

CONTACT

Assistant Professor of Mathematics
Duke Kunshan University
8 Duke Ave, Kunshan, Suzhou,
Jiangsu Province, China, 215316

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EMPLOYMENT

| | | |
|-----------------|---|---|
| 2023.08– | Assistant Professor of Mathematics | Duke Kunshan University |
| 2023.08– | Assistant Professor of the Practice of DKU Studies | Duke University |
| 2024.07– | Adjunct of the Faculty of Graduate Studies | Dalhousie University |
| 2020.08–2023.07 | Lecturer in Mathematics | Duke Kunshan University |
| 2020.08–2023.07 | Assistant Professor of the Practice | Trinity College of Arts & Science, Duke University |
| 2019.09–2020.07 | Research Associate | Department of Mathematics and Statistics, Dalhousie University |
| 2017.09–2019.08 | Killam Postdoc Fellow | Department of Mathematics and Statistics, Dalhousie University |
| 2017.03–2017.08 | Research Scientist, Johann Radon Inst. for Comp. and Appl. Math., Austrian Academy of Science | |
| 2016.06–2017.02 | Postdoc Fellow | Research Institute for Symbolic Computation, Johannes Kepler University |

RESEARCH INTERESTS

Symbolic Computation, Number Theory, Combinatorics, Special Functions

EDUCATION

| | | |
|-----------------|---|--|
| 2011.08–2016.05 | Tulane University, Ph.D. in Mathematics | <i>Advisor:</i> <u>Victor H. Moll</u> |
| 2013.09–2014.02 | Research Institute for Symbolic Computation, Johannes Kepler University, Exchange Ph.D. Student | <i>Advisor:</i> <u>Carsten Schneider</u> |
| 2008.09–2010.07 | Beijing Institute of Technology, Master of Science | <i>Advisor:</i> <u>Huafei Sun</u> |
| 2004.09–2008.06 | Beijing Institute of Technology, Bachelor of Science | <i>Thesis Advisor:</i> <u>Huafei Sun</u> |

GRANT AWARDED

| | | |
|-----------------|--|--|
| 2023.07–2025.06 | WHU-DKU Joint Grant Seed | Wuhan University and Duke Kunshan University |
| | DKU PI of “Wuhan University-Duke Kunshan University-Dalhousie University Research Platform on Combinatorics and Number Theory” | |
| 2023.01–2024.12 | Faculty Learning Community, Center for Teaching and Learning, Duke Kunshan University | |
| 2022.07–2024.06 | WHU-DKU Joint Grant Seed | Wuhan University and Duke Kunshan University |
| | Research team member of Dr. Dongmian Zou, Duke Kunshan University | |
| 2022.01–2022.12 | Gradescope Research Project Grant | Gradescope |
| | Using Gradescope in math courses, facilitated by Center for Teaching and Learning, Duke Kunshan University | |
| 2021.07–2023.06 | Interdisciplinary Seed Grant | Duke Kunshan University |
| | Quantum algorithms for computational number theory, linear algebra, and combinatorics | |
| | Joint with Dr. Myung-Joong Huang, Duke Kunshan University | |
| 2017.09–2019.08 | Killam Research Fund | Killam Trust @ Dalhousie University |
| | Research Support for Killam Postdocs | |

PUBLICATIONS

(While working on the projects, undergraduate students are marked with a *)

BOOK

- 1 H. Sun, L. Peng, Y. Cheng, D. Li, and **L. Jiu**, *Mathematical Foundations of Information Geometry*, Science Press, Beijing, 2025. ISBN: 978-7-03-080107-4.

PAPERS

- 39 S. Chern, **L. Jiu**, S. Li*, and L. Wang, Leading coefficient in the Hankel determinants related to binomial and q -binomial transforms, submitted for publication.
- 38 **L. Jiu** and D. Wang*, On b -ary binomial coefficients with negative entries, Submitted for Publication.
- 37 **L. Jiu** and L. Peng, Information geometry and alpha-parallel prior of the beta-logistic distribution, *Comm. Statist. Theory Methods*. **54** (2025), 3292–3306.
- 36 S. Chern, **L. Jiu**, and I. Simonelli, A central limit theorem for a card shuffling problem, *J. Combin. Theory Ser. A* **214** (2025), Article 106048.
- 35 **L. Jiu** and Y. Li*, Hankel determinants of certain sequences of Bernoulli polynomials: A direct proof of an inverse matrix entry from Statistics, *Contrib. Discrete Math.* **19** (2024), 64–84.
- 34 Q. Chen, S. Chern, and **L. Jiu**, Multi-headed lattices and Green functions, *J. Phys. A: Math. Theor.* **57** (2024) Article 465204.

- 33 S. Chern and **L. Jiu**, Hankel determinants and Jacobi continued fractions for q -Euler numbers, *C. R. Math. Acad. Sci. Paris* **362** (2024), 203–216.
- 32 K. Dilcher and **L. Jiu**, Hankel determinants of shifted sequences of Bernoulli and Euler numbers, *Contrib. Discrete Math.* **18** (2023), 146–175.
- 31 Z. Bradshaw, I. Gonzalez, **L. Jiu**, V. H. Moll, and C. Vignat, Compatibility of the method of brackets with classical integration rules, *Open Math.* **21** (2023), Article number: 20220581.
- 30 **L. Jiu** and D. Y. H. Shi, Moments and cumulants on identities for Bernoulli and Euler numbers, *Math. Reports* **24** (2022), 643–650.
- 29 **L. Jiu** I. Simonelli, and H. Yue*, Loop Decompositions of Random Walks and Nontrivial Identities of Bernoulli and Euler Polynomials, *Integers* **22** (2022), A91.
- 28 K. Dilcher and **L. Jiu**, Hankel Determinants of sequences related to Bernoulli and Euler Polynomials, *Int. J. Number Theory* **18** (2022), 331–359.
- 27 K. Dilcher and **L. Jiu**, Orthogonal polynomials and Hankel determinants for certain Bernoulli and Euler polynomials, *J. Math. Anal. Appl.* **497** (2021), Article 124855.
- 26 I. Gonzales, **L. Jiu**, and V. H. Moll, An extension of the method of brackets. Part 2, *Open Math.* **18** (2020), 983–955.
- 25 **L. Jiu** and C. Koutschan, Calculation and properties of zonal polynomials, *Math. Comput. Sci.* **14** (2020), 623–640.
- 24 N. Takayama, **L. Jiu**, S. Kuriki, and Y. Zhang, Computations of the Expected Euler Characteristic for the Largest Eigenvalue of a Real Wishart Matrix, *J. Multivariate Anal.* **179** (2020), Article 104642.
- 23 **L. Jiu**, C. Vignat, and T. Wakhare, Analytic Continuation for Multiple Zeta Values using Symbolic Representations, *Int. J. Number Theory* **16** (2020), 579–602.
- 22 **L. Jiu** and C. Vignat, Connection coefficients for higher-order Bernoulli and Euler polynomials: a random walk approach, *Fibonacci Quart.* **57** (2019), 84–95.
- 21 **L. Jiu** and D. Y. H. Shi, Matrix representation for multiplicative nested sums, *Colloq. Math.* **158** (2019), 183–194.
- 20 **L. Jiu** and D. Y. H. Shi, Orthogonal polynomials and connection to generalized Motzkin numbers for higher-order Euler polynomials, *J. Number Theory* **199** (2019), 389–402.
- 19 I. Gonzalez, K. Kohl, **L. Jiu**, and V. H. Moll, The method of brackets in experimental mathematics, *Frontiers of Orthogonal Polynomials and q -Series*, Z. Nashed and X. Li eds., World Scientific Publishers, 2018.
- 18 **L. Jiu**, V. H. Moll, and C. Vignat, A symbolic approach to multiple zeta values at the negative integers, *J. Symbolic Comput.* **84** (2018), 1–13.
- 17 I. Gonzales, K. Kohl, **L. Jiu**, and V. H. Moll, An extension of the method of brackets. Part 1, *Open Math.* **15** (2017), 1181–1211.
- 16 **L. Jiu**, Integral representations of equally positive integer-indexed harmonic sums at infinity, *Research in Number Theory* **3** (2017), Article 3:10.
- 15 C. Li, E. Zhang, **L. Jiu**, and H. Sun, Optimal control on special Euclidean group via natural gradient descent algorithm, *Sci. China Inf. Sci.* **59** (2016), Article: 112203.
- 14 I. Gonzalez, **L. Jiu**, and V. H. Moll, Pochhammer symbol with negative indices. A new rule for the method of brackets, *Open Math.* **14** (2016), 681–686.
- 13 T. Amdeberhan, A. Dixit, X. Guan, **L. Jiu**, A. Kuznetsov, V. H. Moll, and C. Vignat, The integrals in Gradshteyn and Ryzhik. Part 30: trigonometric functions, *Scientia Series A: Mathematical Sciences* **27** (2016), 47–74.
- 12 T. Amdeberhan, A. Dixit, X. Guan, **L. Jiu**, V. H. Moll, and C. Vignat, A series involving Catalan numbers. Proofs and demonstrations, *Elem. Math.* **71** (2016), 109–121.
- 11 **L. Jiu** and C. Vignat, On binomial identities in arbitrary bases, *J. Integer Seq.* **19** (2016), Article 16.5.5.
- 10 **L. Jiu**, V. H. Moll, and C. Vignat, A symbolic approach to some identities for Bernoulli-Barnes polynomials, *Int. J. Number Theory* **12** (2016), 649–662.
- 9 A. Dixit, **L. Jiu**, V. H. Moll, and C. Vignat, The finite Fourier transform of classical polynomials, *J. Aust. Math. Soc.* **98** (2015), 145–160.
- 8 T. Amdeberhan, A. Dixit, X. Guan, **L. Jiu** and V. H. Moll, The unimodality of a polynomial coming from a rational integral. Back to the original proof, *J. Math. Anal. Appl.* **420** (2014), 1154–1166.
- 7 A. Byrnes*, **L. Jiu**, V. H. Moll, and C. Vignat, Recursion rules for the hypergeometric zeta functions, *Int. J. Number Theory* **10** (2014), 1761–1782.
- 6 **L. Jiu**, V. H. Moll, and C. Vignat, Identities for generalized Euler polynomials, *Integral Transforms Spec. Funct.* **25** (2014), 777–789.
- 5 Z. Zhang, H. Sun, **L. Jiu**, and L. Peng, A natural gradient algorithm for stochastic distribution systems, *Entropy* **16** (2014), 4338–4352.
- 4 F. Zhang, H. Sun, **L. Jiu**, and L. Peng, The arc length variational formula on the exponential manifold, *Math. Slovaca* **63** (2013), 1101–1112.
- 3 L. Peng, H. Sun, and **L. Jiu**, The geometric structure of the Pareto distribution, *Bol. Asoc. Mat. Venez.* **14** (2007), 5–13.

- 2 **L. Jiu** and H. Sun, On minimal homothetical hypersurfaces, *Colloq. Math.* 109 (2007), 239–249.
- 1 X. Wang and **L. Jiu**, Characterizing hypersurfaces of generalized rotation through its normal lines, *Journal of Ningde Normal University (Natural Science)* **02** (2006), 117–119.

ACADEMIC TALKS

- 47 **Examples of Computer Proofs: From Elementary to Recent Ones**
Invited Honours Seminar Talk, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Jan. 15, 2025.
- 46 **Multi-headed Lattices and Green Functions**
Invited Seminar Talk, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Oct. 8, 2024.
- 45 **q -Analogue on Hankel Determinants: the q -Euler Numbers and the q -Binomial Transform**
Canadian Number Theory Association XVI, Fields Institute, Toronto, ON, Canada, June 10–14, 2024.
- 44 **Shuffle to One, Shuffle to Normal**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Jan. 31, 2024.
- 43 **Random Walk Models for Identities Involving Bernoulli and Euler Polynomials**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Mar. 6, 2023.
- 42 **Random Walk Model on Finite Number of Sites**
Seminar, School of Mathematics, Anhui University, Online, Oct. 19, 2022.
- 41 **Bernoulli Symbol and Multiple Zeta Function at Non-negative Integers**
The First International Conference on Multiple Zeta Values and Related Topics, Online, Aug. 08–09, 2022.
- 40 **Hankel Determinants of Certain Sequences of Bernoulli and Euler Polynomials**
Seminar, Department of Mathematics, Zhejiang Sci-Tech University, Online, June 12, 2022.
- 39 **Bernoulli and Euler Symbols: Umbral Calculus, Random Variables, and Multiple Zeta Values**
Duke Kunshan University-Shanghai Jiao Tong University Joint Workshop for Mathematics and Data Science, Shanghai, P. R. China, Jan. 5, 2022.
- 38 **Random Walk Models for Non-trivial Identities Involving Bernoulli and Euler Polynomials of Higher-orders**
Suzhou Area Youth Mathematicians 2nd Annual Workshop, Soochow University, Kunshan, Suzhou, Jiangsu Province, P. R. China, Sept. 25–26, 2021.
- 37 **Random Walks and Identities Involving Bernoulli and Euler Polynomials of Higher-order**
Seminar, Institute of Statistics and Big Data, Renmin University of China, Beijing, P. R. China, June 18, 2021.
- 36 **Examples on Computer Proofs**
Seminar, Wuhan University, Wuhan, Hubei Province, P. R. China, May 28, 2021.
- 35 **Hankel Determinant of Sequences Related to Bernoulli and Euler Polynomials**
DKU-WHU Math and Stat Academic Conference, Wuhan University, Wuhan, Hubei Province, P. R. China, May 27, 2021.
- 34 **Hankel Determinant on Sequences Related to Bernoulli and Euler Polynomials**
Suzhou Area Youth Mathematicians 1st Annual Workshop, Duke Kunshan University, Kunshan, Suzhou, Jiangsu Province, P. R. China, Nov. 14–15, 2020.
- 33 **Three Examples on Computer Proofs**
Zu Chongzhi Colloquium Series, Duke Kunshan University, Kunshan, Suzhou, P. R. China, Nov. 6, 2020.
- 32 **Introduction to Four Symbolic Integration Methods: Two Examples**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Sept. 23, 2019.
- 31 **On b -ary Binomial Coefficients**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Sept. 16, 2019.
- 30 **Orthogonal Polynomials for Higher-order Euler Polynomials**
15th International Symposium on Orthogonal Polynomials, Special Functions and Applications, Hagenberg, Austria, July 22–26, 2019.
- 29 **On Harmonic Sums: Integral and Matrix Representations with Connections to Partition-theoretic Generalization of the Riemann Zeta-function and Random Walks**
Analytic and Combinatorial Number Theory: The Legacy of Ramanujan (A conference in honor of Bruce C. Berndt's 80th birthday), University of Illinois at Urbana-Champaign, Urbana, IL, U. S. A., June 6–9, 2019.
- 28 **Random Walk Approaches to Identities on Higher-order Bernoulli and Euler Polynomials**

- American Mathematical Society Spring Southeastern Sectional Meeting*, Auburn University, Auburn, AL, U. S. A., Mar. 15–17, 2019.
- 27 **Random Walk & Identities**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Feb. 25, 2019
- 26 **Matrix Representation for Multiplicative Nested Sums**
2019 Joint Mathematics Meetings, Baltimore, MD, U. S. A., Jan. 16–19, 2019.
- 25 **Orthogonal Polynomials for Bernoulli and Euler Polynomials**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Jan. 7, 2019
- 24 **Three Examples of Computer Proofs of Combinatorial Results**
Honours Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Oct. 17, 2018
- 23 **Matrix Representation for Multiplicative Nested Sums**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Sept. 21, 2018.
- 22 **Bernoulli Symbol and Sum of Powers**
6th International Congress on Mathematical Software, University of Notre Dame, Notre Dame, IN, U. S. A., July 24–27, 2018.
- 21 **Random Walks and Identities for High-order Bernoulli and Euler Polynomials**
18th International Conference on Fibonacci Numbers and Their Applications, Dalhousie University, Halifax, NS, Canada, July 1–8, 2018.
- 20 **Matrix Representations for Bernoulli and Euler Polynomials**
2018 Canadian Mathematical Society Summer Meeting, University of New Brunswick, Fredericton, NB, Canada, June 1–4, 2018.
- 19 **Two Sequences Related to Bernoulli and Euler Numbers**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, May 30, 2018.
- 18 **Hidden Walks**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Feb. 26, 2018.
- 17 **Introduction to Zonal Polynomials**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Jan. 22, 2018.
- 16 **The Probabilistic and Combinatorial Interpretations of the Bernoulli Symbol**
2017 Canadian Mathematical Society Winter Meeting, University of Waterloo, Waterloo, ON, Canada, Dec. 8–11, 2017.
- 15 **Bernoulli Symbol on Multiple Zeta Values at Negative Integers**
23rd Conference on Applications of Computer Algebra (Commemorating the heritage of Jonathan Michael Borwein), Jerusalem College of Technology, Jerusalem, Israel, July 17–21, 2017.
- 14 **Bernoulli Symbol \mathcal{B} : from Umbral Calculus to Random Variable and Combinatorics**
Number Theory Seminar, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Oct. 13, 2017.
- 13 **Visualization of Bernoulli Numbers**
Colloquium, Department of Mathematics and Statistics, Dalhousie University, Halifax, NS, Canada, Oct. 12, 2017.
- 12 **On Bernoulli Symbol \mathcal{B}**
Klagenfurt-Linz-Wien Workshop, Riefnitz, Austria, May 3–6, 2017.
- 11 **The Method of Brackets (MoB) and Integrating by Differentiating (IbD) Method**
Laboratoire des Signaux et Systèmes, Université Paris Sud XI, Orsay, France, Dec. 9, 2016.
- 10 **“Random Walks” for Harmonic Sums**
SFB Statusseminar, Strobl, Austria, Nov. 27–30, 2016.
- 9 **A Hot Pot**
Algorithmic Combinatorics Seminar, Research Institute for Symbolic Computations, Johannes Kepler University, Hagenberg im Mühlkreis, Austria, Oct. 5, 2016.
- 8 **On Binomial Identities in Arbitrary Bases**
Beijing Key Laboratory on Mathematical Characterization, Analysis and Applications of Complex Information, Beijing Institute of Technology, Beijing, China, July 26, 2016.
- 7 **Random Walk: A Probabilistic and Geometric Approach to Number Theory**
International Conference on Mathematical Characterization, Analysis and Applications of Complex Information, Beijing Institute of Technology, Beijing, China, July 19–20, 2016.

- 6 **The Method of Brackets**
5th International Congress on Mathematical Software, The Zuse Institute Berlin, Berlin, Germany, July 11–14, 2016.
- 5 **The Method of Brackets**
Algorithmic Combinatorics Seminar, Research Institute for Symbolic Computations, Johannes Kepler University, Hagenberg im Mühlkreis, Austria, June 22, 2016.
- 4 **Binomial Identities in Arbitrary Bases**
Graduate Students Colloquium, Department of Mathematics, Tulane University, New Orleans, LA., U. S. A., Mar. 8, 2016
- 3 **On Bernoulli Symbol \mathcal{B} and Its Applications**
Center for Combinatorics, Nankai University, Tianjin, China, July 8, 2015.
- 2 **Recursion Rules for the Hypergeometric Zeta Functions**
Midwest Number Theory Conference for Graduate Students and Recent PhDs, X, University of Illinois at Urbana-Champaign, Urbana, IL, U. S. A., June 3–4, 2014.
- 1 **Implementation of an Algorithm on Converting Sums into Nested Sums**
Laboratoire des Signaux et Systemes, Université Paris Sud XI, Orsay, France, Jan. 8, 2014.

HONORS AND AWARDS

| | | |
|------|--|---|
| 2016 | Tea Doctor (for organizing departmental Tea Time) | Depart. of Math., Tulane University |
| 2015 | Tea Master (for organizing departmental Tea Time) | Depart. of Math., Tulane University |
| 2014 | Excellence in Mathematics | Depart. of Math., Tulane University |
| 2013 | Excellent Graduate Student Teacher | Depart. of Math., Tulane University |
| 2008 | Outstanding Graduates | Beijing Institute of Technology |
| 2007 | National Scholarship | Department of Education, P. R. China |
| 2006 | China Aerospace Science and Technology Corporation Scholarship, 2nd Prize | China Aerospace Science and Technology Corporation |

TEACHING EXPERIENCE

| | | | |
|-------------|--------------|---|-------------------------|
| 2025 Winter | MATH 6400 | Integer Partitions and q -Series | Dalhousie University |
| 2024 Fall | MATH 307 | Complex Analysis | Duke Kunshan University |
| 2023 Fall | MATH 105 | Calculus | Duke Kunshan University |
| | MATH 202 | Linear Algebra | Duke Kunshan University |
| | MATH 105 | Calculus | Duke Kunshan University |
| | MATH 301 | Advanced Introduction to Probability | Duke Kunshan University |
| 2023 Spring | MATH 205 | Probability and Statistics | Duke Kunshan University |
| | MINITERM 102 | Experimental Mathematics and Symbolic Computation | Duke Kunshan University |
| 2022 Fall | INDSTU 391 | Introduction to Algebraic Geometry | Duke Kunshan University |
| | MATH 105 | Calculus | Duke Kunshan University |
| | MATH 306 | Number Theory | Duke Kunshan University |
| | MATH 301 | Advanced Introduction to Probability | Duke Kunshan University |
| 2022 Spring | INDSTU 391 | Variational Quantum Algorithms | Duke Kunshan University |
| | MATH 201 | Multivariable Calculus | Duke Kunshan University |
| | MATH 301 | Advanced Introduction to Probability | Duke Kunshan University |
| | MATH 201 | Multivariable Calculus | Duke Kunshan University |
| 2021 Fall | MATH 105 | Calculus | Duke Kunshan University |
| | INDSTU 391 | Riemann Zeta-Function | Duke Kunshan University |
| | INDSTU 391 | Quantum Algorithm | Duke Kunshan University |
| | MATH 306 | Number Theory | Duke Kunshan University |
| | INDSTU 391 | Combinatorics | Duke Kunshan University |
| 2021 Spring | MATH 205 | Probability and Statistics | Duke Kunshan University |
| | MATH 301 | Advanced Introduction to Probability | Duke Kunshan University |
| 2020 Fall | MATH 105 | Calculus | Duke Kunshan University |
| | MATH 201 | Multivariable Calculus | Duke Kunshan University |
| 2019 Summer | MATH 1030 | Matrix Theory and Linear Algebra I | Dalhousie University |
| 2019 Winter | MATH 3080 | Introduction to Complex Variables | Dalhousie University |
| 2016 Spring | MATH 1060 | Long Calculus II | Tulane University |
| 2015 Fall | MATH 1310 | Consolidated Calculus | Tulane University |

2015 Spring MATH 1210 Long Calculus I
 2014 Summer MATH 1160 Long Calculus II

Tulane University
 Tulane University

ACADEMIC SERVICES AND MEMBERSHIPS

Since 2025 Reviewer for Mathematical Reviews
 2025 Organizing the mini-symposium *Special Functions with Applications in Number Theory and Combinatorics* at The Third Joint SIAM/CAIMS Annual Meetings

DEPARTMENTAL AND UNIVERSITY SERVICE

2021– Organizer of the Discrete Math Seminar Duke Kunshan University
 2024 Member of 2025 Undergraduate Recruitment & Admissions Evaluation Duke Kunshan University
 2017–2020 Organizer of the Number Theory Seminar Dalhousie University
 2012–2016 Organizer of the Tee Time Tulane University

STUDENT MENTORING

UNDERGRADUATE ACADEMIC ADVISOR @ DUKE KUNSHAN UNIVERSITY

| Class of | Number of Students | Names |
|----------|--------------------|---|
| 2022 | 1 | Ziang Zhou |
| 2023 | 6 | Heng Yue, Junyu Shi, Lezhen Qin, Mengfan Gong, Yushan Gu, Shi Wang |
| 2024 | 3 | Jeff Ulmasov, Jing Gu, Yuekang Li |
| 2025 | 1 | Jiaqi Wang |
| 2026 | 3 | Baoguanyan Kang, Dalia Guerrero Flores, Lei Wu, |
| 2027 | 4 | Jinggege Li, Rui Ling, Shengjie Bai, Yunjie Guo |
| 2028 | 5 | Binghan Cheng, Feiyang Zhong, Rustam Safaev, Shengyu Xu, Yihang Yin |
| TOTAL | 23 | |

UNDERGRADUATE SIGNATURE WORK (SW)¹ (\cong HONOR THESIS) MENTOR @ DUKE KUNSHAN UNIVERSITY

| Class of | Number of Projects | Names |
|----------|--------------------|--|
| 2023 | 7 | Heng Yue, Junyu Shi, Lezhen Qin, Mengfan Gong, Siyuan Wu, Ye Li, Youzhang He |
| 2024 | 3 | Hongkai Zhu, Matilde Molinari Giglietti, Shuhan Li |
| TOTAL | 10 | |

UNDERGRADUATE STUDENT RESEARCH PROJECTS

| Year/Term | Student(s) | Project(s) | Result/Comments |
|-------------|-------------------------------------|--|--|
| 2021 Summer | Heng Yue Ye Li | Loop Decomposition of Random Walks Hankel Determinants on Some sequences | [29] in the Publication section [35] in the Publication section |
| 2022 Summer | Siyuan Wu Duanduan Wang | The Method of Brackets b -ary Related Sequences | Mathematica Package [38] in the Publication section |
| 2023 Summer | Shuhan Li Hongkai Zhu | Hankel Determinants and Continued Fractions Weakly Increasing Trees on a Multiset | [39] in the Publication section Mathematica Package for SW |
| 2024 Summer | Jonah Barrington Julius Frizzell | On Cyclotomic Polynomials Factorization of Large Primes | Co-mentored with K. Dilcher @ Dalhousie University |

RELEVANT SKILLS

Language: Mandarin (native), English (fluent)
Computer: Mathematica, SageMath, Python, Maple, \LaTeX , LyX
Packages: Zonal.sage <https://jiulin90.github.io/Packages/Zonal.sage>
 BNE.sage <https://jiulin90.github.io/Packages/BNE.sage>

¹<https://signature-work.dukekunshan.edu.cn/signature-work-overview/>