

curriculum vitae
Apoorva Khare

*Analysis and Probability Research Group; and
Department of Mathematics
Indian Institute of Science
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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

Simons Associate of the ICTP (Trieste, Italy) *2025–27*

Shanti Swarup Bhatnagar Prize from CSIR, Govt. of India (Delhi) *2023+*

Fellow of the Indian Academy of Sciences (Bangalore) *2022+*

SwarnaJayanti Fellow of SERB and DST, Govt. of India (Delhi) *2020 – 2025*

Ramanujan Fellow of SERB, Govt. of India (Delhi) *2018 – 2023*

Young Investigator 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

Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany *Sep–Oct 2025*

International Centre for Mathematical Sciences, Edinburgh, UK *Nov 2024*

ETH Zürich, Zürich, Switzerland *May 2024*

University of Plymouth, Plymouth, UK *Apr–May 2024*

National University of Singapore, Singapore *Oct 2023*

SHORT ACADEMIC VISITS (cont.)

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

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*, 2019
 Cochin University of Science and Technology (CUSAT)
- *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 2014
 a workshop (with full funding for 31 participants) on “Positivity,
 graphical models, and modeling of complex multivariate dependencies”
- 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 2023
 (ILAS Invited Address) at 2023 Joint Mathematics Meetings in Boston, USA
- *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) 2019
 at ILAS 2019 in Rio, Brazil
- *Indian Institute of Science:* Travel Support Grant 2019
- *NSF and NSA (USA):* Travel Award for presenting a poster 2016
 at FPSAC 2016 in Vancouver, Canada
- *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, 1995, 1996
for securing first place in the Regional Mathematical Olympiads
- 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 2018, 2023
Chairs to showcase research in the IISc Annual Report
- *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)

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| <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 |
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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 *Conference:* 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). *Co-organizer:* Alexander Belton (U. Plymouth).
- Nov 30–Dec 5, 2025 *Conference:* BIRS–CMI Workshop on Quivers in Representation Theory, Chennai Mathematical Institute. *Co-organizers:* T. Brüstle (Univ. Sherbrooke and Bishop’s Univ.), A. Kuber (IIT Kanpur), and S. Srivastava (IIT Dharwad).
- Jul 28–Aug 1, 2025 *Conference:* Third joint SIAM/CAIMS annual meetings (AN25), Montréal: Member of the Organizing Committee. *Organizing Co-chairs:* Sue Ann Campbell (U. Waterloo) and Arvind K. Saibaba (NC State Univ.).
- Jun 23–27, 2025 *Conference:* Mini-symposium on Total positivity, International Linear Algebra Society (ILAS) Meeting, Kaohsiung. *Co-organizer:* Projesh Nath Choudhury (IIT Gandhinagar).
- Nov 13–24, 2023 *Conference:* Algebraic and Combinatorial Methods in Representation Theory (in honour of Vyjayanthi Chari’s 65th birthday), ICTS Bangalore: Member of the Scientific Committee. *Organizers:* B. Ravinder (IIT Tirupati), R. Venkatesh (IISc Bangalore), and S. Viswanath (IMSc Chennai).
- Jul 24–28, 2023 *Conference:* Workshop on “Theory and applications of total positivity” (supported by the AIM and NSF), American Institute of Mathematics. *Co-organizers:* Dominique Guillot (U. Delaware) and Shaun Fallat (U. Regina).
- Jun 20–24, 2022 *Conference:* Invited Mini-symposium on Distance matrices of graphs, with funding for an LAA Early Career speaker, International Linear Algebra Society (ILAS) Meeting, Galway. *Co-organizer:* Projesh Nath Choudhury (IISc Bangalore).
- Sep 17–18, 2021 *Conference:* Joint Mathematics Symposium with IISER Pune (virtual). *Co-organizers:* Chandrasheel Bhagwat and Tejas Kalelkar (IISER Pune) and Vamsi Pritham Pingali (IISc Bangalore).
- Jul 29–30, 2021 *Conference:* Farewell Symposium for Dilip P. Patil, Indian Instt. of Science. *Co-organizers:* 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 *Conference:* 30th International Conference on Formal Power Series and Applications (FPSAC), supported by the NSF, Dartmouth College. *Co-organizers:* See the conference website.
- Jul 24–28, 2017 *Conference:* 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. *Co-organizers:* Dominique Guillot (U. Delaware) and Bala Rajaratnam (UC Davis).

D1. CONFERENCE AND SEMINAR ORGANIZATION (cont.)

- Jan 13, 2015 *Conference:* AMS Special Session on Positivity and Matrix Inequalities, AMS–MAA Joint Mathematics Meetings, San Antonio.
Co-organizers: Dominique Guillot and Bala Rajaratnam (Stanford).
- Jan 12, 2015 *Conference:* AMS Special Session on Limits of Discrete Structures, AMS–MAA Joint Mathematics Meetings, San Antonio. *Co-organizers:* Peter Diao, Dominique Guillot, and Bala Rajaratnam (Stanford).
- Oct 13–17, 2014 *Conference:* Workshop on “Positivity, graphical models, and modeling of complex multivariate dependencies” (supported by the AIM and NSF), American Institute of Mathematics. *Co-organizers:* Dominique Guillot and Bala Rajaratnam (Stanford) and Hélène Massam (York University).
- Feb 1–2, 2014 *Conference:* Lie Theory Workshop on Quantum Groups (supported by the NSF and Stanford), Stanford University.
Co-organizers: Daniel Bump and Persi Diaconis (Stanford).
- May 26–27, 2012 *Conference:* Young Researchers Meet (Mathematics and Computer Science), Stanford University. *Co-organizer:* Govindan Rangarajan (IISc Bangalore).
- Feb 4–5, 2012 *Conference:* Lie Theory Workshop on Quantum Groups (supported by the NSF and Stanford), Stanford University.
Co-organizers: 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, 2023 *NCM Advanced Instructional School* on Lie Groups and Lie Algebras, supported by the NBHM, Indian Institute of Science.
Co-organizer: R. Venkatesh (IISc Bangalore).
- Apr 30–May 1, 2022 *Symposium* on Combinatorics and Probability, 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 <i>Algebra, Geometry and Graph Theory: Emerging Interconnections</i>
Jul 21, 2022	International conference on ‘Formal Power Series and Algebraic Combinatorics’ (33rd FPSAC, <i>Satellite of ICM-2022</i>), 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 [<i>cancelled due to CoVid-19 pandemic</i>]
Jul 2021	3rd Math Days in Sofia, Bulgarian Acad. Sci., Sofia, Bulgaria: Mini-Symposium on Hausdorff Geometry of Polynomials [<i>cancelled due to CoVid-19 pandemic</i>]
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 Technol-
ogy (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 2,9, 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	Universidade 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 18,25, 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 10,24, 2020	Ashoka University / IIT-Gandhingar / 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