freie Universitat Fachbereich Mathematik, Freie Universitat, Berlin, Germany. 1991
6. Commonwealth Academic Staff Fellowship at University of Edinburgh,U.K.1995-96
7. DAAD (German Academic Exchange Service) Re-invitation fellowship at Fachbereich Mathematik, University of Paderborn,Germany. 1999
- 8.Royal Society,London fellowship collaboration with Indian National Science Academy at University of Edinburgh, U.K.1999-2000

9. DAAD (German Academic Exchange Service) Re-invitation fellowship at Freie

Universität, Berlin, Germany 2003

10. DFG (German Research Foundation) collaboration with Indian National Science Academy at Freie Universität, Berlin, Germany. (Two times) 2004, 2008

11. JSPS (Japan Society for Promotion of Science) collaboration with Indian National Science Academy at Gunma University, Japan, 2012

Association With Professional Bodies

1. *Editing*
2. *Reviewing*

1. Reviewer for Mathematical Reviews, New York, USA.

2. Reviewer for Zentralblatt für Mathematik, Germany

3. Referee for several International and Indian Journals.

4. Referee for several national and international journals.

5. Ph.D. examiner for several Universities and Institutes

3. *Advisory*

1. Chairman, Content Advisory Committee for Mathematics, HRD Ministry
2. Member of Vice Chancellor empowered committee for revision of Hons. syllabus of Delhi University.
3. Course coordinator, Institute of Life Long Learning, University of Delhi
4. Advisor/Consultant for Union Public Service Commission, Delhi.
5. Referee /Consultant for Department of Science and Technology, Delhi.
6. Consultant for Lok Sabha and Rajya Sabha.
7. Member of Governing Bodies of several Colleges of Delhi University.
8. Member of Advisory Committee of SAP programme of UGC for several Universities.

4. *Committees and Boards*

1. Organized workshop (convener) for college teachers regarding discussions for new courses held on July 28-29, 2005 at South Campus University of Delhi.
2. Organized review meeting of the workshop (convener) for college teachers regarding discussions for new courses held on Sept. 16, 2005 at South Campus University of Delhi.
3. Member of committee for revision of B.A (Hons)/B.Sc. (Hons) Mathematics

- course., B.A.(Hons) Concurrent Courses, B.Sc. Physical Sciences/Life Sciences
4. Chairman, Content Advisory Committee for Mathematics, HRD Ministry
 5. Course coordinator, Institute of Life Long Learning, University of Delhi
 6. Advisor/Consultant for Department of Science and Technology, Delhi. Union Public Service Commission, Delhi, Lok Sabha and Rajya Sabha, University Grants Commission
 7. Member of Governing Bodies of several Colleges of Delhi University.
 8. Member of Advisory committee of SAP- UGC programme of different universities.
 9. Organizing Secretary for National workshop on Analysis held at University of Delhi, 2007
 10. Organizing Secretary for the International conference on "Operator theory and allied areas" held at University of Delhi, 2007.
 11. Organized symposium on "Harmonic analysis and Operator spaces at Indian Mathematical Society conference held at Pune, 2007
 12. Course coordinator for the Kabul programme, MOU between University of Delhi and World Bank.
 13. Co-convenor of Pre-ICM, International conference held at University of Delhi, from Dec.18-Dec.20, 2008.
 14. Coordinator, Advance training programme in Mathematics for Lecturers, Sponsored by NBHM held at Delhi University from Mar.16.2009- Apr.4, 2009.
 15. Treasurer, National Meet on History of Mathematical Sciences, held at Delhi University from Jan. 7.2010- Jan. 9, 2010.
 16. Coordinator, Advance training programme in Mathematics for Lecturers, Sponsored by NBHM held at Delhi University from Mar.22.2010- Apr.3, 2010.
 17. Organized symposia on Harmonic analysis at Ramanujan Mathematical Society at Jalandhar, May3-May5, 2010.
 18. Coordinator, Advance training programme in Mathematics for Lecturers, Sponsored by NBHM held at Delhi University from Mar.21.2011- Apr.2, 2011.
 19. Coordinator, Advance training programme in Mathematics for Lecturers,

Sponsored by NBHM held at Delhi University from Mar.26.2012- Apr.7, 2012.

20. Deputy coordinator, SAP programme University Grants Commission, 2010-2012.

21. Convener, The legacy of Srinivasa Ramanujan- an international conference held during Dec.17-22, 2012.

22. Coordinator, DSA-I programme of University Grants Commission 2013-2018.

23. Coordinator, International workshop on "Operator Spaces" Dec.7-Dec.9, 2015 held at University of Delhi.

24. Coordinator, 14th Discussion Meet on Harmonic Analysis Dec.10-12,2015 held at University of Delhi.

25. Member CBCS Oversight Committee , University of Delhi.

26. Member , CBCS examination committee , University of Delhi

27. Chairman, Shodhaganga Digitization of thesis and Plagiarism Check, University of Delh

28. Member, International MOU Committee, Univ.of Delhi.

29. Member Academic Council, University of Delhi, 2012-2015

30. *Memberships*

1. Fellow of International Society of Analysis, New York,USA.

2. Member of American Mathematical Society, USA.

3. Member of Ramanujan Mathematical Society, India

4. *Indian Science Congress*

5. *Indian Mathematical Society*

31. *Office Bearer*

Sectional President, Indian Science Congress 2014-15

Council Member, Indian Mathematical Society

Other Activities

Other Activities

List of Foreign Universities Visited/Worked

1. University of Paderborn, Germany, 1981-1983.

2. University of Tübingen, Germany, 1981.

3. Technical University of Munich, Germany, 1981

4. University of Würzburg, Germany, 1982.

5. University of Salzburg, Austria, 1982.

6. University of Nancy, France, 1987.

7. University of Strasbourg, France, 1987-1988.

8. Oberwolfach Institute, Germany, 1988.

9. University of Paderborn, Germany 1988-1989.

10. Freie Universität Berlin, Germany 1991-1992.

11. University of Paderborn, Germany, 1992.

12. International Centre of Theoretical Physics, Trieste, Italy, 1993.

13. University of Edinburgh, U.K. 1995-1996.

14. University of Sheffield, England, 1996.

15. University of Glasgow, U.K. 1996.

16. University of Paderborn, Germany, 1999.

17. University of Edinburgh, U.K. 1999-2000.

18. University of Yorkshire, England, 1999.
19. University of Belfast, Ireland, U.K. 1999.
20. Freie Universitat, Berlin, Germany, 2003
21. Freie Universitat, Berlin, Germany, 2004
22. University of Kabul, Afghanistan, 2006 University of Delhi Delegation
23. Freie Universitat, Berlin, Germany, 2008
24. University of Tokyo, Japan, 2012
25. Gunma University, Japan, 2012
26. Chiba University, Japan, 2012

Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.