Anup B. Dixit

Personal Data

DATE OF BIRTH:20 December, 1991NATIONALITY:IndianADDRESS:Room 211, Institute of Mathematical Sciences, Taramani, Chennai 600 113, India.EMAIL:anupdixit@imsc.res.inHOMEPAGE:www.imsc.res.in/~anupdixit

EMPLOYMENT

- Assistant professor (Fellow E) at Institute of Mathematical Sciences. (Dec 2020)
- Inspire Faculty fellow at Chennai Mathematical Institute. (July-Dec, 2020)
- Coleman Postdoctoral Fellow at Queen's university. (2018-2020)

EDUCATION

Ph.D. in Mathematics (2013-2018)	UNIVERSITY OF TORONTO, Toronto, Canada. Advisor: V. Kumar Murty Thesis: "The Lindelöf class of <i>L</i> -functions"
M.Sc. in Mathematics (2012-2013)	UNIVERSITY OF TORONTO, Toronto, Canada. Advisor: V. Kumar Murty Thesis: "On the theory of <i>L</i> -functions"
B. Sc. in Mathematics and Computer Science (Hons.) (2009-2012)	CHENNAI MATHEMATICAL INSTITUTE, Chennai, India.

RESEARCH INTERESTS

Analytic and algebraic number theory, elementary number theory, probabilistic number theory and Diophantine geometry.

PUBLICATIONS/PREPRINTS

- Uniqueness results for a class of *L*-functions, *Proceedings of geometry, algebra, number theory, and their information technology applications*, 163–181, 2018.
- The Lindelöf class of *L*-functions, II (with V. K. Murty), *International Journal of number theory*, **15**, no. 10, (2019), 2201-2221.
- A uniqueness property of general Dirichlet series, Journal of Number theory, 206, (2020), 123-137.
- On Euler-Kronecker constants and the generlized Brauer-Siegel theorem, *Proceedings of American Mathematical Society*, **148**, (2020), 1399-1414.

- On the Selberg class of *L*-functions, *Conference proceedings: Number Theory: Arithmetic, Diophantine and Transcendence, RMS-Lecture Notes Series,* no. 26, (2020), 21-42.
- A localized Erdös-Kac theorem (with M. R. Murty), Hardy-Ramanujan journal, 43, (2020), 17-23.
- Large values of L-functions on 1-line (with K. Mahatab), *Bulletin of Australian Mathematical Society*, **103**, no. 2, (2021), 230-243.
- On the generalized Brauer-Siegel theorem for asymptotically exact families with solvable normal closure, *Int. Math. Res. Not. IMRN*, **2021**, issue 14, (2021), 10941-10956.
- Generalized Diophantine *m*-tuples (with S. Kim and M. R. Murty), *Proceedings of American Mathematical Society*, **150**, no. 4, (2022), 1455-1465.
- A localized Erdös-Kac theorem for $\omega_y(p+a)$ (with M. R. Murty), Hardy-Ramanujan Journal, 45, (2022), 74-83.
- On limit theorem of zeta functions, Proceedings of the Subbarao conference, to appear.
- On Ihara's conjecture for the Euler-Kronecker constants (with M. R. Murty), Acta Arithmetica, to appear.
- An effective bound on generalized Diophantine *m*-tuples, (with S. Bhattacharjee and D. Saikia), *submitted*.
- Linear independence of values of the *q*-exponential and related functions, (with V. Kumar and S. Pathak), *submitted*.
- A consequence of Tate's conjecture on the order of pole of certain *L*-functions (with V. K. Murty), *submitted*.

REFEREEING FOR JOURNALS

- Journal of number theory.
- Canadian journal of mathematics.
- Colloquium Mathematicum.
- Journal of Ramanujan Mathematics Society.
- Czechoslovak Mathematical journal.
- Mathematische Nachrichten.
- Ramanujan Journal.
- International Journal of Number Theory.
- Journal of uniform distribution theory.
- Taiwanese journal of mathematics.
- Proceedings: Mathematical Sciences.

SCHOLARSHIPS AND HONOURS

- Inspire Faculty fellowship award, 2020-2025.
- Postdoctoral Travel Award, Queen's University, March 2019.
- Margaret Isobel Elliott Graduate Scholarship in the Department of Mathematics, University of Toronto, 2016-2017.
- Blyth fellowship in Department of Mathematics, University of Toronto, 2014-15.
- Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship, India, 2008.
- National Board for Higher Mathematics (NBHM) Fellowship, India, 2009-2012.
- Qualified the Indian National Mathematics Olympiad, India, 2008 and 2009.

TEACHING EXPERIENCE

Instructor for elective graduate course:	Diophantine geometry, IMSc, Jan-May 2023.
Instructor for elective graduate course:	Analytic theory of algebraic numbers, IMSc, Jan-May 2022.
Instructor for MATH 210:	Rings and Fields, Queen's University, Winter 2020.
Instructor and co-ordinator for MTHE 227:	Vector Calculus, Queen's University, Fall 2019.
Instructor and co-ordinator for MATH 126:	Differential and Integral Calculus, Queen's University, Fall 2018/Winter 2019.
Instructor and co-ordinator for MAT 224:	Linear Algebra II, University of Toronto, Summer 2018.
Instructor and co-ordinator for MAT 334:	Complex Variables, University of Toronto, Fall 2017.
Instructor and co-ordinator for MAT 223:	Linear Algebra, University of Toronto, Summer 2017.
Instructor for MAT 223:	Linear Algebra, University of Toronto, Fall 2016.
Instructor for MAT 136:	Calculus 1(B), University of Toronto, Winter 2015.

STUDENT SUPERVISION

Current PhD student:	Sushant Kala.
Summer students (2022):	Saunak Bhattacharjee, Dishant Saikia.
Summer students (2021) :	Rishika Agarwal, Sai Sanjeev Balakrishnan, Pragya Paramita Sahu, Nilava Metya, Shubhrajit Bhattacharya.

ORGANIZATION

- 1. Co-organizer for IMSc 60, celebrating 60 years of IMSc, Chennai (Jan 2023).
- 2. Organizer for number theory seminar at IMSc, Jan-Apr 2020 and Oct-Dec, 2021.
- 3. Organizer for the Number theory seminar at Queen's university, 2019-20.
- 4. Co-organizer of Ganita seminar at University of Toronto, 2015-16.

CONFERENCE AND SEMINAR TALKS

- Invited speaker for Workshop and conference in number theory at **NISER**, Bhubaneswar (February 2023).
- Invited speaker for Chennai-Tirupati number theory conference at CMI, Chennai (February 2023).
- Invited speaker at IMSc60 Celebration at IMSc, Chennai (Jan 2023).
- Invited speaker for **RMS Number theory Symposium** at SSN College of Engineering, Chennai (December 2022).
- Invited speaker for ICCGNFRT at Kerala School of Mathematics, Kozhikode (November 2022).
- Invited speaker at number theory seminar at Fields Institute, Canada, (November 2022).
- Invited speaker for **DARF seminar** organized by Nihon and Tsukuba University, Japan (November 2022).
- Speaker at Leuca2022-birthday conference of Claude Levesque, Damien Roy and Michel Waldschmidt at Marina di San Gregorio, Patù (Lecce), Italy (May 2022).
- Invited Colloquium speaker at IISER Pune, (August 2022).
- Invited speaker for Balu Fest conference at IMSc, Chennai (March 2021).
- Invited speaker for the Arithmetic Statistics session at CMS Winter Meeting, (December 2020).
- Invited speaker for the Number theory seminar at Fields Institute, Canada, (November 2020).
- Invited speaker for the Number theory seminar at University of Wisconsin, Madison, (November 2020).
- Speaker at Colloquium, Queen's University, (March 2020).
- Invited speaker for the Algebra and Number theory seminar at **Penn-State University**, (February 2020).
- Invited speaker for the Number theory seminar at University of Waterloo, (January 2020).
- Invited speaker for the Analytic number theory session at CMS Winter meeting, (December 2019).

- Invited speaker for the Number theory seminar at MIT, (November 2019).
- Invited speaker for the Algebra and number theory seminar at **Penn-State university**, (October 2019).
- Speaker at Palmetto number theory series, University of North Carolina, Charlotte. (September 2019).
- Invited Speaker at Colloquium, NISER, Bhubaneswar, India. (July 2019).
- Invited Speaker at Seminar, IISER Tirupati, Tirupati, India. (July 2019).
- Invited Speaker at Mathematics Seminar, Institute of Mathemaical Sciences (IMSc), Chennai, India. (July 2019).
- Invited Speaker at Number Theory Seminar, IISER Pune, Pune, India. (July 2019).
- Speaker at the Value distribution of zeta and *L*-functions and related topics, Wako, Japan. (March 2019).
- Speaker at the **Canadian Number Theory Association Conference**, Université Laval, Québec city, Canada. (July 2018).
- Speaker at the **2018 CMS Summer Meeting**, University of New Brunswick, Fredericton, Canada. (June 2018).
- Invited Speaker at Number Theory seminar, York University, Toronto, Canada. (April 2018).
- Invited speaker at Number Theory Seminar, **University of Waterloo**, Waterloo, Canada. (January 2018).
- Invited Speaker at Number Theory: Arithmetic, Diophantine and Transcendence, Conference celebrating 130th birth anniversay of Srinivasa Ramanujan, IIT Ropar, India. (December 2017).
- Speaker at the 2017 CMS Winter Meeting, University of Waterloo, Canada. (December 2017).
- Invited speaker at Number Theory Seminar, Queen's University, Kingston, Canada. (October 2017).
- Invited speaker at Number Theory Seminar, University of Toronto, Toronto, Canada. (October 2017).
- Invited speaker at Seminar, NISER Bhubaneshwar, Bhubaneshwar, India. (May 2017).
- Invited speaker at Colloquium, Chennai Mathematical Institute, Chennai, India. (May 2017).
- Invited speaker at Number Theory Seminar, IISER Pune, Pune, India. (May 2017).
- Invited Speaker at Number Theory Conference on Arithmetic Geometry and *L*-functions, in honour of Prof. V. Kumar Murty, Kerala School of Mathematics, Kozhikode, Kerala, India. (August 2016).

OUTREACH AND OTHER ACTIVITIES

- Participated in Resource Generation Camp at ICTS, Bangalore (March 2023).
- Lectured in INMO training camp at P. S. Senior secondary school, (January 2023).
- Invited speaker for Facets-2022 at IMSc, Chennai (September 2022).
- Lectured in AFS School, organized at Pondicherry University, (June 2022).
- Lectured in INMO training camp (online), organized by P. S. Senior secondary school, (December 2021).
- Lectured in Tesselate STEMS, organized by CMI (online), (October 2020).
- Reviewer for Mathscinet.