Fu-Tsun Wei

Curriculum Vitae

Date August 26, 2026

Personal Data

Mailing Address: Department of Mathematics, National Tsing Hua University, No. 101, Sec. 2, Guangfu Rd., Hsinchu 300, Taiwan

Email Address: ftwei@math.nthu.edu.tw

Personal website: http://www.math.nthu.edu.tw/∼ftwei/

Employment

2021/Aug-present **Professor**, *Department of Mathematics, National Tsing Hua University, Taiwan*.

2018/Aug-2021/Jul **Associate Professor**, *Department of Mathematics, National Tsing Hua University, Taiwan*.

2016/Aug-2018/Jul **Assistant Professor**, *Department of Mathematics, National Central University, Taiwan*.

2013/Sep-2016/Jul **Research Scholar**, *Institute of Mathematics, Academia Sinica, Taiwan*.

2010/Oct-2013/Sep **Post-doctor (military service)**, *Department of Mathematics, National Tsing Hua University, Taiwan*.

Education

2005–2010 **PhD in Mathematics** , *National Tsing Hua University*.
PhD Thesis: On Arithmetic of Curves over Function Fields.
Advisor: Professor Jing Yu

2003-2005 **MS in Mathematics**, *National Tsing Hua University*.
MS Thesis: On Structure of Drinfeld Modules.
Advisor: Professor Jing Yu

1999-2003 **BS in Mathematics**, *National Taiwan Normal University*.

Research Interest

Number Theory

Special values of Eisenstein series over function fields

Drinfeld modular varieties and Drinfeld modular forms

Drinfeld modules, t-modules, and t-motives

Publications

[1] Fu-Tsun Wei and Jing Yu, On the independence of Heegner points in the function field case, **Journal of Number Theory** 130 (2010) 2542-2560.

[2] Fu-Tsun Wei and Jing Yu, Theta series and function field analogue of Gross formula, **Documenta Mathematica** 16 (2011) 723-765.

[3] Fu-Tsun Wei and Chia-Fu Yu, Mass formula of division algebras over global function fields, **Journal of Number Theory** 132 (2012) 1170-1184.

[4] Fu-Tsun Wei, On metaplectic forms over function fields, **Mathmatische Annalen** Volume 355 Issue 1 (2013) 235-258.

[5] Fu-Tsun Wei, On Rankin triple product L-functions over function fields: central critical values, **Mathematische Zeitschrift** Volume 276 Issue 3 (2014) 925-951.

[6] Fu-Tsun Wei and Chia-Fu Yu: Class numbers of central simple algebras over global function fields, **International Mathematics Research Notices** rnu038, 51 (2014) 1-51.

[7] Chih-Yun Chuang & Ting-Fung Lee & Fu-Tsun Wei & Jing Yu, Brandt matrices and theta series over global function fields, **Memoirs of the American Mathematical Society** Volume 237 Number 1117 (2015).

[8] Fu-Tsun Wei: On the Siegel-Weil formula over function fields, **The Asian Journal of Mathematics** Volume 19 Number 3 (2015) 487-526.

[9] Mihran Papikian & Fu-Tsun Wei, The Eisenstein ideal and Jacquet-Langlands isogeny over function fields, **Documenta Mathematica** 20 (2015) 551-629.

[10] Mihran Papikian & Fu-Tsun Wei, On the Eisenstein ideal over function fields, **Journal of Number Theory** (Special issue in honor of Winnie Li) 161 (2016) 384-434.

[11] Chih-Yun Chuang & Fu-Tsun Wei & Jing Yu, On central critical values of Rankin-type L-functions over global function fields, **Proceedings of London Mathematical Society** (3) 114 (2017) 333-373 (DOI: 10.1112/plms.12009).

[12] Fu-Tsun Wei, Kronecker limit formula over global function fields, **American Journal of Mathematics**. vol. 139 no. 4 (2017) 1047-1084.

[13] Mihran Papikian & Fu-Tsun Wei, The rational torsion subgroups of Drinfeld modular Jacobians and Eisenstein pseudo-harmonic cochains, **Mathematische Zeitschrift** Volume 287 Issue 1-2 (2017) 521-546 (DOI 10.1007/s00209-016-1835-2).

[14] Fu-Tsun Wei, Green's functions on Mumford curves, **Mathmatische Annalen** Vol. 370, Issue 3-4 (2017) 1571-1605 (DOI 10.1007/s00208-017-1560-0).

[15] Chih-Yun Chuang & Fu-Tsun Wei, Waldspurger formula over function fields, **Transactions of the American Mathematical Society** 371 (2019) 173-198.

[16] Fu-Tsun Wei & Takao Yamazaki, Generalized Jacobians of modular and Drinfeld modular curves, **Forum Mathematicum** Volume 31 Issue 3 (2019) 647-659.

[17] Fu-Tsun Wei, On the derivative of Siegel-Eisenstein series over function fields, **Journal of the London Mathematical Society** (2) 100 (2019) 518-544.

[18] Fu-Tsun Wei, On Kronecker terms over global function fields, **Inventiones mathematicae** 220 (2020) 847-907.

[19] Cécile Armana & Fu-Tsun Wei, On Sturm-type bounds for modular forms over function fields, **Journal of Number Theory** 237 (2020) 67-98.

[20] Jia-Wei Guo & Fu-Tsun Wei, On class number relations and intersections over function fields, **Documenta Mathematica** 27 (2022) 1321-1368.

[21] Jia-Wei Guo & Fu-Tsun Wei, On CM masses over global function fields, **Mathematische Zeitschrift** 303, 29 (2023).

[22] Mihran Papikian & Fu-Tsun Wei, Drinfeld discriminant function and Fourier expansion of harmonic cochains, **Mathematische Annalen** 388 (2024) 379-1435.

[23] Fu-Tsun Wei, Algebraic relations among special gamma values and the Chowla-Selberg phenomenon over function fields, **Inventiones mathematicae** vol. 244 (2026) 815-897.

[24] Özge Ülkem and Fu-Tsun Wei, Intersections of Hecke correspondences on the modular varieties of $\mathcal{D}$-elliptic sheaves, to appear in **Transactions of the American Mathematical Society**.

[25] Chieh-Yu Chang, Fu-Tsun Wei, and Jing Yu, Algebraic relations of special v-adic arithmetic gamma values and their period interpretations, to appear in **Compositio Mathematica**.

Preprints

[1] W. Dale Brownawell, Chieh-Yu Chang, Matthew A. Papanikolas, and Fu-Tsun Wei, Function field analogue of Shimura's conjecture on period symbols, submitted.

[2] Fu-Tsun Wei, Several-variable Kronecker limit formula over global function fields, submitted.

[3] Fu-Tsun Wei, v-adic Chowla–Selberg formula over function fields, preprint.

Honors

2005 National Tsing Hua University Chancellor Scholarship.

2010 Ph. D. Dissertation Gold Medal Award of the Mathematical Society of the Republic of China.

2012 Post Doctoral Research Article Award of National Science Council.

2016 2016 NCTS Young Theoretical Scientists Award.

2018 The 6th Young Scholar Innovation Award, Foundation for the Advancement of Outstanding Scholarship.

2018 Ta-You Wu Memorial Award, Ministry of Science and Technology.

2018 Outstanding Research Award, Ministry of Science and Technology.

2019 New Faculty Research Award, National Tsing Hua University.

2019 Young Mathematician Award, The Mathematical Society of ROC.

2019 ICCM Best Paper Award – Distinguished Paper.

2020 ICCM Best Paper Award – Silver Medal.

2022 Academia Sinica Early Career Investigator Research Achievement Award.

2023 Outstanding Research Award, National Science and Technology Council.

International Visiting

2009 Mar -Nov McGill University, Montreal, Canada (supported by the Graduate Students Study Abroad Program of National Science Council).

2011 Sep-Dec McGill Unversity, Montreal, Canada (funded by the Centre Interuniversitaire en Calcul Mathématique Algébrique).

2013 Mar-Jul Max Planck Institute for Mathematics, Bonn, Germany (granted by the Max Planck Institute).

2013 Dec -2014 Feb Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France (granted by IHÉS).

2014 May 1-11 Hong Kong University of Science and Technology, Hong Kong (granted by HKUST).

2016 Mar 6-31 National University of Singapore, Singapore (granted by IMS).

2020 Feb 2-8 University of Newcastle, Australia.

Invited talks

2007/11/3,4	Conference on "Galois theory and related topics" at Yamagata University, Yamagata, Japan.
2009/12/16-20	2009 Joint Meeting of the KMS and AMS at Ewha Womans University, Seoul, Korea.
2009/12/19-20	POSTECH BSRI 2009 Special Year Program "The first POSTECH-Taiwan Workshop-Number Theory" at Postech, Pohang, Korea.
2010/7/7-9	2010 NCTS International Conference on Automorphic Forms and Related Topics at NCTS, Hsinchu, Taiwan.
2011/6/20-23	2011 NCTS International Conference on Galois Representations, Automorphic Forms and Shimura Varieties at NCTS, Hsinchu, Taiwan.
2011/8/16-19	The Arithmetic of Function Fields and Related Topics at ASARC, Gyeongju, Korea.
2012 1/16-19	East Asia Number Theory Conference at TIMS-NTU, Taipei, Taiwan.
2012 4/19	Workshop in Number Theory at Tsinghua University, Beijing, China.
2012 8/13-18	Penn State-Göttingen Number Theory Conference 2012 at Göttingen University, Göttingen, Germany.
2012 8/27-9/7	2012 NCTS Japan-Taiwan Joint Conference on Number Theory at NCTS, Hsinchu, Taiwan.
2013 4/18	Oberseminar at Max Planck Institute for Mathematics, Bonn, Germany.
2013 5/2	Number Theory Lunch Seminar at Max Planck Institute for Mathematics, Bonn, Germany.
2013 6/10	Number Theory Seminar at Universität des Saarlandes, Saarbrücken, Germany.
2013 6/28	Oberseminar at University Heidelberg, Heidelberg, Germany.
2014 2/11	Séminaire de Mathématiques at Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France.
2014 5/2,5,7,9	Lectures on Drinfeld modules at Hong Kong University of Science and Technology, Hong Kong.
2014 5/7	IMS Number Theory Seminar at The Chinese University of Hong Kong, Hong Kong.
2014 6/9-13	Workshop on Function Field Arithmetic, Şirince, Turkey.
2014 9/1-6	Taiwan-Japan Joint Conference on Number Theory 2014, Kesennuma, Japan.
2014 12/6,7	The International Mathematical Meeting and the Annual Meeting of the Taiwanese Mathematical Society at National Cheng Kung University, Tainan, Taiwan.
2016 1/18-22	Conference on Algebraic Number Theory at Tsinghua Sanya International Mathematical Forum, Hainan, China.
2016 3/6-31	New Developments in Representation Theory at Institute of Mathematical Sciences, National University of Singapore.
2016 7/11-15	Pan Asia Number Theory Conference 2016 at Academia Sinica, Taipei City, Taiwan.
2016 8/22-26	The 6th East Asia Number Theory Conference at Chern Institute of Mathematics, Nankai University, Tianjin, China.
2016 9/8-13	Japan-Taiwan Joint conference on Number theory 2016 at National Center for Theoretical Sciences, Taipei City, Taiwan.
2016 12/10,11	2016 Taiwan Mathematical Society Annual Meeting at National Dong Hwa University, Hualien, Taiwan.
2017 6/26-30	Arithmetic of Function Fields, dedicated to the memory of David Goss, Münster, Germany.
2017 9/11-15	Workshop on P-Adic L-Functions and Algebraic Cycles at Academia Sinica, Taipei, Taiwan.
2018 9/3-7	Japan-Taiwan Joint conference on Number theory 2018 at Goto city, Nagasaki, Japan.

2018 11/5-9 New developments in the theory of modular forms over function fields at Centro di Ricerca Matematica, Pisa, Italy.

2018 12/8,9 2018 Taiwan Mathematical Society Annual Meeting at National Taiwan Normal University, Taipei, Taiwan.

2019 3/22-24 AMS Sectional Meeting, at the University of Hawaii, Manoa, Honolulu, Hawaii., USA.

2019 5/30-6/1 2019 Postech-PMI and NCTS Joint workshop on number theory, Postech, Pohang, Korea.

2019 6/10,11 The 8th International Congress of Chinese Mathematicians, Tsinghua University, Beijing, China.

2019 8/25-30 The 8th East Asia Number Theory Conference, KAIST, Daejeon, Korea.

2020 6/3-5 Number Theory Online Conference, CARMA.

2020 10/3,4 AMS Eastern Sectional Meeting, Online.

2020 12/5,6 TMS Annual Meeting, Fu-Jen Catholic University, Taipei, Taiwan.

2020 12/29 ICCM Annual meeting, online.

2022 7/18-22 AMS-EMS-SMF Joint International Meeting 2022, Université Grenoble Alpes, Grenoble, France.

2022 9/21,22 NCTS workshop on Function Field Arithmetic, National Tsing Hua University, Hsinchu, Taiwan.

2023 1/16,17 TMS Annual Meeting, National Tsing Hua University, Hsinchu, Taiwan.

2023 2/13-17 The 10th East Asia Number Theory Conference, Online.

2024 7/23-26 THE 2nd AMS-UMI International Joint Meeting, Palermo, Italy.

2025 12/15-19 2025 Taipei Conference on Arithmetic Geometry, Academia Sinica, Taipei, Taiwan.

2026 6/11,12 Workshop on Arithmetic of Function Fields, National Cheng-Kung University, Tainan, Taiwan.

Conferences organized

2023 8/21-25 Japan – Taiwan Joint Conference on Number Theory 2023, National Penghu University of Science and Technology, Penghu, Taiwan.

2024 1/8-11 Postech PMI – NCTS Joint Workshop on Number Theory, POSCO ChangeUp Ground, South Korea.

Conferences attended

2005 12/5-9 "Algebraic Number Theory and Related Topics" at RIMS, Kyoto.

2006 7/17-29 Asian-French Summer School in Algebraic Geometry and Number Theory 2006: Motives and relative topics at IHÉS.

2007 6/18-27 Conference on Langlands and Geometric Langlands Program at Guangzhou, China.

2007 7/9-27 Summer school and conference on Automorphic forms and Shimura varieties at ICTP, Italy.

2009 6/22-7/3 Automorphic forms and L-functions: computational aspects at Montreal University, Montreal, Canada.

2009 9/27-10/2 t-motives: Hodge structures, transcendence and other motivic aspects at BIRS, Banff, Canada.

2011 1/14-1/21 Postech Winter School 2011: Serre's modularity conjecture at Postech, Pohang, Korea.

2011 3/12-16 Arizona Winter School 2011: Stark-Heegner points, University of Arizona in Tucson, AZ., U.S.A.

2012 1/6-14 Postech Winter School 2012: The Birch and Swinnerton-Dyer conjecture at Postech, Pohang, Korea.

2013 6/3-7	Arithmetic & Geometry: 25 Years Number Theory Seminar at ETH, Zürich, Switzerland.
2013 7/1-7/5	Journées Arithmétiques JA2013 at Université Grenoble I, Grenoble, France.
2015 1/18-23	GYSS@one-north 2015 at Nanyang Technological University, Singapore.
2017 7/19-28	Iwasawa 2017 at University of Tokyo, Tokyo, Japan.
2019 12/16-18	Conference of 2019 International Consortium of Chinese Mathematicians Best Paper Award, Sanya, China.
2021 8/23-27	The 9th East Asia Number Theory Conference, online.
2022 12/28-30	The 10th(2022) NCTS-Postech-PMI Joint Workshop on Number Theory, NCTS, Taipei, Taiwan.
2023 7/17-21	Iwasawa Theory 2023: in memory of John Coates, University of Cambridge, Cambridge, UK.
2025 8/18-22	Arithmetic cycles, Modular forms, and L-functions, Montreal, Canada.
2026 1/21,22	TMS Annual Meeting, National Chung Cheng University, Chiayi, Taiwan.
2026 8/3-7	Gross–Zagier formula, 40 years later, Massachusetts Institute of Technology, Massachusetts, USA.

Teaching Experience

Instructor

2007 Fall	Abstract Algebra I, National Hsinchu University of Education.
2008 Spring	Abstract Algebra II, National Hsinchu University of Education.
2010 Summer	Elementary Calculus I&II, National Tsing Hua University.
2016 Fall	Algebra I (graduate course), National Central University.
2017 Spring	Algebra II (graduate course), National Central University.
2017 Fall	Algebra I (graduate course), National Central University.
2018 Spring	Algebra II (graduate course), National Central University.
2018 Fall	Modern Algebra I (graduate course), National Tsing Hua University.
2018 Fall	Local Theory of Representation on GL(2), National Center for Theoretical Sciences.
2019 Spring	Modern Algebra II (graduate course), National Tsing Hua University.
2019 Fall	Algebraic Number Theory (graduate course), National Tsing Hua University.
2019 Fall	On Topics of Drinfeld Modules and t-Motives, National Center for Theoretical Sciences.
2020 Spring	Elementary Number Theory, National Tsing Hua University.
2020 Spring	On Topics of Drinfeld Modules and t-Motives, National Center for Theoretical Sciences.
2020 Fall	Calculus I, National Tsing Hua University.
2021 Spring	Calculus II, National Tsing Hua University.
2021 Spring	Elementary Number Theory, National Tsing Hua University.
2021 Fall	Modern Algebra I (graduate course), National Tsing Hua University.
2021 Fall	Topics on the arithmetic of modular forms (graduate course), National Tsing Hua University.
2022 Spring	Modern Algebra II (graduate course), National Tsing Hua University.
2022 Fall	Elementary Number Theory, National Tsing Hua University.
2022 Fall	Modern Algebra I (graduate course), National Tsing Hua University.
2023 Spring	Modern Algebra II (graduate course), National Tsing Hua University.
2023 Fall	Linear Algebra I, National Tsing Hua University.
2023 Fall	Topics on arithmetic of function fields, National Tsing Hua University.
2024 Spring	Linear Algebra II, National Tsing Hua University.
2024 Fall	Algebra I, National Tsing Hua University.

2025 Fall Modern Algebra I (graduate course), National Tsing Hua University.

2026 Spring Modern Algebra II (graduate course), National Tsing Hua University.

2026 Spring Elementary Number Theory, National Tsing Hua University.

Postdocs, Students and Assistants

Postdocs

2020 Sep - 2022 Aug Andy Kong, National Tsing Hua University

2022 Aug - 2025 Jul Chien-Hua Chen, National Center for Theoretical Sciences

Ph. D. Students

2021 Aug - 2022 Jul Ming-Ting Zhong, National Tsing Hua University

2022 Aug - present Guan-Ting Chen, National Tsing Hua University

2023 Aug - present Ting-Wei Chang, National Tsing Hua University

2025 Aug - present Jun-Hao Huang, National Tsing Hua University

Master Students

2016 Dec - 2019 Jan Ying-Jung Chen, National Central University

2019 Jan - 2021 Jan Guan-Ting Chen, National Tsing Hua University

2020 Jan - 2022 Jan Tsi-Min Lin, National Tsing Hua University

2020 Jan - 2022 Jan Chu-Jun Dou, National Tsing Hua University

2020 Dec - 2022 Jun Wei-Chun Wang, National Tsing Hua University

2020 Dec - 2022 Jul Hong-Yi Wang, National Tsing Hua University

2022 Aug - 2023 Jul Ting-Wei Chang, National Tsing Hua University

2023 Aug - 2025 Jun Min-Yi Shen, National Tsing Hua University

2024 Jan - 2025 Jul Jun-Hao Huang, National Tsing Hua University

2026 Jan - present Ping-Chen Ke, National Tsing Hua University

Research Assistants

2020 Sep - 2022 Mar Chih-Chiang Kao, National Center for Theoretical Sciences

2022 Feb - 2022 Jul Guan-Ting Chen, National Center for Theoretical Sciences

2023 Feb - 2024 Feb | Hong-Yi Wang, National Center for Theoretical Sciences

Computer skill

Mathematical software | Mathematica, Magma, SageMath