

# Dr. Manjil P. Saikia

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CV

## Research Interests

- Enumerative and algebraic combinatorics (alternating sign matrices, plane partitions, domino tilings, lozenge tilings, lattice paths, etc.);
- Integer partitions &  $q$ -series (bijective proofs, partition identities, partition congruences, algorithmic techniques, etc.);
- Elementary number theory (number sequences, Diophantine equations, generalized perfect numbers, etc.).
- Theoretical Computer Science (analysis of combinatorial algorithms).

## Employment History

- Jul 2023 – present    ♦ **Assistant Professor (tenure-track)**, Mathematical and Physical Sciences Division, School of Arts and Sciences, Ahmedabad University, India.
- Dec 2022 – May 2023    ♦ **Assistant Professor (Guest)**, Department of Humanities and Basic Sciences, Indian Institute of Information Technology (IIIT) Manipur, India.
- Nov 2019 – Oct 2022    ♦ **Research Associate**, School of Mathematics, Cardiff University, Wales (UK).
- Sep 2015 – Sep 2019    ♦ **Research Fellow**, Fakultät für Mathematik, Universität Wien, Austria.

## Education

- Sep 2015 – Sep 2019    ♦ **Dr. rer. nat., Universität Wien, Austria** in Mathematics (*with distinction*).  
*Fully funded by the Austrian Science Fund.*  
Thesis title: *Topics on Alternating Sign Matrices and Aztec rectangles.*  
Supervisor: Prof. Ilse Fischer
- Sep 2014 – Aug 2015    ♦ **Postgraduate Diploma, The Abdus Salam International Centre for Theoretical Physics, Italy** in Mathematics.  
*UNESCO funded scholarship.*  
Thesis title: *Representations of the Symmetric Group.*  
Supervisor: Prof. Fernando Rodriguez Villegas
- Aug 2009 – Jun 2014    ♦ **Integrated M.Sc., Tezpur University, India** in Mathematics.  
*Gold Medal. INSPIRE Scholarship from Government of India.*  
Thesis title: *A study of the crank function with special emphasis on Ramanujan's Lost Notebook.*  
Supervisor: Prof. Nayandeep Deka Baruah

## Publications

*Undergraduate/Masters student co-authors (at the time of writing) are listed in [blue](#).*

*Four most significant in bold.*

### Under Review/Preprint

26. *Ramanujan-type Congruences for Partition  $k$ -Tuples with 5-Cores*, (with Abhishek Sarma and Pranjal Talukdar), under review, 2023.

25. *Biases in Non-Unitary Partitions*, (with Pankaj Jyoti Mahanta and [Abhishek Sarma](#)), under review, 2022.
24. *Conjectures on congruences of binomial coefficients modulo higher powers of a prime number*, under review, 2022.
23. *Extensions of some results of Jovovic and Dhar*, (with Pankaj Jyoti Mahanta), under review, 2022.
22. *On  $k$ -Facile Perfect Numbers*, (with Flora S. Jeba and Anirban Roy), under review, 2022.

**Published (in reverse chronological order)**

21. *Some Missed Congruences modulo powers of 2 for  $t$ -colored overpartitions*, Boletín de la Sociedad Matemática Mexicana, 2023, 29 (1), Article 15, 10 pp.
20. *Representing Even Perfect and Near-Perfect Numbers as Sums of Cubes*, (with Padma Bhushan Borah and Pankaj Jyoti Mahanta), Journal of the Assam Academy of Mathematics, 2022, 12, 1-7.
19. *Refinement of some partition identities of Merca and Yee*, (with Pankaj Jyoti Mahanta), International Journal of Number Theory, 2022, 18 (5), 1131-1142.
18. *Some New and Old Gibonacci Identities*, (with Pankaj Jyoti Mahanta), Rocky Mountain Journal of Mathematics, 2022, 52 (2), 645-665.
- 17b. *Parity Biases in Partitions and Restricted Partitions*, (with Koustav Banerjee, [Sreerupa Bhattacharjee](#), Manosij Ghosh Dastidar and Pankaj Jyoti Mahanta), Séminaire Lotharingien de Combinatoire (Proceedings of the 34th Conference on Formal Power Series and Algebraic Combinatorics 2022 (Bangalore)), 86B.21, 2022.
- 17a. *Parity Biases in Partitions and Restricted Partitions*, (with Koustav Banerjee, [Sreerupa Bhattacharjee](#), Manosij Ghosh Dastidar and Pankaj Jyoti Mahanta), European Journal of Combinatorics, 2022, 103, 103522, 19 pp.
16. *Refined Enumeration of Symmetry Classes of Alternating Sign Matrices*, (with Ilse Fischer), Journal of Combinatorial Theory, Series A, 2021, 178, 105350, 51 pp.
15. *A family of lacunary recurrences for Lucas Numbers*, (with Pankaj Jyoti Mahanta), The Fibonacci Quarterly, 2020, 58 (4), 356-360.
14. *Some properties of Zumkeller numbers and  $k$ -layered numbers*, (with Pankaj Jyoti Mahanta and Daniel Yaqubi), Journal of Number Theory, 2020, 217, 218–236.
- 13b. *Hard and Easy Instances of  $L$ -Tromino Tilings*, (with [Javier T. Akagi](#), [Carlos F. Gaona](#), [Fabricio Mendoza](#) and Marcos Villagra) Proceedings of the 13th International Conference and Workshops on Algorithms and Computation (WALCOM) 2019, Lecture Notes in Computer Science (LNCS), Volume 11355, Springer, 2019, 82-95.
- 13a. *Hard and Easy Instances of  $L$ -Tromino Tilings*, (with [Javier T. Akagi](#), [Carlos F. Gaona](#), [Fabricio Mendoza](#) and Marcos Villagra) Theoretical Computer Science, 2020, 815, 197-212.
12. *On Deficient Perfect Numbers with Four Distinct Prime Factors*, (with Parama Dutta) Asian-European Journal of Mathematics, 2020, 13 (7), 2050126, 13 pp.
11. *Enumeration of Domino Tilings of an Aztec Rectangle with boundary defects*, Advances in Applied Mathematics, 2017, 89, 41–66.
10. *Some Properties of Fibonacci Numbers, Generalized Fibonacci Numbers and Generalized Fibonacci Polynomial Sequences*, (with Alexandre Laugier) Kyungpook Mathematical Journal, 2017, 57 (1), 1–84.
9. *Some Results on Generalized Multiplicative Perfect Numbers*, (with Alexandre Laugier and [Upam Sarmah](#)) Annali Dell'Universita' di Ferrara, 2016, 62 (2), 293–312.

8. *A combinatorial proof of a result on generalized Lucas Polynomials*, (with Alexandre Laugier) *Demonstratio Mathematica*, 2016, 49 (3), 266–270.
7. *A study of the crank function in Ramanujan’s Lost Notebook*, *The Mathematics Student*, 2015, 84 (1-2), 105-121.
6. *Some results about Linear Recurrence Relation Homomorphisms*, (with Alexandre Laugier) *Notes on Number Theory and Discrete Mathematics*, 2014, 20 (4), 58-68.
5. *A characterization of a prime  $p$  from the binomial coefficient  $\binom{n}{p}$* , (with Alexandre Laugier), *The Mathematics Student*, 2014, 83 (1-4), 221-227.
4. *Cranks in Ramanujan’s Lost Notebook*, *Journal of the Assam Academy of Mathematics*, 2013, 6, 59-63.
3. *A new proof of Lucas’ Theorem*, (with Alexandre Laugier) *Notes on Number Theory and Discrete Mathematics*, 2012, 18 (4), 1-6.
2. *Binomial Symbols and Prime Moduli*, (with [Jure Vogrinc](#)) *Journal of the Indian Mathematical Society*, 2011, 79 (1-4), 137-143.
1. *A Simple Number Theoretic Result*, (with [Jure Vogrinc](#)) *Journal of the Assam Academy of Mathematics*, 2010, 3, 91-96.

#### **Selected Non Peer-Reviewed Publications (in reverse chronological order)**

6. *The Remarkable Sequence 2, 7, 42, 429, 7436, \dots*, *Ganit Bikash*, Jul-Dec 2020, 67, 44-50.
5. *Freeman Dyson: A Short Portrait*, *Ganit Bikash*, Jul-Dec 2020, 67, 25-27.
4. *Book review: The Surprising Mathematics of Longest Increasing Subsequences*, *Newsletter of the European Mathematical Society*, Dec 2016, 102, 52-53.
3. *John Forbes Nash, Jr. – A Short Obituary*, *Asia Pacific Mathematics Newsletter*, Sep 2015, 5 (2), 42-43.
2. *The Pythagoras’ Theorem*, *Asia Pacific Mathematics Newsletter*, Sep 2015, 5 (2), 5-8.
1. *Gonit Sora-the two year journey*, (with [Pankaj Jyoti Mahanta](#)), *Asia Pacific Mathematics Newsletter*, Oct 2013, 3 (4), 25-27.

#### **Books Edited**

1. *Moha Moha Puruxor Sanekire Jibonor* (in Assamese) (edited with Pankaj Jyoti Mahanta), Panchajanya Publishers, Guwahati, 2018.

#### **Solution to Problems (in reverse chronological order)**

2. *Problem 4 of The Mathematics Student*, 2015 (1-2), *The Mathematics Student*, Jul-Dec 2015, 84 (3-4), 181.
1. *Problem 1908 of Mathematics Magazine*, (with [Bishal Deb](#)), *The Mathematics Magazine*, Dec 2013, 86 (5), 384-385.

## **Teaching & Mentoring**

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- I have taught **mathematical problem solving in number theory and geometry** to school students (Grades 9 to 12) at the **Lodha Genius Program**, conducted at **Ashoka University**, Sonipat, India (May - June, 2023).
- I have taught the following courses at the **Indian Institute of Information Technology (IIIT Manipur)**:

- **MA1011: Linear Algebra & Single Variable Calculus** (First year undergraduate, December 2022 - February 2023): I was in charge of leading and delivering this course for 117 students from the first year engineering courses. (Course Webpage: <https://manjilsaikia.in/teaching/IIIT/ma1011>)
  - **MA305: Optimization Techniques** (Third year undergraduate, January 2023 - May 2023): I was in charge of leading and delivering this course for 34 students from the third year engineering courses. (Course Webpage: <https://manjilsaikia.in/teaching/IIIT/ma301>)
  - **MA1012: Multivariable Calculus & Ordinary Differential Equations** (First year undergraduate, March 2023 - May 2023): I was in charge of leading and delivering this course for 120 students from the first year engineering courses. (Course Webpage: <https://manjilsaikia.in/teaching/IIIT/ma1012>)
- Assisted in the workshop component of **Foundations of Mathematics II** course at **Cardiff University, UK** (2022).  
I was tasked with assisting first year undergraduate students in a face-to-face setup with their doubts and queries related to the module. Total contact time was 5 hours per week.
  - Delivered a series of talks at the **EAUMP-ICTP School: Topics in Concrete Mathematics on Combinatorial Representation Theory** in online mode, organized by **ICTP-East African Institute for Fundamental Research (EAI FR)** in **Kigali, Rwanda** (August 2021)
  - Gave one guest lecture each in the following graduate level courses at the **University of Vienna, Austria**:
    - **Seminar on Alternating Sign Matrices** (2017 Winter)
    - **Special Functions** (2017 Winter)
  - I have given the following advanced level courses on a volunteer basis to students in India:
    - **Generating Functions in Combinatorics** (Spring 2021): discussed the book **generatingfunctionology** by H. Wilf.
    - **Topics on Alternating Sign Matrices** (Summer 2021): discussed the book **Proofs and Confirmations** by David Bressoud.
    - **Perfect Numbers and its Generalizations** (Spring 2022): a few lectures are available online <https://tinyurl.com/perfect-numbers>.
    - **q-Series and Partitions** (Spring 2022): a few lectures are available online <https://tinyurl.com/q-series-partitions>.
    - **Rogers-Ramanujan Identities: Analytic and Combinatorial Aspects** (Fall 2022)
  - Actively involved in Mathematical Olympiad training camps in the North-East of India since 2008. I have delivered lectures for high school students at the following places: **Kaliabor College, Assam, India** (2008, 2012, 2013); **Darrang College, Tezpur, India** (2011, 2014); **Gauhati University, Guwahati, India** (2012, 2013, 2014); **North Eastern Hill University, Shillong, India** (2012, 2013, 2014); **Tinisukia Women's College, Assam, India** (2013); **Birjhora Higher Secondary School, Bongaigaon, India** (2017); **Inspire Academics, Tezpur, India** (2018).  
Several students who have attended these lectures have gone on to qualify in the Regional Mathematical Olympiad and Indian National Mathematical Olympiads.
  - I have also been actively involved in mentoring undergraduate students from Assam (India) since the last several years. This has resulted in two research publications with a few more in the pipeline.
  - I am also a mentor for an internship program run by **Gonit Sora** (<https://gonitsora.com>) and have so far **mentored four undergraduate students** from different parts of India (each for 3 months at a time).

## Fellowship Training

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Attended the following training programs on how to successfully apply for fellowships and research grants:

- **Fellowship Support Programme** organized by the **Research and Innovation Services, Cardiff University** (six half-day sessions running between **April 2021 to July 2021**).
- **Applying for Individual Fellowships** organized by the **Research Services and Career Development, University of Vienna** (full day session in **April 2019**).

## Outreach Experience

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- **Co-founded** the online bilingual (English & Assamese) magazine **Gonit Sora** (<https://gonitsora.com>) in April 2012.  
Also serving as its **Managing Editor** in charge of the overall management of the website since its inception.  
Among various activities done, we have published interviews with Nobel Laureates, Fields Medalists and ACM Turing Prize winners; done outreach in schools and colleges of Assam (India); and helped hundreds of students answer queries related to a career in mathematics.
- Organized a successful **series of webinars** (June 2020 – May 2021) under the aegis of Gonit Sora (<https://gonitsora.com/webinars/>), where **speakers from 7 different countries gave 29 talks** aimed mainly at school and college students of India.
- Co-Organized a successful **series of online seminars** (June 2020 – June 2021) for **Early Career Mathematicians from India** (<https://manjilsaikia.in/seminar/>).
- I was a **Core Team Member** of **Xomidhan** (<https://xomidhan.org>), a career counselling platform for students from North-East India. In this role I assisted in organizing several online and offline events for students in various parts of Assam (India).
- I am also actively writing (in English & Assamese) about science, mathematics and its impact on society in various platforms, including **The Wire**, **The Assam Tribune** and **The New Indian Express**.
- Co-founded the **Students' Science Council (SSC)** while an undergraduate at Tezpur University. SSC now successfully does school science outreach and organizes the largest science festival in North-East India, called **InSCIgnis**.

## Professional Duties

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- **Deputy Editor** of **Ganit Bikash** (<https://aamonline.org.in/ganit-bikash/>), the quarterly magazine of the Assam Academy of Mathematics (since July 2020).
- **Journal Manager** of the **Journal of the Assam Academy of Mathematics** (<https://jaam.aamonline.org.in>) (since June 2021)
- **Executive Committee Member** of the **Assam Academy of Mathematics** (since 2020)
- **Reviewer of articles for the following journals/conferences:** Advances in Mathematics, Journal of Algebraic Combinatorics, Discrete Mathematics, Annals of Combinatorics, Journal of the Indian Mathematical Society, The Mathematics Student, Mathematica Slovaca, Palestine Journal of Mathematics, Mathematics, Symmetry, Axioms, Notes on Number Theory and Discrete Mathematics, Mathematical Communications, Journal of Algebraic Systems, AIMS Mathematics, CSAE 2018.
- **Reviewer** for *Mathematical Reviews* of the American Mathematical Society, since 2015.
- **Reviewer** for *Zentralblatt Math* of the European Mathematical Society, since 2014.

- **Book Reviewer** for *Mathematical Association of America (MAA) Book Reviews*, since 2019.
- **Organising Committee Member** of the **Distinguished Lecture Series of The (Indian) Mathematics Consortium TMC** (<https://sites.google.com/view/distinguishedlectureseries>).
- **Member** of the **Student Steering Committee** of the **Vienna Doctoral School in Mathematics** at the University of Vienna, Vienna, Austria (2017-2019)
- Organized a series of talks and a department colloquium by Prof. Fernando Rodriguez Villegas at the Faculty of Mathematics, University of Vienna (November 2018)

## Selected Talks

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### Technical Talks

1. Research Seminar, Ahmedabad University, India, May 2023 (*invited talk*)
2. Combinatorial Number Theory and Connected Topics - II, India, online, February 2023 (*contributed talk*)
3. National Mathematics Day 2022, D. C. B. Girls College, Jorhat, India, December 2022 (*invited talk*)
4. Institute Seminar, Chaitanya Bharathi Institute of Technology, Hyderabad, India, November 2022 (*invited talk*)
5. Combinatorics Seminar, University of Bristol, UK, October 2022 (*invited talk*)
6. National Mathematics Day, Tezpur University, India, online, December 2021 (*invited talk*)
7. Combinatorial Number Theory and Connected Topics 2022, India, online, December 2021 (*contributed talk*)
8. Mathematics Seminar, Sambalpur University, Odisha, India, online, December 2021 (*invited talk*)
9. Mathematics Colloquium, Ashoka University, India, online, November 2021 (*invited talk*)
10. Talk Series, Club of Mathematics, Indian Institute of Science Education and Research, Thiruvananthapuram, India, online, November 2021 (*invited talk*)
11. Online Seminar in Number Theory, Tezpur University, Assam, India, online, October 2021 (*invited talk*)
12. Webinar Series in Mathematics, Rangapara College, Assam, India, online, September 2021 (*invited talk*)
13. Berchmans Webinar Series in Mathematics, St. Berchmans College, Kerala, India, online, August 2021 (*invited talk*)
14. Institute Seminar, Institute of Mathematics and Applications, Bhubaneswar, India, online, July 2021 (*invited talk*)
15. Joint Mathematics Meetings (AMS-MAA), online, January 2021 (*invited talk*)
16. Topics in Special Functions and Number Theory, online seminar, India, November 2020 (*invited talk*)
17. Combinatorics in Algebra, Topology and Graph Theory (CATGT) Webinar, India, September 2020
18. Webinar, Gurucharan College, Silchar, India, August 2020 (*invited talk*)
19. Webinar, Kaziranga University, Jorhat, India, August 2020 (*invited talk*)
20. Webinar, Digboi College, Digboi, India, August 2020 (*invited talk*)
21. International Conference on Mathematical Modelling in Applied Sciences (online), Dibrugarh University, India, June 2020 (*invited talk*)
22. GAP Seminar, Cardiff University, UK, April 2020 (*invited talk*)
23. Mathematics Seminar, Dibrugarh University, India, October 2019 (*invited talk*)

24. Mathematics Colloquium, Tezpur University, India, October 2019, May 2018 & November 2016 (*invited talks*)
25. Mathematics Seminar, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, July 2019
26. Combinatory Analysis 2018: A Conference in Honor of George Andrews' 80th birthday, Pennsylvania State University, State College, USA, July 2018 (*contributed talk*)
27. Mathematics Colloquium, North-Eastern Hill University, Shillong, India, May 2018 (*invited talk*)
28. Vienna Discrete Mathematics Seminar, Technische Universität Wien, April 2018 (*contributed talk*)
29. 80th Séminaire Lotharingien de Combinatoire, Institut Camille Jordan - Bâtiment Braconnier, Université Claude Bernard Lyon 1, France, March 2018 (*contributed talk*)
30. PhD Colloquium, Fakultät für Mathematik, Universität Wien, Austria, March 2018 (*invited talk*)
31. First Interdisciplinary Symposium of the Vienna Doctoral Schools, Universität Wien, Austria, September 2017 (*contributed talk*)
32. Mini-Conference on Networks and Games, Indian Statistical Institute, Kolkata, India, July 2017 (*invited talk*)
33. Stat-Math Unit Seminar, Indian Statistical Institute, Delhi, India, February 2017
34. International Conference of The Indian Mathematics Consortium in cooperation with American Mathematical Society, Banaras Hindu University, Varanasi, India, December 2016 (*contributed talk*)
35. ALEA in Europe Young Researcher's Workshop, Technische Universität Wien, Austria, September 2016 (*contributed talk*)
36. 3rd Algorithmic and Enumerative Combinatorics Summer School, Research Institute for Symbolic Computation, Johannes Kepler Universität Linz, August 2016 (*contributed talk*)
37. Vienna Discrete Mathematics Seminar, Technische Universität Wien, June 2016 (*contributed talk*)
38. National Seminar on Advances in Mathematical Sciences, Gauhati University, December 2015 (*contributed talk*)
39. ICM International Satellite Conference on Rings and Near Rings, North Eastern Hill University, Shillong, India, September 2010 (*invited talk*)

### **Other Talks**

1. Problem Solving Session for JEE aspirants, Indian Institute of Information Technology (IIIT) Manipur, December 2022 (*invited talk*)
2. Interaction Session with Students, Assam Academy of Mathematics, Bongaigaon Branch, Assam, India, online, October 2022 (*invited talk*)
3. International Day of Mathematics 2022 Interactive Session with Students, Sipajhar College, Assam, India, online, March 2022 (*invited talk*)
4. Interaction Session with Students, Patharkandi College, Assam, India, online, February 2022 (*invited talk*)
5. Studies in Science Communication and Popular Science Writing in Assamese: Assessment and Future Needs, CSIR-National Institute of Science Communication & Policy Research, New Delhi, India, online, February 2022 (*invited talk*)
6. Talk on Pseudoscience, InSciGnis 2022, Tezpur University, India, online, February 2022 (*invited talk*)
7. 15 Minit Xikhya, Assam, India, online, November 2021 (*invited talk*)
8. Webinar on Mathematics Education (online), Assam Down Town University, Guwahati, India, July 2020 (*invited talk*)



## **Selected Conferences/Workshops Attended\***

\*Excluding the ones where I have given a talk.

1. FPSAC (Formal Power Series and Algebraic Combinatorics) 2022 Online, July 2022
2. Ramanujan and Euler: Partitions, mock theta functions, and  $q$ -series, Online, July 2022
3. FPSAC (Formal Power Series and Algebraic Combinatorics) 2021 Online, January 2022
4. Lattice Paths, Combinatorics and Interactions, CIRM, Marseille Luminy, France, online, June 2021
5. International Conference on Number Theory and Algebra, IIT (BHU), Varanasi, India, online, December 2020
6. International Conference on Special Functions & Applications (ICSFA-2020), Babu Banarasi Das University, Lucknow, India, online, December 2020
7. International Conference on Number Theory and Discrete Mathematics, Rajagiri School of Engineering and Technology, Kochi, India, online, December 2020
8. FPSAC (Formal Power Series and Algebraic Combinatorics) 2020 Online, July 2020
9. Combinatorial and Additive Number Theory 2020, online, June 2020
10. Algebraic Combinatorics Online Workshop, online, April 2020
11. 5th Algorithmic and Enumerative Combinatorics Summer School, Research Institute for Symbolic Computation, Johannes Kepler Universität Linz, Austria, July-August 2019
12. 31st International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC), University of Ljubljana, Ljubljana, Slovenia, July 2019
13. 13th International Conference and Workshops on Algorithms and Computation (WALCOM), Indian Institute of Technology, Guwahati, India, February-March, 2019
14. 4th Algorithmic and Enumerative Combinatorics Summer School, Research Institute for Symbolic Computation, Johannes Kepler Universität Linz, Austria, July-August 2018
15. Workshop on Computer Algebra in Combinatorics, Erwin Schrödinger International Institute for Mathematics and Physics, Universität Wien, Austria, November 2017
16. Workshop on Enumerative Combinatorics, Erwin Schrödinger International Institute for Mathematics and Physics, Universität Wien, Austria, October 2017
17. ALEA in Europe Workshop, Technische Universität Wien, Austria, October 2017
18. European Conference on Combinatorics, Graph Theory and Applications, Technische Universität Wien, Austria, August-September 2017
19. Elliptic Hypergeometric Functions in Combinatorics, Integrable Systems and Physics, Erwin Schrödinger International Institute for Mathematics and Physics, Universität Wien, Austria, March 2017
20. Computer Algebra and Elementary Particle Theory at the Large Scale: 10 Years of JKU-DESY Collaboration, Research Institute for Symbolic Computation, Johannes Kepler Universität Linz, Austria, February 2017
21. 2016 Symposium Diskrete Mathematik, Freie Universität Berlin, Zuse-Institut Berlin, Germany, July 2016
22. 28th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC), Simon Fraser University, Vancouver, Canada, July 2016
23. 76th Séminaire Lotharingien de Combinatoire, Obernai, France, April 2016
24. Conference dedicated to the scientific legacy of Marcel-Paul Schützenberger, Université de Bordeaux, Bordeaux, France, March 2016
25. CIMPA International Research School and Conference on Fourier analysis of groups in Combinatorics, North-Eastern Hill University, Shillong, India, November 2013



26. Advanced Instructional School on Analytic Number Theory, Kalinga Institute of Industrial Technology (KIIT) University, Bhubaneswar, India, June 2013
27. The Legacy of Srinivasa Ramanujan, University of Delhi, New Delhi, India, December 2012
28. Pan Asian Number Theory Conference, Indian Institute of Science Education and Research, Pune, India, July 2012
29. Advanced Instructional School on Number Theory (The Circle Method), The Institute of Mathematical Sciences, Chennai, India, June - July 2012

## Memberships of Professional Bodies

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- **American Mathematical Society**, ordinary member (since 2015)
- **Ramanujan Mathematical Society**, life member (since 2018)
- **Assam Academy of Mathematics**, life member (since 2019)

## Skills

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- Languages   ◇ English (native), Assamese (mother tongue), Hindi (fluent), Bengali (fluent).
- Coding       ◇ Mathematica,  $\LaTeX$ .
- Web Dev      ◇ HTML, CSS, Apache Web Server.

## Miscellaneous Experience

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### Awards and Achievements

- 2018   ◇ **Conference Funding**, USD 300 awarded to attend Combinatory Analysis in Penn State, USA
- 2016   ◇ **Conference Funding**, CAD 350 awarded to attend 28th FPSAC in Vancouver, Canada
- 2015   ◇ **UNESCO Scholarship**, Awarded to study at The Abdus Salam ICTP, September 2014 – August 2015
- 2014   ◇ **Gold Medal**, for academic excellence in Master of Science (Mathematics) course at Tezpur University, November 2015.
- ◇ **UGC-CSIR National Eligibility Test**, qualified with Indian National Rank 17, June 2014.
- 2011   ◇ **Assam Academy of Mathematics**, certificate of excellence on their golden jubilee year.
- 2009   ◇ **INSPIRE Scholarship**, awarded by Department of Science and Technology, Government of India to the top 1% students of the country, August 2009 – July 2014.
- 2008   ◇ **Assam Academy of Mathematics**, Prof. Bapu Krishna Choudhury Memorial Prize, for getting the first prize in the group Olympiad (Mathematics) exam.
- ◇ **Regional Mathematical Olympiad**, qualified from the North Eastern Region of India.
- 2007   ◇ **Dr. Subratananda Dowerah Memorial Gold Medal**, awarded by the Assam Academy of Mathematics for topping the mathematics Olympiad.
- ◇ **Anundoram Barooah Award** from the Government of Assam, India to first division holders in school leaving examination, 2007.

### Summer Internships

- 2012   ◇ Summer Research Fellowship Awarded jointly by the three science academies of India, June – July 2012 at **Institute of Mathematical Sciences, Chennai** under **Prof. R. Balasubramanian**.

## Miscellaneous Experience (continued)

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- 2011   ◇ Summer Research Fellowship Awarded jointly by the three science academies of India, June – July 2011 at **Indian Institute of Science Education and Research, Mohali** under **Prof. Kapil Hari Paranjape**.
- 2010   ◇ Summer Research Fellowship Awarded **Chennai Mathematical Institute**, June – July 2010 under **Prof. Purusottam Rath**.

## References

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**Prof. Ilse Fischer**  
Universität Wien  
Vienna, Austria.

**Prof. Roger Behrend**  
Cardiff University  
Cardiff, UK.

**Dr. Michael Schlosser**  
Universität Wien  
Vienna, Austria.

**Prof. Christian Krattenthaler**  
Universität Wien  
Vienna, Austria.

**Prof. Nayandeep Deka Baruah**  
Tezpur University  
Tezpur, India.

**Prof. Anupam Saikia<sup>1</sup>**  
Indian Institute of Technology Guwahati  
Guwahati, India.

Full contact details available on request.

*Last updated on 3rd July 2023.*

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<sup>1</sup>No relation to me, my surname is a very common surname in Assam, India.