

CURRICULUM VITA FOR IMIN CHEN

Department of Mathematics
Simon Fraser University
8888 University Drive
Burnaby, BC
Canada V5A 1S6

Office: (778) 782-3339
Fax: (778) 782-4947
Email: ichen@sfu.ca
Web: iminchen.org

EDUCATION

D. Phil. in Mathematics, University of Oxford, 1996.

B.Sc. in Computing Science and Mathematics, Queen's University, 1992.

EMPLOYMENT

Associate Chair. Department of Mathematics, Simon Fraser University. May 2018–April 2021.

Professor (tenured). Department of Mathematics, Simon Fraser University. September 2019–present.

Associate Professor (tenured). Department of Mathematics, Simon Fraser University. September 2006–August 2019.

Assistant Professor (tenure-track). Department of Mathematics, Simon Fraser University. September 2000–September 2006.

Research Associate. Max-Planck-Institut-für-Mathematik. January–August 2000.

CICMA Postdoctoral Fellow. Department of Mathematics, Concordia and McGill Universities. September 1998–December 1999.

NSERC Postdoctoral Fellow. Department of Mathematics, UC Berkeley and McGill Universities. September 1996–August 1998.

RESEARCH

General areas: Algebraic number theory, arithmetic geometry, representation theory.

Specific areas: Automorphic forms, diophantine problems, Drinfeld modules, elliptic curves, function fields, galois representations, generalized Fermat equations, \mathbb{Q} -curves, modular varieties, special functions.

RESEARCH GRANTS

NSERC Discovery Grant. *Modular varieties, generalized Fermat equations, and special functions*, 2017–2023.

NSERC Discovery Grant. *Modular varieties and diophantine problems*, 2009–2015.

NSERC RTI Grant. *Arithmetic Geometry and Number Theory computing support*, 2005–2006.

NSERC Discovery Grant. *Arithmetic and geometry of modular curves*, 2004–2009.

NSERC Discovery Grant. *Galois representations and congruence primes*, 2000–2004.

SELECTED PUBLICATIONS

- [34] I. Chen, A. Efemwonkieke, and D. Sun. Fermat's Last Theorem over $\mathbb{Q}(\sqrt{5})$ and $\mathbb{Q}(\sqrt{17})$. In press, Canadian J. Math.
- [32] I. Chen, G. Glebov, and R. Goenka. Chudnovsky-Ramanujan type formulae for non-compact arithmetic triangle groups. J. Number Theory 241 (2022), 603–654.
- [30] N. Billerey, I. Chen, L. Dembélé, L. Dieulefait, and N. Freitas. Some extensions of the modular method and Fermat equations of signature $(13,13,n)$. Accepted, Publicacions Matemàtiques.
- [29] I. Chen and P. Salari Sharif. On an explicit correspondence of modular curves. J. Number Theory 200 (2019), 185–204.
- [27] N. Billerey, I. Chen, L. Dieulefait, and N. Freitas. A multi-Frey approach to Fermat equations of signature (r,r,p) . Trans. Amer. Math. Soc. 371 (2019), no. 12, 8651–8677.
- [26] I. Chen and G. Glebov. On Chudnovsky-Ramanujan type formulae. Ramanujan J. 46 (2018), Issue 3, 677–712.
- [25] N. Billerey, I. Chen, L. Dieulefait, and N. Freitas. A result on the equation $x^p + y^p = z^r$ using Frey abelian varieties. Proc. Amer. Math. Soc. 145 (2017), no. 10, 4111–4117.
- [24] I. Chen and Y. Lee. Explicit surjectivity results for Drinfeld modules of rank 2, Nagoya J. Math. (2017) 234, 17–45.
- [22] I. Chen and I. Kiming. On the theta operator for modular forms modulo prime powers. Mathematika 62 (2016), Issue 02, 321–336.
- [17] M. Bennett and I. Chen. Multi-Frey \mathbb{Q} -curves and the Diophantine equation $a^2 + b^6 = c^n$. Algebra and Number Theory 6 (2012), no.4, 707–730.
- [14] I. Chen and S. Siksek. Perfect powers expressible as sums of two cubes. J. Algebra 322 (2009), no. 3, 638–656.

- [09] I. Chen. Jacobians of modular curves associated to normalizers of Cartan subgroups of level p^n . C. R. Math. Acad. Sci. Paris 339 (2004), no. 3, 187–192.

For all publications, including arXiv preprints, see iminchen.org.

RECENT TEACHING

- 2022-3 MATH 157 Calculus I for Social Sciences
- 2022-2 MATH 342 Elementary Number Theory
- 2022-1 MATH 894 Topics in Number Theory
- 2021-3 MATH 817 Groups and Rings
- 2021-2 MATH 338 Advanced Linear Algebra
- 2021-2 MATH 342 Elementary Number Theory
- 2020-3 MATH 450 Introduction to Topology
- On study leave in Summer 2020.
- 2019-3 MATH 817 Groups and Rings
- 2019-2 MATH 342 Elementary Number Theory
- 2018-3 MATH 340 Algebra II: Rings and Fields
- 2018-2 MATH 157 Calculus I for Social Sciences
- 2018-2 MATH 342 Elementary Number Theory
- 2017-3 MATH 240 Algebra I: Linear Algebra
- 2017-2 MATH 157 Calculus I for Social Sciences
- 2017-2 MATH 338 Advanced Linear Algebra
- 2016-3 MATH 340 Algebra II: Rings and Fields
- 2016-2 MATH 232 Applied Linear Algebra
- 2016-2 MATH 342 Elementary Number Theory

For all teaching, see iminchen.org.

ACADEMIC SERVICE

Zentralblatt Math Reviewer, 2006–present.

MathSci Mathematical Reviews Reviewer, 1999–present.

Journal Refereeing: Acta Arith., Bull. LMS, Can. J. Math., Can. Math. Bulletin, Exp. Math., Int. J. Number Theory, IMRN, J. LMS, J. Number Theory, Math. Annalen, Math. Comp., Math. Res. Lett., Manuscripta Math., Math. Z., Proc. AMS., Quarterly J. Math., Ramanujan J., Research in Number Theory, Rev. Math. Iberoam, Trans. AMS.

ADMINISTRATIVE SERVICE

Departmental and University Administration

2019–present SFU Quantum Committee.

On leave May – August 2020.

2018–2021 Associate Chair, Department of Mathematics; Chair, Teaching Assignment Committee; Search Committees; Mathematics, Statistics and Actuarial Science Space Plan Committee, Hiring Committee (2).

2017–2018 Departmental Tenure and Promotions Committee, Hiring Committee.

2012–present Library Liaison Representative.

On leave 2010.

2009–2010 Computing Support Committee, Graduate Studies Committee.

2008–2009 Computing Support Committee, Graduate Studies Committee, MSc Examination Committee.

2006–2008 Graduate Studies Committee, MSc Examination Committee.

2005–2006 Graduate Studies Committee, MSc Examination Committee, Business Calculus Textbook and Syllabus Committee.

2004–2005 Graduate Studies Committee (Co-Chair), Graduate Admissions Committee (Co-Chair), Departmental Tenure and Promotions Committee, NSERC Adjudication Committee.

2003–2004 Graduate Studies Committee (Co-Chair), Graduate Admissions Committee (Co-Chair), NSERC Adjudication Committee.

2002–2003 Graduate Studies Committee (Co-Chair), Graduate Admissions Committee (Co-Chair), Course Offerings Review Committee, NSERC Adjudication Committee.

2001–2002 Graduate Studies Committee, Search Committee.

2000–2001 Graduate Admissions Committee, Library Committee.

Other Administration

CMS Electronic Services Committee (2007–2009)

CMS Board of Directors (2005–2009)

CMS Endowment Committee (2003–2006)

PIMS Steering Committee (2000–2004)

STUDENTS

MSc Graduate Students

7. MSc, 2019–2021, Andrew Cha.

6. MSc, 2015–2018, Shanzhao Wang.

5. MSc, 2014–2017, Parinaz Salari Sharif.

4. MSc, 2013–2016, Gleb Glebov.

3. MSc, 2004–2006, Hesam Abbaspour.

2. MSc, 2002–2006, Lisa Redekop.

1. MSc, 2001–2003, Beth Powell.

Undergraduate Students

7. NSERC USRA, 2021, Aisosa Efemwonkieke.

6. NSERC USRA, 2020, David Sun.

5. Mitacs SFU-IIT, 2019, Ritesh Goenka.

4. VPR USRA, 2019, Hyukho Kwon.

3. NSERC USRA, 2018, Marius Ticu.

2. NSERC USRA, 2002, Isabelle Major.

1. NSERC USRA, 2001, John Wedgewood.