

curriculum vitae
Apoorva Khare

*Analysis and Probability Research Group; and
Department of Mathematics
Indian Institute of Science
Bangalore – 560012, INDIA*

✉ (+91) 80-2293-3214
✉ khare@iisc.ac.in
<https://math.iisc.ac.in/~khare/>

POSITIONS HELD

Indian Institute of Science , Bangalore, India	
Associate Professor in Mathematics	2020 – present
Assistant Professor in Mathematics	2017 – 2020
Analysis and Probability Research Group , Bangalore: Member	2017+
Stanford University , Stanford, USA	2011 – 2017
Research Associate in Mathematics and Statistics	
Yale University , New Haven, USA	2009 – 2011
Lecturer in Mathematics	
University of California at Riverside , Riverside, USA	2006 – 2009
Visiting Assistant Professor in Mathematics	

POSITIONS – OTHER

<i>Simons Associate</i> of the ICTP (Trieste, Italy)	2025–27
<i>Shanti Swarup Bhatnagar Prize</i> from CSIR, Govt. of India (Delhi)	2023+
<i>Fellow</i> of the Indian Academy of Sciences (Bangalore)	2022+
<i>SwarnaJayanti Fellow</i> of SERB and DST, Govt. of India (Delhi)	2020 – 2025
<i>Ramanujan Fellow</i> of SERB, Govt. of India (Delhi)	2018 – 2023
<i>Young Investigator</i> of Infosys Foundation, India (Bangalore)	2017 – 2019

EDUCATION

University of Chicago , Chicago, USA	2000 – 2006
Ph.D. in Mathematics, June 2006	
M.S. in Mathematics, December 2001	
Lecturer of Mathematics in the College	
Indian Statistical Institute , Kolkata, India	1997 – 2000
B. Stat. (Hons.), June 2000: Graduated First Class with Distinction	

SHORT ACADEMIC VISITS

<i>Mathematisches Forschungsinstitut Oberwolfach</i> , Oberwolfach, Germany	Sep–Oct 2025
<i>International Centre for Mathematical Sciences</i> , Edinburgh, UK	Nov 2024
<i>ETH Zürich</i> , Zürich, Switzerland	May 2024
<i>University of Plymouth</i> , Plymouth, UK	Apr–May 2024
<i>National University of Singapore</i> , Singapore	Oct 2023

SHORT ACADEMIC VISITS (cont.)

<i>Institute for Advanced Study (IAS)</i> , Princeton, NJ, USA	<i>Jul 2023</i>
<i>American Institute of Mathematics</i> , Pasadena, CA, USA	<i>Jul 2023</i>
<i>Mathematical Sciences Institute</i> , Australian National University, Canberra, AUS	<i>Apr–May 2023</i>
<i>University of Delaware</i> , Newark, DE, USA	<i>Aug 2022</i>
<i>University of Delaware</i> , Newark, DE, USA	<i>Dec 2021</i>
<i>University of Delaware</i> , Newark, DE, USA	<i>Jan–Feb 2020</i>
<i>University of California at Los Angeles</i> , Los Angeles, CA, USA	<i>Sep–Oct 2018</i>
<i>American Institute of Mathematics</i> , San Jose, CA, USA	<i>Nov 2016</i>
<i>International Centre for Mathematical Sciences</i> , Edinburgh, UK	<i>Aug 2016</i>
<i>University of Illinois at Chicago</i> , Chicago, IL, USA	<i>Sep–Oct 2015</i>
<i>Harish-Chandra Research Institute</i> , Allahabad, India	<i>Dec 2014</i>
<i>American Institute of Mathematics</i> , Palo Alto, CA, USA	<i>Oct 2014</i>
<i>Institut Fourier</i> , Grenoble, France	<i>Jun 2008</i>
<i>Tata Institute of Fundamental Research</i> , Mumbai, India (<i>Nurture Program</i>)	<i>Jun 2000</i>
<i>Tata Institute of Fundamental Research</i> , Mumbai, India (<i>VSRP</i>)	<i>Dec 1999</i>
<i>Tata Institute of Fundamental Research</i> , Mumbai, India (<i>Nurture Program</i>)	<i>Jun 1999</i>
<i>Tata Institute of Fundamental Research</i> , Mumbai, India (<i>Nurture Program</i>)	<i>Jun 1998</i>
<i>International Mathematical Olympiad Training Camp</i> , Mumbai, India	<i>May 1997</i>
<i>International Mathematical Olympiad Training Camp</i> , Mumbai, India	<i>May 1996</i>

SELECTED TALKS

- ***INSA–IMU Colloquium*, ISI Kolkata – Invited talk** 2025
- ***3rd conference on Recent advances in Mathematics and related areas*, SRM University AP – Invited talk** 2025
- ***International Conference on Recent Trends in Mathematics and Statistics*, Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon – Keynote address** 2025
- ***Harish-Chandra birth centenary lectures*, IIT Kanpur** 2024
- ***6th Sarvadaman Chowla Memorial Lecture*, Panjab University, Chandigarh** 2023
- ***Indian Mathematical Society*, 89th Annual Conference (BITS Pilani at Hyderabad): A.K. Agarwal Award Lecture** 2023
- ***2nd International Conference on Mathematical Analysis and Applications in Modeling*, Jadavpur University – Plenary talk** 2023
- ***AMS Joint Mathematics Meetings* (JMM, Boston, USA): ILAS Invited Address (Plenary)** 2023
- ***Indian Mathematical Society*, 88th Annual Conference (BIT Mesra): Hansraj Gupta Memorial Award Lecture** 2022

SELECTED TALKS (cont.)

- *Formal Power Series and Algebraic Combinatorics* (FPSAC) Meeting (India): **2022**
Invited (Plenary) talk
- *2nd conference on Recent advances in Mathematics and related areas*, Kerala School of Mathematics – **Invited talk** **2022**
- *4th BRICS Mathematics Conference*, IISER Thiruvananthapuram – **Invited talk** **2021**
- *Ramanujan Mathematical Society*, 36th Annual Conference (Amrita University): **2021**
Invited talk (Semiplenary)
- *International Linear Algebra Society* (ILAS) Meeting (Brazil): **2019**
Plenary speaker (designated as the *LAMA Lecturer*)
- *20th Professor Wazir Hasan Abdi Memorial Lecture*, Cochin University of Science and Technology (CUSAT) **2019**
- *ICM Satellite Conference* (International Congress of Mathematicians) on Representation Theory (Peru): **Invited talk** **2018**
- *MCA 2017* (Mathematical Congress of the Americas, Canada) **2017**
Sectional talk: Representations of Lie Algebras

RESEARCH GRANTS AND AWARDS

- Advanced Research Grant (Mathematics) **2026 – 2029**
Funding Agency: Anusandhan National Research Foundation (ANRF), Govt. of India, Grant # *TBA*
(Sole PI; Direct costs: TBA)
- *Abdus Salam International Centre for Theoretical Physics* (Trieste, Italy): **2025–2027**
Simons Associateship (with full funding for a PhD student to visit each year)
- *Mathematisches Forschungsinstitut Oberwolfach* (Germany): **2025**
Oberwolfach Research Fellowship
- *Ganit Ratna Award*, by Professor Thakare Gaurav Sanstha **2025**
- *Indian Mathematical Society* (90th annual conference): B.N. Waphare Award **2024**
(joint with Projesh Nath Choudhury)
- *Institute for Advanced Study* (IAS, Princeton, USA): **2023**
Summer Collaborators program
- Shanti Swarup Bhatnagar Prize for 2022 in Mathematical Sciences **2023+**
Funding Agency: Council of Scientific & Industrial Research (CSIR), Govt. of India
- *American Institute of Mathematics* (Pasadena, CA, USA): **2023**
Research award to co-organize a workshop (with full funding for 28 participants) on “Theory and applications of total positivity”
- *Indian Mathematical Society* (89th annual conference): A.K. Agarwal Award **2023**
- *Mathematical Sciences Institute* (Australian National University, Canberra, AUS): **2023**
Mathematical Sciences Research Visitor Program
- SPARC (Scheme for Promotion of Academic and Research Collaboration) **2023 – 2025**
Research Grant in Mathematics,
Funding Agency: Ministry of Human Resource Development (MHRD), Govt. of India
(Co-PI; PIs: Tirthankar Bhattacharya and J. Martin Lindsay; Rs. 6,200,000 \approx \$75,000)

RESEARCH GRANTS AND AWARDS (cont.)

- SwarnaJayanti Fellowship (Research grant) in Mathematics 2020 – 2025
Funding Agencies: Department of Science and Technology (DST), Govt. of India, and Science and Engineering Research Board (SERB), Govt. of India
 Grants # *DST/SJF/MS/2019/3* and # *SB/SJF/2019-20/14*
 (Sole PI; Direct costs: Rs. 970,000 \approx \$13,000 per year)
- Ramanujan Fellowship (Research grant) in Mathematics 2018 – 2023
Funding Agency: Science and Engineering Research Board (SERB), DST, Govt. of India
 Grant # *SB/S2/RJN-121/2017*
 (Sole PI; Direct costs: Rs. 700,000 \approx \$10,500 per year)
- MATRICS Research grant in Mathematics 2018 – 2021
Funding Agency: Science and Engineering Research Board (SERB), DST, Govt. of India
 Grant # *MTR/2017/000295*
 (Sole PI; Direct costs: Rs. 200,000 \approx \$3,000 per year)
- Infosys Young Investigator Research grant 2017 – 2019
Funding Agency: Infosys Foundation, India
 (Sole PI; Direct costs: Rs. 600,000 \approx \$9,000 per year)
- *International Centre for Mathematical Sciences (Edinburgh, UK):* 2016
 RiG (Research-in-Groups) programme
 (Co-PI; Direct costs: £9,000 \approx \$13,140)
- *American Institute of Mathematics:* Research award to co-organize a workshop (with full funding for 31 participants) on “Positivity, graphical models, and modeling of complex multivariate dependencies” 2014
- Research grant # *DARPA YFA N66001-11-1-4131* 2011 – 2013
Funding Agency: Defense Advanced Research Projects Agency (DARPA), USA
 (Co-Investigator; PI: Bala Rajaratnam; \$150,000 per year)

TRAVEL GRANTS, ACADEMIC AWARDS, AND SCHOLARSHIPS

- *ILAS:* Invited Address Award + Travel Support for delivering a Plenary talk (ILAS Invited Address) at 2023 Joint Mathematics Meetings in Boston, USA 2023
- *NUS:* Travel Support from National University of Singapore to visit 2023
- *Tata Trusts, via Indian Institute of Science:* Travel Grant 2019,20
- *ILAS-LAMA* Travel Support for delivering a Plenary talk (the LAMA Lecture) at ILAS 2019 in Rio, Brazil 2019
- *Indian Institute of Science:* Travel Support Grant 2019
- *NSF and NSA (USA):* Travel Award for presenting a poster at FPSAC 2016 in Vancouver, Canada 2016
- *University of Chicago:* Robert R. McCormick Fellowship 2000 – 2002
- *National Board of Higher Mathematics:* Nurture Program award 1998, 1999
- *Indian Statistical Institute at Kolkata:* Academic excellence award 1998
- *Indian Statistical Institute at Kolkata:* Student Fellowship 1997 – 2000
- Indian National Mathematical Olympiad (INMO) Scholarship 1996

- *Odisha Mathematical Society*: Braja Bihari Patnaik Memorial Prize, for securing first place in the Regional Mathematical Olympiads 1995, 1996
- National Talent Search Examination (NCERT, Govt. of India) Scholarship 1995

OTHER DISTINCTIONS

- Elected a *Fellow of the Indian Academy of Sciences*, Bangalore (India) 2022+
- *DST (Dept. of Science & Technology)* and *Vigyan Prasar*, Government of India: 2022
One of 75 scientists profiled in the book “75 under 50: Scientists Shaping Today’s India”
- Elected to *Board of Directors*, International Linear Algebra Society 2021 – 2024
- *Tarun Tejankit Puraskar* by Loksatta newspaper, Mumbai (India) 2019
- *Indian Institute of Science*: Selected by Office of Deans / Divisional Chairs to showcase research in the IISc Annual Report 2018, 2023
- *Editorial Boards* (see “Service”): *Acta Scientiarum Mathematicarum* (Szeged); *American Mathematical Monthly*; *Indian Journal of Pure and Applied Mathematics*; *Linear Algebra and its Applications*; *Linear and Multilinear Algebra*; *São Paulo Journal of Mathematical Sciences*; *Texts and Readings in Mathematics (TRIM) Series*

SELECTED PUBLICATIONS (see *Publication List* for full list)

Published/in press:

- (1) (Book.) *Matrix analysis and entrywise positivity preservers*, 2022.
Vol. 471 in London Mathematical Society Lecture Note Series, Cambridge University Press, xxii+292 pp.; and Vol. 82 in Texts and Readings In Mathematics (TRIM Series), Hindustan Book Agency, xxii+339 pp.
- (2) (Invited survey article.) The entrywise calculus and dimension-free positivity preservers, with an Appendix on sphere packings – 90th anniversary of the Indian National Science Academy (INSA), *in press*.
- (3) *KRP’s contributions in Lie theory*, The Indian Mathematics Consortium Bulletin (tribute volume to Prof. K.R. Parthasarathy): Volume 5 issue 4, pages 5–8, 2024;
Reprinted in: *Indian Journal of Pure and Applied Mathematics* (tribute volume to Prof. K.R. Parthasarathy): Volume 55 issue 3, 834–837, 2024.
- (4) (With Projesh Nath Choudhury.) *Distance matrices of a tree: two more invariants, and in a unified framework*, European Journal of Combinatorics, 115: art.# 103787, 30 pp., 2024.
- (5) (With Alexander Belton, Dominique Guillot, and Mihai Putinar.) *Totally positive kernels, Pólya frequency functions, and their transforms*, Journal d’Analyse Mathématique, 150(1):83–158, 2023.
- (6) (With Siddhartha Sahi.) *From Cauchy’s determinant formula to bosonic and fermionic immanant identities*, European Journal of Combinatorics, 110: art.# 103683, 16 pp., 2023; erratum.
- (7) (With Alexander Belton, Dominique Guillot, and Mihai Putinar.) *Moment-sequence transforms*, Journal of the European Mathematical Society, 24(9):3109–3160, 2022.
- (8) *Smooth entrywise positivity preservers, a Horn–Loewner master theorem, and symmetric function identities*, Transactions of the American Mathematical Society, 375(3):2217–2236, 2022.

Published: (cont.)

(9) (With Gurbir Dhillon.) *The weights of simple modules in Category \mathcal{O} for Kac-Moody algebras*, Journal of Algebra, 603:164–200, 2022.

(10) (With Alexander Belton, Dominique Guillot, and Mihai Putinar.) *Hirschman–Widder densities*, Applied and Computational Harmonic Analysis, 60:396–425, 2022.

(11) (With Terence Tao.) *On the sign patterns of entrywise positivity preservers in fixed dimension*, American Journal of Mathematics, 143(6):1863–1929, 2021.

(12) (With Projesh Nath Choudhury and M. Rajesh Kannan.) *Sign non-reversal property for totally non-negative and totally positive matrices, and testing total positivity of their interval hull*, Bulletin of the London Mathematical Society, 53(4):981–990, 2021.

(13) (With Carolina Benedetti, Rafael S. González D’León, Christopher R.H. Hanusa, Pamela E. Harris, Alejandro H. Morales, and Martha Yip.)
A combinatorial model for computing volumes of flow polytopes,
Transactions of the American Mathematical Society, 372(5):3369–3404, 2019.

(14) (Survey article, peer-reviewed, with A. Belton, D. Guillot, and M. Putinar.)
A panorama of positivity: arXiv:math.CA/1812.05482 (unified version).

- *Part I: Dimension free*, in *Analysis of Operators on Function Spaces* (The Serguei Shimorin Memorial Volume; A. Aleman, H. Hedenmalm, D. Khavinson, M. Putinar, Eds.), pp. 117–165, Trends in Mathematics, Birkhauser, 2019.
- *Part II: Fixed dimension*, in *Complex Analysis and Spectral Theory*, Proceedings of the CRM Workshop held at Laval University, QC, May 21–25, 2018 (G. Dales, D. Khavinson, J. Mashreghi, Eds.). CRM Proceedings – AMS Contemporary Mathematics 743, pp. 109–150, American Mathematical Society, 2020.

(15) (As D.H.J. Polymath: with Tobias Fritz, Siddhartha Gadgil, Pace Nielsen, Lior Silberman, and Terence Tao.) Polymath14: *Homogeneous length functions on groups*, Algebra & Number Theory, 12(7):1773–1786, 2018.

(16) *Generalized nil-Coxeter algebras over discrete complex reflection groups*,
Transactions of the American Mathematical Society, 370(4):2971–2999, 2018.

(17) (With Gurbir Dhillon.) *Faces of highest weight modules and the universal Weyl polyhedron*, Advances in Mathematics, 319:111–152, 2017.

(18) (With Bala Rajaratnam.) *The Hoffmann-Jørgensen inequality in metric semigroups*,
Annals of Probability, 45(6A):4101–4111, 2017.

- Sequel paper: *Probability inequalities for strongly left-invariant metric semigroups/monoids, including all Lie groups*, Indian Journal of Pure and Applied Mathematics (tribute volume in memory of K.R. Parthasarathy), 55(3):1026–1039, 2024.

(19) (With Dominique Guillot and Bala Rajaratnam.) *Preserving positivity for rank-constrained matrices*,
Transactions of the American Mathematical Society 369(9):6105–6145, 2017; erratum.

(20) *Standard parabolic subsets of highest weight modules*,
Transactions of the American Mathematical Society 369(4):2363–2394, 2017; erratum.

(21) (With Alexander Belton, Dominique Guillot, and Mihai Putinar.) *Matrix positivity preservers in fixed dimension. I*, Advances in Mathematics 298:325–368, 2016.

(22) (With Dominique Guillot and Bala Rajaratnam.) *Preserving positivity for matrices with sparsity constraints*, Transactions of the American Math. Society 368(12):8929–8953, 2016.

Published: (cont.)

(23) (With Dominique Guillot and Bala Rajaratnam.) *Critical exponents of graphs*, Journal of Combinatorial Theory, Series A 139:30–58, 2016.

(24) *Faces and maximizer subsets of highest weight modules*, Journal of Algebra 455:32–76, 2016.

(25) (With Akaki Tikaradze.) *On Category \mathcal{O} over triangular generalized Weyl algebras*, Journal of Algebra 449:687–729, 2016.

(26) (With Peter Diao, Dominique Guillot, and Bala Rajaratnam.) *Differential calculus on graphon space*, Journal of Combinatorial Theory, Series A 133:183–227, 2015.

(27) (**Book**, with Anna Lachowska.) *Beautiful, Simple, Exact, Crazy: Mathematics in the Real World* (480 pp.), Yale University Press, 2015.

(28) (*Invited survey article*, peer-reviewed.) Representations of complex semi-simple Lie groups and Lie algebras, in *Connected at Infinity II: A Selection of Mathematics by Indians* (Rajendra Bhatia, Conjeevaram S. Rajan, and Ajit I. Singh, Eds.), TRIM, Hindustan Book Agency, pp. 85–129, 2013.

(29) (With Wee Liang Gan.) *Quantized symplectic oscillator algebras of rank one*, Journal of Algebra 310(2):671–707, 2007.

Submitted:

(30) (With G. Krishna Teja.) *A weight-formula for all highest weight modules, and a higher order parabolic category \mathcal{O}* (2022), arXiv:math.RT/2203.05515.

(31) (With Alexander Belton, Dominique Guillot, and Mihai Putinar.) *Negativity-preserving transforms of tuples of symmetric matrices* (2023), arXiv:math.CA/2310.18041.

(32) (With Jacob P. Matherne, and Avery St. Dizier.) *Log-concavity of characters of parabolic Verma modules, and of restricted Kostant partition functions* (2025), arXiv:math.RT/2504.01623.

(33) (With Prateek K. Vishwakarma.) *Cholesky decomposition for symmetric matrices, Riemannian geometry, and random matrices* (2025), arXiv:math.RA/2508.02715.

(34) (With Hong Chen and Siddhartha Sahi.) *Majorization via positivity of Jack and Macdonald polynomial differences* (2025), arXiv:math.CO/2509.19649.

PROFESSIONAL SERVICE*A. EDITORIAL*

- Associate Editor, American Mathematical Monthly Sep 2024 – present
- Associate Editor, Linear Algebra and its Applications 2023 – present
- Editor, Acta Scientiarum Mathematicarum (Szeged) 2022 – present
- Editor, Indian Journal of Pure and Applied Mathematics 2020 – present
- Editor of “Texts and Readings in Mathematics” (TRIM) Series, Hindustan Book Agency 2018 – present
- Associate Editor, São Paulo Journal of Mathematical Sciences 2018 – present
- Guest Editor, Journal of Algebraic Combinatorics 2026
(Special issue in honor of Vyjayanthi Chari’s 65th birthday)

- Guest Editor, Indian Journal of Pure and Applied Mathematics (Tribute volume in memory of K.R. Parthasarathy: Volume 55 issue 3) 2024
- Guest Editor, Journal of Indian Institute of Science (Special volume on “Number Theory and Representation Theory”: Volume 102 issue 3) 2022
- Editor, Linear and Multilinear Algebra Jan 2020 – Dec 2022
- Proceedings Editor, Volume 80B, Séminaire Lotharingien de Combinatoire 2018

B. OTHER

- Board of Directors, International Linear Algebra Society Mar 2021 – Feb 2024

C. REFEREEING (including *quick opinion)

- Transactions of the American Math. Society
- International Math. Research Notices IMRN
- Forum of Mathematics, Sigma*
- Journal of the London Math. Society*
- Israel Journal of Mathematics
- Journal of Functional Analysis
- Journal of Combinatorial Theory Series A
- European Journal of Combinatorics*
- Journal of Geometric Analysis
- Mathematische Zeitschrift
- Journal of Algebra
- SIAM Journal on Discrete Mathematics
- Bulletin of the London Mathematical Society
- Proceedings of the American Math. Society
- Pacific Journal of Mathematics
- Kyoto Journal of Mathematics
- Journal of Non-commutative Geometry
- Journal of Pure and Applied Algebra
- Linear Algebra and its Applications
- Letters in Mathematical Physics
- AMS Contemporary Mathematics
- Journal of Algebraic Combinatorics*
- Indian J. Pure and Applied Math.
- FPSAC (Sem. Loth. Combin.)
- Discrete Mathematics
- Linear and Multilinear Algebra
- Communications in Algebra
- Algebras and Representation Theory
- Acta Mathematica Hungarica
- Journal of Algebra and its Applications
- Computational and Applied Math.*
- Results in Mathematics*
- Operators and Matrices
- Electronic Journal of Linear Algebra
- Bulletin of the Iranian Math. Society
- Open Mathematics
- Resonance
- American Math. Monthly

D1. CONFERENCE AND SEMINAR ORGANIZATION

- 2019 – present Organizer: Eigenfunctions Seminar, Indian Institute of Science.
- 2019 – present Co-organizer: APRG Seminar, Indian Institute of Science.
- 2018 – present Co-organizer: Algebra & Combinatorics Seminar, Indian Institute of Science.
- 2021 – 2022 Co-organizer: ARCSIN Seminar, IISc–IIT Kanpur–IMSc.

D1. CONFERENCE AND SEMINAR ORGANIZATION (cont.)

Jan 12–16, 2026	<i>Conference:</i> First Indo–European Conference in Mathematics: Symposium on Positivity and Matrix Analysis, Savitribai Phule Pune University (SPPU) and Indian Institute of Science Education and Research (IISER). <i>Co-organizer:</i> Alexander Belton (U. Plymouth).
Nov 30–Dec 5, 2025	<i>Conference:</i> BIRS–CMI Workshop on Quivers in Representation Theory, Chennai Mathematical Institute. <i>Co-organizers:</i> T. Brüstle (Univ. Sherbrooke and Bishop’s Univ.), A. Kuber (IIT Kanpur), and S. Srivastava(IIT Dharwad).
Jul 28–Aug 1, 2025	<i>Conference:</i> Third joint SIAM/CAIMS annual meetings (AN25), Montréal: Member of the Organizing Committee. <i>Organizing Co-chairs:</i> Sue Ann Campbell (U. Waterloo) and Arvind K. Saibaba (NC State Univ.).
Jun 23–27, 2025	<i>Conference:</i> Mini-symposium on Total positivity, International Linear Algebra Society (ILAS) Meeting, Kaohsiung. <i>Co-organizer:</i> Projesh Nath Choudhury (IIT Gandhinagar).
Nov 13–24, 2023	<i>Conference:</i> Algebraic and Combinatorial Methods in Representation Theory (in honour of Vyjayanthi Chari’s 65th birthday), ICTS Bangalore: Member of the Scientific Committee. <i>Organizers:</i> B. Ravinder (IIT Tirupati), R. Venkatesh (IISc Bangalore), and S. Viswanath (IMSc Chennai).
Jul 24–28, 2023	<i>Conference:</i> Workshop on “Theory and applications of total positivity” (supported by the AIM and NSF), American Institute of Mathematics. <i>Co-organizers:</i> Dominique Guillot (U. Delaware) and Shaun Fallat (U. Regina).
Jun 20–24, 2022	<i>Conference:</i> Invited Mini-symposium on Distance matrices of graphs, with funding for an LAA Early Career speaker, International Linear Algebra Society (ILAS) Meeting, Galway. <i>Co-organizer:</i> Projesh Nath Choudhury (IISc Bangalore).
Sep 17–18, 2021	<i>Conference:</i> Joint Mathematics Symposium with IISER Pune (virtual). <i>Co-organizers:</i> Chandrasheel Bhagwat and Tejas Kalekar (IISER Pune) and Vamsi Pritham Pingali (IISc Bangalore).
Jul 29–30, 2021	<i>Conference:</i> Farewell Symposium for Dilip P. Patil, Indian Instt. of Science. <i>Co-organizers:</i> Ravi A. Rao (NMIMS, Mumbai), Jugal K. Verma (IIT Bombay), Kriti Goel (IIT Gandhinagar), Shreedevi Masuti (IIT Dharwad), and R. Venkatesh (IISc Bangalore).
Jul 16–20, 2018	<i>Conference:</i> 30th International Conference on Formal Power Series and Applications (FPSAC), supported by the NSF, Dartmouth College. <i>Co-organizers:</i> See the conference website.
Jul 24–28, 2017	<i>Conference:</i> Invited Mini-symposium on Linear Algebra and Positivity with Applications to Data Science, with funding for an LAA Early Career speaker, International Linear Algebra Society (ILAS) Meeting, Ames. <i>Co-organizers:</i> Dominique Guillot (U. Delaware) and Bala Rajaratnam (UC Davis).

D1. CONFERENCE AND SEMINAR ORGANIZATION (cont.)

Jan 13, 2015	<i>Conference:</i> AMS Special Session on Positivity and Matrix Inequalities, AMS–MAA Joint Mathematics Meetings, San Antonio. <i>Co-organizers:</i> Dominique Guillot and Bala Rajaratnam (Stanford).
Jan 12, 2015	<i>Conference:</i> AMS Special Session on Limits of Discrete Structures, AMS–MAA Joint Mathematics Meetings, San Antonio. <i>Co-organizers:</i> Peter Diao, Dominique Guillot, and Bala Rajaratnam (Stanford).
Oct 13–17, 2014	<i>Conference:</i> Workshop on “Positivity, graphical models, and modeling of complex multivariate dependencies” (supported by the AIM and NSF), American Institute of Mathematics. <i>Co-organizers:</i> Dominique Guillot and Bala Rajaratnam (Stanford) and Hélène Massam (York University).
Feb 1–2, 2014	<i>Conference:</i> Lie Theory Workshop on Quantum Groups (supported by the NSF and Stanford), Stanford University. <i>Co-organizers:</i> Daniel Bump and Persi Diaconis (Stanford).
May 26–27, 2012	<i>Conference:</i> Young Researchers Meet (Mathematics and Computer Science), Stanford University. <i>Co-organizer:</i> Govindan Rangarajan (IISc Bangalore).
Feb 4–5, 2012	<i>Conference:</i> Lie Theory Workshop on Quantum Groups (supported by the NSF and Stanford), Stanford University. <i>Co-organizers:</i> Daniel Bump (Stanford) and Anne Schilling (UC Davis).
2009	Co-organized the Lie Theory Seminar at the Univ. of California at Riverside.
2001–02	Co-organized a weekly graduate student seminar, University of Chicago.

D2. WORKSHOPS ORGANIZED (PRIMARILY) FOR STUDENTS

Jun 19–Jul 8, *NCM Advanced Instructional School* on Lie Groups and Lie Algebras, supported by the NBHM, Indian Institute of Science.
 2023 *Co-organizer:* R. Venkatesh (IISc Bangalore).

Apr 30–May 1, *Symposium* on Combinatorics and Probability,
 2022 Indian Statistical Institute Kolkata. (Co-organizer.)

TEACHING AND MENTORING

A. MENTORING EXPERIENCE

Indian Institute of Science, Bangalore *2017 – present*

- Advisor to 4 Mathematics PhD students (3 graduated).
- Mentored 13 Postdocs (NBHM/NPDF/CV Raman/other) and INSPIRE Faculty Fellows.

Stanford University, Stanford *2011 – 2017*
Mentored graduate/undergraduate students at Stanford, including:

- Mathematics PhD student of Bala Rajaratnam at Stanford (*2012 – 2016*).
- Mathematics PhD student of Vyacheslav Futorny at Universidad de São Paulo (*Spring–Summer 2016*).
- MS student, in Independent Study in Probability (*Spring 2014*).

Yale University, New Haven *2009 – 2011*
Mentored undergraduate Math Majors.

University of California at Riverside, Riverside 2006 – 2009
 Mentored graduate students through and outside of the Lie Theory Seminar (and undergrads).

University of Chicago, Chicago 2000 – 2006
 Directed Reading Program: Mentored undergraduate students on selected topics in:
 (a) elementary number theory (including Möbius functions on partially ordered sets), and
 (b) the Banach–Tarski Paradox and related topics.

B. GRADUATE TEACHING EXPERIENCE

Indian Institute of Science: Faculty in Mathematics 2017 – present
 • *Math 212*: Algebra I
 • *Math 219*: Linear Algebra
 • *Math 220*: Representation theory of finite groups
 • *Math 221*: Analysis I: Real Analysis
 • *Math 315*: Representation theory of Lie algebras
 • *Math 341*: Matrix Analysis and Positivity (**new course**: developed and taught at IISc)

Stanford University: Research Associate in Mathematics and Statistics 2011 – 2017
 • *Stats 217*: Introduction to Stochastic Processes (multiple years)

University of California at Riverside: Visiting Assistant Professor (Math.) 2006 – 2009
 • Fall 2008: Designed and taught a **mini-course**: Quivers, with a view toward Gabriel's theorem

C. UNDERGRADUATE TEACHING EXPERIENCE

Indian Institute of Science: Faculty in Mathematics 2017 – present
UM102: Analysis and Linear Algebra II
Stanford University: Research Associate in Mathematics and Statistics 2011 – 2017
Math 16 (cross-listed as *Stats 90*): Mathematics and Statistics in the Real World
 (developed and proposed at Stanford, co-taught with Bala Rajaratnam)
Stats 116: Theory of Probability (SCPD course with video streaming)

Book: Co-authored a Course Book (for *Yale Math. 107*) with Anna Lachowska: Aug 2015
Beautiful, Simple, Exact, Crazy: Mathematics in the Real World, Yale University Press.

Yale University: Lecturer in Mathematics 2009 – 2011
Math. 107: Mathematics in the Real World (**new course**: developed and taught at Yale)
Math. 115a: Integral Calculus
Math. 118: Introduction to Functions of Several Variables
Math. S120: Calculus – Several Variables (Summer Session)
Math. 120: Calculus – Several Variables (Special Section with Mathematica)
Math. 225a: Linear Algebra and Matrix Theory
Math. 370: Fields and Galois Theory

University of California at Riverside: Visiting Assistant Professor (Math.) 2006 – 2009
Math. 8B: Introduction to College Mathematics for Science
Math. 9B, 9C: First Year Calculus
Math. 10A, 10B: Calculus: Several Variables
Math. 23: Applied Matrix Algebra
Math. 46: Ordinary Differential Equations
Math. 132: Linear Algebra – II

University of Chicago, Lecturer in Mathematics:

2002 – 2006

Math. 151, 152, 153: Calculus – I, II, III

Math. 195, 196: Mathematical Methods for the Social Sciences – I, II

TALKS AT CONFERENCES/WORKSHOPS

Jan 8, 2026	Workshop on Non-Commutative Analysis and Probability, Indian Institute of Science
Dec 22, 2025	International conference on Frontiers in Mathematical Sciences: Theory, Applications and Innovations, University of North Bengal, Siliguri
Dec 18, 2025	International Conference on Linear Algebra and its Applications (ICLAA), Centre for Advanced Research in Applied Mathematics and Statistics (CARAMS), Manipal Academy of Higher Education (MAHE), Manipal
Nov 25, 2025	Indian Statistical Institute Kolkata: INSA–IMU Colloquium 2025
Oct 26, 2025	AMS Fall Eastern Virtual Sectional Meeting: Special Session on Notions of Positivity, Preserving Transforms, and Inequalities
Sep 12, 2025	National conference on Emerging trends of mathematical analysis and applications, University of Kalyani
Jul 15, 2025	International Workshop on Operator Theory and its Applications (IWOTA), University of Twente, Enschede, Netherlands: Special Session on Matrix theory and linear algebra I
Jun 23, 2025	International Linear Algebra Society (ILAS) 2025 Meeting, National Sun Yat-sen University, Kaohsiung, Taiwan: Mini-symposium on Total Positivity
Jun 16, 2025	TIFR Centre for Applicable Mathematics (CAM): Summer Programme 2025: Special Lecture
May 22, 2025	Workshop (online) on Recent trends in linear algebra and applications, National Institute of Technology (NIT) Calicut
May 11, 2025	Indian Institute of Technology – Indian School of Mines (IIT-ISM) Dhanbad: Workshop (online) on Theoretical, Algorithmic, and Spectral approaches in Graph Theory
Feb 7, 2025	International conference on Recent Trends in Mathematics and Statistics, Kavayitri Bahinabai Chaudhari North Maharashtra University (Jalgaon): Keynote address
Jan 19, 2025	SRM University AP: 3rd conference on Recent advances in Mathematics and related areas
Dec 16–21, 2024	NCM Advanced Instructional School on Representation theory of quivers and BGG Category \mathcal{O} for semisimple Lie algebras, IIT Kanpur: Mini-course on Category \mathcal{O} (with notes and videos)
Dec 13, 2024	International workshop on Combinatorial Methods in Enumerative Algebra, International Centre for Theoretical Sciences (ICTS) Bangalore
Nov 5, 2024	Workshop on Applied Matrix Positivity II, ICMS, Edinburgh, Scotland
Oct 28, 2024	Conference on probability theory (in honor of Rahul Roy's superannuation), Indian Statistical Institute at Delhi

TALKS AT CONFERENCES/WORKSHOPS (cont.)

Jun 11, 2024 International Conference on Lie Algebra and Number Theory (ICLANT), NIT Calicut, **Keynote lecture**

Jun 10, 2024 International Conference on Discrete Mathematics, Savitribai Phule Pune University (Pune), **Plenary talk**

Dec 24, 2023 89th Annual Conference, Indian Mathematical Society (BITS Pilani at Hyderabad): **A.K. Agarwal Award Lecture**

Dec 21–23, 2023 National Centre for Mathematics Workshop on Matrix Theory, Panjab University, Chandigarh

Dec 18, 2023 International Conference on Linear Algebra and its Applications (ICLAA), Centre for Advanced Research in Applied Mathematics and Statistics (CARAMS), Manipal Academy of Higher Education (MAHE), Manipal

Nov 17, 2023 Workshop on Tensor Computation and Machine Learning, IISc Bangalore

Oct 25, 2023 Oppenheim Workshop on Random Systems, Institute for Mathematical Sciences (IMS), National University of Singapore

Oct 9, 2023 2nd International Conference on Mathematical Analysis and Applications in Modeling (ICMAAM), Jadavpur University, Kolkata: **Plenary talk**

Jul 24, 2023 American Institute of Mathematics: Workshop on “Theory and applications of total positivity”

Jun 19–24, 2023 NCM Advanced Instructional School on Lie Groups and Lie Algebras, IISc Bangalore

Jun 15,16, 2023 Presidency University, Bangalore: International Workshop on Combinatorial methods in graph theory – two lectures

May 8, 2023 Mathematical Sciences Institute (ANU Canberra): Workshop on Braids: Algebra and Geometry

Mar 9–11, 2023 National Centre for Mathematics Workshop on Operator Theory and Operator Algebra, Indian Institute of Technology (IIT) Gandhinagar

Feb 14, 2023 **Workshop on Popular Mathematics**, Indian Institute of Technology (IIT) Madras: Lecture 2

Feb 13, 2023 **Workshop on Popular Mathematics**, Indian Institute of Technology (IIT) Madras: Lecture 1

Jan 4, 2023 AMS Joint Mathematics Meetings (Boston, USA): **ILAS Invited Address (Plenary)**

Dec 28, 2022 88th Annual Conference, Indian Mathematical Society (BIT Mesra, Ranchi): **Hansraj Gupta Memorial Award Lecture**

Dec 10, 2022 Indian Women and Mathematics (VNIT, Nagpur): Regional Workshop on Research and Opportunities

Oct 10, 2022 Karnataka State Higher Education Academy (KSHEA): Continuous Wholistic Training Program in Mathematics

TALKS AT CONFERENCES/WORKSHOPS (cont.)

Aug 24, 2022 Jain College Bangalore (with The Indian Mathematics Consortium): Faculty Development Programme on *Algebra, Geometry and Graph Theory: Emerging Interconnections*

Jul 21, 2022 International conference on ‘Formal Power Series and Algebraic Combinatorics’ (33rd FPSAC, *Satellite of ICM-2022*), Indian Institute of Science, Bangalore: **Invited (Plenary) talk**

Jun 22, 2022 International Linear Algebra Society (ILAS) Meeting, National University of Ireland, Galway: Mini-Symposium on General Preservers

May 18–21, 2022 NCM Advanced Instructional School on Advanced Linear Algebra, Indian Statistical Institute at Bangalore

Apr 21, 2022 Kerala School of Mathematics: 2nd conference on **Recent advances in Mathematics and related areas**

Mar 17, 2022 Mathematisches Forschungsinstitut Oberwolfach: Workshop on The Laguerre–Pólya Class and Combinatorics

Dec 17, 2021 International Conference on Linear Algebra and its Applications (ICLAA), Centre for Advanced Research in Applied Mathematics and Statistics (CARAMS), Manipal Academy of Higher Education (MAHE), Manipal

Dec 7, 2021 4th BRICS Mathematics Conference, Indian Institute of Science Education and Research (IISER) Thiruvananthapuram: **Invited talk**

Aug 5, 2021 36th Annual Conference, Ramanujan Mathematical Society (Amrita University, Coimbatore): **Invited talk (Semiplenary)**

Jul 19, 2021 Workshop on Applied Matrix Positivity, ICMS, Edinburgh, Scotland

Jul 2021 8th **Asian Mathematical Conference** (Ha Long, Vietnam): Special Section: Mathematical Analysis [*cancelled due to CoVid-19 pandemic*]

Jul 2021 3rd Math Days in Sofia, Bulgarian Acad. Sci., Sofia, Bulgaria: Mini-Symposium on Hausdorff Geometry of Polynomials [*cancelled due to CoVid-19 pandemic*]

Sep 23, 2020 TEQIP Course: Matrix Analysis and its Applications, Ambedkar National Institute of Technology (Jalandhar)

Sep 18, 2020 UGC Course: Symmetry in Science and Engineering, Mumbai University

Dec 16, 2019 Discussion Meeting in Representation Theory, Indian Institute of Science

Nov 17, 2019 6th India Taiwan Conference on Discrete Mathematics, IIT-Varanasi (BHU)

Oct 20, 2019 2nd Conference on Functional Analysis, Indian Institute of Technology (IIT) Bombay

Sep 10, 2019 8th MAT TRIAD: International Conference on Matrix Analysis and its Applications, Liblice, Czech Republic: Special session on total positivity

Jul 16, 2019 8th International Conference on Matrix Analysis and Applications (ICMAA), University of Nevada at Reno, USA

Jul 9, 2019 International Linear Algebra Society (ILAS) Meeting, Rio de Janeiro, Brazil: **Plenary talk – LAMA Lecturer**

TALKS AT CONFERENCES/WORKSHOPS (cont.)

Dec 19, 2018 Operator Theory and Operator Algebras (4th OTOA), Indian Statistical Institute at Bangalore

Dec 7, 2018 Indian Academy of Sciences Discussion Meeting on Linear Analysis, Evolve Back (formerly Orange County Hotel), Coorg

Dec 5, 2018 Algebras, Combinatorics, and Representation Theory, Indian Institute of Science Education and Research (IISER) Thiruvananthapuram

Aug 27, 2018 **ICM Satellite Conference:** Algebras, Representations and Applications, Cusco, Peru

Jun 8,9, 2018 Two motivating guest lectures, in the Training Program in Mathematics, National Institute of Science Education and Research (Bhubaneswar)

Mar 8,10, 2018 Advanced Training in Mathematics Workshop, on Modern Aspects of Function Theory, Operator Theory, and Operator Algebras, Indian Statistical Institute at Bangalore

Jan 9, 2018 3rd Indo–Russian Joint Conference in Statistics and Probability, Indian Institute of Science

Oct 15, 2017 1st Conference on Functional Analysis, Indian Institute of Technology (IIT) Bombay

Jul 28, 2017 2nd **Mathematical Congress of the Americas** (Montréal, QC): Special Session on Representations of Lie Algebras

Jul 24, 2017 International Linear Algebra Society (ILAS) Meeting, Iowa State University: Mini-Symposium on Representation Theory

Jan 4, 2017 AMS–MAA Joint Mathematics Meetings (Atlanta, GA): Special Session on Gaussian Graphical Models and Combinatorial Algebraic Geometry

Jan 6, 2016 AMS–MAA Joint Mathematics Meetings (Seattle, WA): Special Session on Interactions between Noncommutative Algebra, Algebraic Geometry, and Representation Theory

Oct 27, 2015 SIAM Conference on Applied Linear Algebra (Atlanta, GA): Minisymposium on “Generalizations of Positive Matrices”

Oct 3, 2015 AMS Central Fall Sectional Meeting (Loyola University, Chicago): Special Session on Algebraic Statistics and its Interactions with Combinatorics, Computation, and Network Science

May 2, 2015 30th Bay Area Discrete (BAD) Math Day, Bay View Academy, Monterey, CA

Jan 13, 2015 AMS–MAA Joint Mathematics Meetings (San Antonio, TX): Special Session on Positivity and Matrix Inequalities

Jan 12, 2015 AMS–MAA Joint Mathematics Meetings (San Antonio, TX): Special Session on Limits of Discrete Structures

Jan 10, 2015 AMS–MAA Joint Mathematics Meetings (San Antonio, TX): Special Session on Algebraic Combinatorics and Representation Theory

Oct 13, 2014 American Institute of Mathematics: Workshop on “Positivity, graphical models, and modeling of complex multivariate dependencies”

TALKS AT CONFERENCES/WORKSHOPS (cont.)

Sep 20, 2014 AMS Central Fall Section Meeting (University of Wisconsin at Eau Claire): Special Session on Lie Algebras and Representation Theory

Jun 7, 2013 International Linear Algebra Society (ILAS) Meeting (Providence, RI)

May 16, 2010 Young Researchers Meet, Brown University

Apr 11, 2010 AMS Spring Central Section Meeting (Macalester College, St. Paul): Special Session on Hecke Algebras and Deformations in Geometry and Topology

Nov 7, 2009 AMS Fall Western Section Meeting (University of California at Riverside): Special Session on Representation Theory

Jul 2, 2008 Institut Fourier at Grenoble: Graduate Student Seminar, 2008 Summer School on Geometric Methods in Representation Theory

May 3, 2008 AMS Spring Western Section Meeting (Claremont McKenna College): Special Session on Hopf Algebras and Quantum Groups

Mar 29, 2008 AMS Spring Southeastern Section Meeting (Louisiana State University at Baton Rouge): Special Session on Geometric and Combinatorial Representation Theory

May 9, 2007 Workshop on Representation Theory and Geometry, University of California at Berkeley

Nov 4, 2006 AMS Fall Southeastern Section Meeting (University of Arkansas at Fayetteville): Special Session on Combinatorial Representation Theory

May 27, 2006 Graduate Student Conference on Algebra And Representation Theory, Kansas State University at Manhattan

POSTER PRESENTATIONS

Jul 17, 2018 International conference on ‘Formal Power Series and Algebraic Combinatorics’ (30th FPSAC), Dartmouth College, Hanover: Poster presentation (Session B)

Jul 16, 2018 International conference on ‘Formal Power Series and Algebraic Combinatorics’ (30th FPSAC), Dartmouth College, Hanover: Poster presentation (Session A)

Jul 4, 2016 International conference on ‘Formal Power Series and Algebraic Combinatorics’ (28th FPSAC), Vancouver, BC: Poster presentation

TALKS AT BIRTHDAY CONFERENCES

Nov 12, 2025 International Conference on Analysis, Discrete Mathematics, and Applications (in honour of S.B. Nimse’s 75th birthday), NACS College (Ahilyanagar)

Feb 3, 2025 Representations of groups and algebras (in honour of K.N. Raghavan’s 60th birthday), Institute of Mathematical Sciences (Chennai)

Oct 24, 2024 Noncommutative Mathematics and Applications (in honour of Kalyan B. Sinha’s 80th birthday), Indian Statistical Institute at Bangalore

Nov 29, 2023 International Conference on Spectral and Approximation Theory (in honour of M.N.N. Namboodiri’s 70th birthday), Cochin University of Science And Technology (CUSAT)

TALKS AT BIRTHDAY CONFERENCES (cont.)

Nov 22, 2023 Algebraic and Combinatorial Methods in Representation Theory (in honour of Vyjayanthi Chari's 65th birthday), International Centre for Theoretical Sciences (ICTS) Bangalore

Nov 26, 2022 Operator Theory and Complex Geometry (in honour of Gadadhar Misra's 65th birthday), Indian Institute of Science Education and Research (IISER) Kolkata

Dec 27, 2019 Conference on Linear Algebra and its Applications (in honour of Ravindra B. Bapat's 65th birthday and retirement), Indian Statistical Institute at Delhi

Dec 12, 2019 KBS Fest: Conference in honour of Kalyan B. Sinha's 75th birthday, Indian Statistical Institute at Bangalore

Jun 22, 2018 Analysis and Applications: Conference in honour of Sudhir H. Kulkarni's 65th birthday, Indian Institute of Technology (IIT) Chennai

Nov 30, 2017 Matrix and functional analysis: Conference in honour of Rajendra Bhatia's 65th birthday, Ambedkar National Institute of Technology (Jalandhar)

Oct 2, 2015 International Conference on Groups, Rings, Group Rings, and Hopf Algebras (celebrating the 75th birthday of Donald S. Passman), Loyola University, Chicago

Dec 17, 2014 International Conference on “Infinite Dimensional Lie Theory and its Applications” (in honour of S. Eswara Rao's 60th birthday), Harish-Chandra Research Institute, Allahabad

May 19, 2005 Conference on “Lie Algebras, Vertex Operator Algebras and their Applications”: in honor of Robert L. Wilson and James Lepowsky (on their 60th birthdays), North Carolina State University at Raleigh

COLLOQUIA, JOINT SEMINARS, ANNUAL DAY TALKS, ETC.

Dec 5, 2025 Indian Institute of Technology (IIT) Madras: Colloquium

May 15, 2025 Tata Institute of Fundamental Research: 5th Aveek Guha Memorial Lecture of the Alumni Association

Apr 9, 2025 Indian Institute of Technology (IIT) Bombay: Colloquium

Apr 4, 2025 Indian Institute of Science Education and Research (IISER) Pune: Colloquium

Apr 3, 2025 Tata Institute of Fundamental Research: Mathematics Colloquium

Feb 3, 2025 Indian Institute of Technology (IIT) Jammu: Colloquium

Dec 23, 2024 Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore: *7th Srinivasa Ramanujan Memorial Oration*, on National Mathematics Day

Dec 23, 2024 Indian Institute of Technology (IIT) Roorkee: National Mathematics Day Lecture

Feb 1, 2024 Indian Institute of Technology (IIT) Kanpur: Colloquium

Jan 30–Feb 1, 2024 Indian Institute of Technology (IIT) Kanpur: Harish-Chandra birth centenary lecture series

Dec 22, 2023 Joint between (a) Chapters of NASI, INSA, & INYAS North Central Zone, (b) Society of Promotion of Science & Technology in India (SPSTI), and (c) Amity University Punjab: National Mathematics Day Lecture

COLLOQUIA, JOINT SEMINARS, ANNUAL DAY TALKS, ETC. (cont.)

Dec 22, 2023 Indian Institute of Science Education and Research (IISER) Mohali: National Mathematics Day Lecture

Dec 20, 2023 Panjab University, Chandigarh: 6th Sarvadaman Chowla Memorial Lecture

May 11, 2023 University of Queensland, Brisbane: Maths Colloquium

Apr 28, 2023 Mathematical Sciences Institute (ANU Canberra): Public Lecture

Apr 13, 2023 Mathematical Sciences Institute (ANU Canberra): Colloquium

Mar 17, 2023 University of Toledo: Colloquium

Feb 15, 2023 Indian Institute of Technology (IIT) Madras: Colloquium

Jul 8, 2022 Indian Academy of Sciences Mid-Year Meeting (IISc Bangalore): Inaugural Fellows' Lecture

Jan 5, 2022 Institute of Mathematics Research and Training (IMRT): 2nd K.S.S. Nambooripad Endowment Lecture

Oct 29, 2021 National Institute of Science Education and Research (NISER) Bhubaneswar: Colloquium

Oct 20, 2021 Indian Institute of Technology (IIT) Gandhinagar: Mathematics Discipline Seminar

Feb 20, 2021 Indian Institute of Technology (IIT) Roorkee: Research Scholars' Day

Jan 15, 2021 Indian Institute of Science Education and Research (IISER) Pune: Colloquium

Sep 28, 2020 International Centre for Theoretical Sciences: ICTS monthly colloquium

Feb 29, 2020 Indian Institute of Science Education and Research (IISER) Kolkata: Annual Math-Stat Departmental Symposium

Jan 29, 2020 Drexel University: Colloquium

Oct 17, 2019 Delhi University: Colloquium

Sep 20, 2019 Cochin University of Science and Technology (CUSAT): 20th Professor Wazir Hasan Abdi Memorial Lecture

Apr 17, 2019 Chennai Mathematical Institute: Colloquium

Apr 4, 2019 Indian Institute of Technology (IIT) Kanpur: Math-Stat Colloquium

Mar 12, 2019 TIFR Centre for Applicable Mathematics (CAM): Colloquium

Nov 22, 2018 The Institute of Mathematical Sciences, Chennai: Colloquium (two hours)

Jul 12, 2018 City University of New York: Joint NY Group Theory and NY Combinatorics Seminar

May 16, 2018 Indian Institute of Technology (IIT) Bombay: Colloquium

May 16, 2018 International Mathematical Olympiad Training Camp (Homi Bhabha Centre for Science Education, Mumbai): Valedictory Day Lecture

May 10, 2018 Indian Statistical Institute at Bangalore: Colloquium

Oct 17, 2017 Tata Institute of Fundamental Research: STCS Colloquium

COLLOQUIA, JOINT SEMINARS, ANNUAL DAY TALKS, ETC. (cont.)

Nov 27, 2013 Indian Statistical Institute at Bangalore: Colloquium
 Oct 18, 2013 DePaul University: Colloquium
 Apr 5, 2013 University of Toledo: Colloquium
 Feb 18, 2011 Iowa State University; Colloquium
 Sep 9, 2009 Institute of Mathematical Sciences (Chennai): Colloquium

SELECTED TALKS (other, after 2008)

Sep 26, 2025 Illinois Institute of Technology, Chicago: Discrete Applied Math Seminar
 Jul 17, 2025 University of Maryland Baltimore County: Summer Seminar
 May 8, 2025 Maths Circle India (ICTS): Lecture to high school students: Invited 2-hour talk
 May 6, 2025 Indian Institute of Science: IISc–Agastya Science Enrichment Program for high school students
 Feb 8, 2025 Chennai Mathematical Institute: STEMS Camp for high school students: Invited 75-minute talk
 Jul 30, 2024 Mathematical Sciences Institute, Belagavi: Symposium in memory of Krishna B. Athreya
 Jul 17, 2024 North Carolina State University: Algebra and Combinatorics Seminar
 Jul 15, 2024 George Washington University: Combinatorics and Algebra Seminar
 May 14, 2024 ETH Zürich: DACO Seminar
 May 8, 2024 University of Exeter: Exeter Number Theory, Algebra and Geometry Seminar
 Apr 29, 2024 University of Plymouth: Plymouth Pure Maths Seminar
 Jan 25, 2024 Indian Statistical Institute at Delhi: Stat–Math Unit special seminar
 Jan 22, 2024 ISI Bangalore Math Club: Special Lecture
 Nov 17, 2023 Maths Circle India (ICTS): Lecture to high school students: Invited 2-hour talk
 Oct 20, 2023 National University of Singapore, Representation Theory and Number Theory Seminar
 Oct 16, 2023 National University of Singapore, Seminar
 May 31, 2023 IISc Bangalore: PROMYS India – Guest Lecture
 Apr 28, 2023 Mathematical Sciences Institute (ANU Canberra): PDE & Analysis Seminar
 Apr 18, 2023 Mathematical Sciences Institute (ANU Canberra), Algebra & Topology Seminar
 Apr 14, 2023 University of Melbourne: Pure Mathematics Student Seminar
 Apr 11, 2023 Mathematical Sciences Institute (ANU Canberra), Algebra & Topology Seminar
 Apr 5, 2023 University of Otago, Dunedin: Mathematics Seminar
 Apr 3, 2023 University of Sydney: Algebra Seminar

SELECTED TALKS (other, after 2008) (cont.)

Jan 6, 2023 Université du Québec à Montréal: Séminaire du LaCIM

Jan 3, 2023 Northeastern University: Representation Theory and Related Topics (RTRT) Seminar

Sep 30, 2022 Università degli Studi di Roma “Tor Vergata”, ARTS (Algebra and Representation Theory Seminar)

Sep 26, 2022 Università degli Studi di Roma “La Sapienza”, Algebra and Geometry Seminar

Sep 2, 2022 Azim Premji University: Weekly Science Seminar for students

Aug 29, 2022 Cochin University of Science and Technology (CUSAT): Maths Seminar

Aug 4, 2022 Unofficial Indian Math Olympiad Training Camp: Invited 90-minute talk

May 20 and Jun 2, 2022 ARCSIN Seminar (Algebra, Representations, Combinatorics and Symmetric functions in INDia)

May 9, 2022 University of Georgia at Athens: Algebra Seminar

May 2, 2022 Ruhr Universität Bochum (Germany): Algebraic Lie Theory Seminar

May 19, 2021 Simion Stoilow Institute of Mathematics of the Romanian Academy (IMAR): Operator theory seminar

Mar 25, 2021 Universidad de São Paulo: LieJor online seminar

Mar 3, 2021 Webinars on Operator Theory and Operator Algebras

Feb 25, 2021 Indian Institute of Science Education and Research (IISER) Mohali: Analysis and Probability Seminar

Feb 14, 2021 Chennai Mathematical Institute: STEMS Camp for high school students: Invited 90-minute talk

Jan 20, 2021 Indian Statistical Institute at Delhi: Stat–Math Unit Seminar

Dec 12, 2020 St. Berchmans College, Webinar series in Mathematics: Prof. M.T. Kurian Memorial Lecture

Nov 18, 2020 Functional Analysis and Operator Theory Webinar

Nov 20, 2020 Indian Institute of Technology (IIT) Kharagpur: Seminar on Graphs, Matrices and Applications

Nov 12, 2020 Institute of Mathematical Sciences (Chennai): Algebraic Combinatorics Seminar

Sep 10, 2020 Ashoka University / IIT-Gandhinagar / JNU: Special Functions and Number Theory Seminar

Feb 7, 2020 University of Delaware: Discrete Mathematics Seminar

Feb 3, 2020 Temple University: Algebra Seminar

Jan 31, 2020 City University of New York: Harmonic Analysis and PDEs Seminar

Jan 29, 2020 University of Delaware: Inverse Problems and Analysis Seminar

Jan 21, 2020 University of Pennsylvania: CAGE: Philadelphia Area Combinatorics and Algebraic Geometry Seminar

SELECTED TALKS (other, after 2008) (cont.)

Nov 6, 2019 Indian Institute of Science: 1st Math Symposium of Infosys Young Investigators

Oct 22, 2019 Tata Institute of Fundamental Research: STCS Seminar

Jul 23, 2019 University of Maryland at College Park: Algebra–Number Theory Seminar

Jul 19, 2019 City University of New York: New York Combinatorics Seminar

Jul 18, 2019 Rutgers University: Lie Group/Quantum Mathematics Seminar

Jun 3, 2019 Indian Statistical Institute at Bangalore, LIMIT Camp for high school students: Invited 90-minute talk

Apr 17, 2019 Chennai Mathematical Institute: Seminar

Apr 12, 2019 Indian Institute of Science: Eigenfunctions Seminar (with Gautam Bharali)

Apr 5, 2019 Indian Institute of Technology (IIT) Kanpur: Seminar

Mar 29, 2019 Tata Institute of Fundamental Research: Maths Seminar

Sep 28, 2018 University of California at Los Angeles: Analysis and PDE Seminar

Jul 13, 2018 Massachusetts Institute of Technology: Combinatorics Seminar

Apr 6, 2018 University of Sydney: Algebra Seminar

Apr 5, 2018 University of Sydney: Research Seminar

Feb 2, 2018 Indian Institute of Science: Maths Seminar

Jan 15, 2018 Indian Institute of Science: Eigenfunctions Seminar (with Siddhartha Gadgil)

Dec 15, 2017 University of California at Los Angeles: Analysis and PDE Seminar

Dec 7, 2017 University of California at Berkeley: Combinatorics Seminar

Oct 16, 2017 Indian Institute of Science Education and Research (IISER) Pune: Two-hour Maths Seminar

Aug 18, 2017 Indian Institute of Science: Eigenfunctions Seminar (two hours)

May 18, 2017 University of California at Los Angeles: Combinatorics Seminar

May 17, 2017 California Institute of Technology: Combinatorics Seminar

May 4, 2017 Stanford University: Combinatorics Seminar

Apr 28, 2017 City University of New York: Representation Theory Seminar

Apr 28, 2017 City University of New York: New York Combinatorics Seminar

Apr 24, 2017 Bronx Community College: Math Meeting

Apr 18, 2017 Stanford University: Representation Theory Seminar

Apr 17, 2017 Stanford University: Analysis/PDE Seminar

Dec 8, 2016 Indian Institute of Science: Maths Seminar

May 19, 2016 University of California at Santa Barbara, Algebra Seminar

Nov 23, 2015 University of Pennsylvania: CAGE: Philadelphia Area Combinatorics and Algebraic Geometry Seminar

Nov 20, 2015 Rutgers University, Lie Theory/Quantum Mathematics Seminar

SELECTED TALKS (other, after 2008) (cont.)

Nov 18, 2015 University of Delaware, Inverse Problems and Analysis Seminar

Oct 23, 2015 Northeastern University, Representation Theory and Related Topics (RTRT) Seminar

Oct 21, 2015 University of Massachusetts at Amherst, Representation Theory Seminar

Oct 20, 2015 Brandeis University, Combinatorics Seminar

Oct 1, 2015 University of Chicago, Scientific and Statistical Computing Seminar

Sep 30, 2015 DePaul University: Algebra, Combinatorics, and Number Theory Seminar

Sep 28, 2015 University of Illinois at Chicago: Combinatorics Seminar

Apr 22, 2015 San Francisco State University: Algebra-Geometry-Combinatorics Seminar

Dec 15, 2014 Indian Institute of Technology (IIT), Mumbai: Algebraic Groups Seminar

Nov 19, 2014 University of California at Berkeley: Representation Theory Special Seminar

Sep 22, 2014 University of Wisconsin, Madison: Combinatorics Seminar

Dec 10, 2013 Tata Institute of Fundamental Research: Maths Seminar

Nov 28, 2013 Indian Institute of Science: Maths Seminar

Oct 17, 2013 Loyola University: Algebra and Combinatorics Seminar

Oct 16, 2013 University of Illinois at Chicago: Number Theory Seminar

Oct 15, 2013 University of Illinois at Urbana-Champaign: Algebra-Geometry-Combinatorics Seminar

Sep 3, 2013 University of Washington: Algebra and Algebraic Geometry Seminar

Apr 4, 2013 University of Toledo: Algebra Seminar

Jul 7, 2011 Indian Institute of Science Education and Research (IISER) Pune: Seminar

Jun 28, 2011 Indian Statistical Institute at Delhi: Maths Seminar

Nov 15, 2010 University of Michigan at Ann Arbor: Group theory, Number theory, and Representation theory seminar

Oct 14, 2010 University of California at Riverside: Lie Theory Seminar

Jan 8, 2010 Tata Institute of Fundamental Research: Maths Seminar

Dec 7, 2009 University of Michigan at Ann Arbor: Group theory, Number theory, and Representation theory seminar

Nov 20, 2009 Boston University: Special Geometry Seminar

Nov 16, 2009 University of Massachusetts at Amherst: Representation Theory Seminar

Nov 6, 2009 California Institute of Technology: Combinatorics and Lie Algebra Seminar

Oct 12, 2009 Yale University: Geometry, Symmetry, and Physics Seminar

Sep 10, 11, 2009 Institute of Mathematical Sciences (Chennai): Algebra Seminar

Sep 2, 2009 National Institute of Science Education and Research (NISER, Bhubaneswar, India): Special Seminar

Mar 9, 2009 University of Southern California: Algebra Seminar

SELECTED TALKS (other, after 2008) (cont.)

Dec 18, 2008 Tata Institute of Fundamental Research: Maths Seminar

Nov 24, 2008 University of Illinois at Chicago: Algebra Seminar

Oct 23, 2008 University of California at Riverside: Lie Theory Seminar

Sep 4, 2008 Rutgers University: Algebra Seminar

Sep 3, 2008 Yale University: Algebra and Lie Groups Seminar

Aug 29, 2008 Cornell University: Lie Groups Seminar

Jul 21, 2008 DePaul University: Algebra Seminar

Apr 4, 2008 University of California at Riverside: Commutative Algebra Seminar