Curriculum Vitae

Name: Masataka Chida

Nationality: Japanese

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Affiliation: School of Science and Technology for Future Life, Tokyo Denki Universty

Degree: Ph. D (Science)

Employment

• April 2007 – March 2008, Assistant Professor at Tohoku University (The 21 Century COE program).

- April 2008 March 2010, Postdoctoral fellow of JSPS (Japan Society of Promotion of Science) at Kyoto University.
- April 2010 March 2015, Assistant Professor at Kyoto University (Hakubi project).
- April 2015 March 2018, Assistant Professor at Tohoku University.
- April 2018 August 2018, Researcher/Assistant Research Staff at Kyoto University.
- September 2018 August 2023, Associate Professor at Tokyo Denki University.
- September 2023 , Professor at Tokyo Denki University.

Education

- B.S., March 2002, Tohoku University.
- Master degree of Science, March 2004, Tohoku University.
- Doctoral degree of Science, March 2007, Tohoku University.

Honors

- Tohoku University President Award, March 2004.
- Kawai Prize (Kawai Fundation), March 2007.
- Aoba Science Society Prize, March 2007.

Research Interests

- Number theory.
- Iwasawa theory.
- Special values of automorphic *L*-functions.

Publications

- 1. Masataka Chida, Products of special values of modular L-functions and their applications, Acta Arithmetica 116 (2005), 99–114.
- 2. Masataka Chida, On simultaneous non-vanishing of modular L-functions, Archiv der Mathematik 89 (2007), 211–215.
- 3. Masataka Chida and Masanobu Kaneko, On ordinary primes for modular forms and the theta operator, Proceedings of the American Mathematical Society 135 (2007), 1001–1005.
- 4. Masataka Chida, On the equivariant Tamagawa number conjecture for Hecke characters, RIMS Kokyuroku Bessatsu 4 (2007), 197–221.
- 5. Masataka Chida, *Indivisibility of orders of Selmer groups for modular forms*, International Journal of Number Theory **5**, No. 2 (2009), 271–280.
- 6. Masataka Chida, Hidenori Katsurada and Kohji Matsumoto, On Fourier coefficients of Siegel modular forms of degree two with respect to congruence subgroups, Abhandlungen aus dem Mathematischen Seminar der Universitat Hamburg 84 No. 1 (2014) 31–47.
- 7. Masataka Chida, *Indivisibility of central values of L-functions for modular forms*, Proceedings of the American Mathematical Society **143** (2015), 2829–2840.
- 8. Masataka Chida, Satoshi Kondo and Takuya Yamauchi, On the rational K₂ of a curve of GL₂-type over a global field of positive characteristic, Journal of K-theory **14** (2014) 313–342.
- 9. Masataka Chida, Chung Pang Mok and Jeehoon Park, On Teitelbaum type L-invariants of Hilbert modular forms attached to definite quaternions, Journal of Number Theory 147 (2015) 633–665.
- 10. Masataka Chida and Ming-Lun Hsieh, On the anticyclotomic Iwasawa main conjecture for modular forms, Compositio Mathematicae 151 (2015), 863–893.
- 11. François Brunault and Masataka Chida, Regulators for Rankin-Selberg products of modular forms, Annales des Sciences Mathematiques du Québec 40 (Special issue marking the 60th birthday of Glenn Stevens) (2016), 221–249.
- 12. Masataka Chida, Selmer groups and central values of L-functions for modular forms, Annales de l'Institut Fourier 67 (2017), 1231–1276.

- 13. Masataka Chida and Ming-Lun Hsieh, Special values of anticyclotomic L-functions for modular forms, Journal für die reine und angewandte Mathematik **741** (2018), 87–131.
- 14. Masataka Chida and Ming-Lun Hsieh, *The derivative formula of p-adic L-functions for imaginary quadratic fields at trivial zeros*, Annales des Sciences Mathématiques du Québec **47** (2023), 1–30, Special issue in honour of Bernadette Perrin-Riou (Part 2).
- 15. Masanori Asakura and Masataka Chida, A numerical approach toward the p-adic Beilinson conjecture for elliptic curves over \mathbb{Q} , Research in the Mathematical Sciences 11, Article number: 11 (2023).
- 16. Hiraku Atobe, Masataka chida, Tomoyoshi Ibukiyama, Hidenori Katsurada and Takuya Yamauchi, *Harder's conjecture I*, Journal of the Mathematical Society of Japan **75** (2023), 1339-1408

Selected Conference/Seminar Talks

- 1. MSJ Spring Meeting 2024 (Featured Invited Talks), On generalizations of p-adic Gross-Zagier formula, 2024 March 20, Osaka Metropolitan University.
- 2. Conference "Automorphic forms and number theory" (In honor of Professor Tamotsu Ikeda's 60th birthday), Arithmetic diagonal cycles on Kuga-Sato varieties, 2023 January 11, Kyoto University.
- 3. Conference "Workshop on the congruence ideals and p-adic L-functions", Special values of p-adic L-functions on Shimura curves over totally real fields, 2019 December 10, Academia Sinica, Taiwan.
- 4. Conference "Regulators in Niseko" Special values of p-adic L-functions and p-adic regulator for elliptic curves, 2019 September 9, Niseko Hilton hotel, Japan.
- 5. Conference "Shimura varieties, representation theory and related topics, 2019", Special values of p-adic L-functions on Shimura curves over totally real fields, 2019 July 19, Hokkaido University, Japan.
- Conference "Value distribution of zeta and L-functions and related topics", On central values of L-functions for modular forms and orders of Selmer groups, 2019 March 26, RIKEN, Japan.
- 7. AMS Special Session on Recent Advances and Applications of Modular Forms, Special values of p-adic hypergeometric functions and p-adic L-functions for elliptic curves, 2019 March 22, University of Hawaii at Manoa, USA.
- 8. UK-Japan Winter School 2018 on Number Theory, Arithmetic diagonal cycles and special values of p-adic L-functions I and II, 2018 January 10 and 11, King's College London, UK.
- 9. Conference on *p*-adic *L*-functions and algebraic cycles, Chow-Heegner cycles on self-products of CM elliptic curves, 2017 September 15, National Taiwan University, Taiwan.

- 10. Fukuoka International Conference on Arithmetic Geometry in 2017, Chow-Heegner cycles on products of CM elliptic curves, 2017 April 20, Kyushu University, Fukuoka, Japan.
- 11. p-adic methods in arithmetic geometry at Sendai 2016, Selmer gorups and the central values of Rankin-Selberg L-functions, 2016 November 1, Tohoku University, Sendai, Japan.
- 12. Small workshop in Number Theory, CM cycles and Bloch-Kato conjecture for modular forms, 2015 December 14, Fudan University, Shanghai, China.
- 13. Workshop on Iwasawa theory and (p-adic) Beilinson conjectures, Beilinson-Flach elements for higher weight modular forms, 2015 September 17, Bogazici University, Turkey.
- 14. Workshop on Iwasawa theory and (p-adic) Beilinson conjectures, Selmer groups and the central values of L-functions for modular forms, 2015 September 15, Bogazici University, Turkey.
- 15. Conference on modular forms and automorphic representations, Regulators and special values of Rankin-Selberg L-functions, 2015 February 5, RIMS (Kyoto University).
- 16. Japan-Korea Number Theory Seminar, Regulators and special values of Rankin-Selberg L-functions, 2014 November 22, Keio University, Japan.
- 17. NCTS Number Theory seminar, Beilinson conjecture for Rankin-Selberg products of modular forms, 2014 September 11, National Taiwan University, Taiwan.
- 18. Japan-Taiwan joint conference on Number Theory, Beilinson conjecture for Rankin-Selberg products of modular forms, 2014 September 5, Kesennuma-Ohshima, Japan.
- 19. p-adic variation in Number Theory, Explicit regulators for Rankin-Selberg products of higher weight modular forms, 2014 June 5, Boston University, USA.
- 20. Séminaire d'arithmetique a Lyon, Central *L*-values for modular forms and CM cycles on Kuga-Sato varieties, 2014 February 25, ENS de Lyon, France.
- 21. East Asia Number Theory Conference, Anticyclotomic Iwasawa main conjecture for modular forms, 2014 January 21, Nishijin plaza, Fukuoka, Japan.
- 22. NCTS Number theory seminar, Introduction to Beilinson conjecture for modular curves, 2014 January 14, National Taiwan University, Taiwan.
- 23. The 16th Autumn workshop on number theory, Anticyclotomic Iwasawa main conjecture for modular forms, 2013 November 8, Hakuba, Japan.
- 24. Number theory seminar, Anticyclotomic Iwasawa main conjecture for modular forms, 2013 October16, University of Toronto, Canada.
- 25. Arithmetic geometry seminar, Anticyclotomic Iwasawa main conjecture for modular forms, 2013 October 11, McMaster University, Canada.

- 26. Summer number theory in Milano, CM-cycles on Kuga-Sato varieties and vanishing cycles, 2013 June 25, Milano University, Italy.
- 27. Séminaire de theorie des nombres de l'IMJ, Anticyclotomic Iwasawa main conjecture for modular forms, 2013 January 14, Université Pierre et Marie Curie, France.
- 28. Mini-Workshop on Arithmetic, Anticyclotomic Iwasawa main conjecture for modular forms, 2012 December 17, National Taiwan University, Taiwan.
- 29. Séminaire d'arithmetique a Lyon, Anticyclotomic *p*-adic *L*-functions for modular forms, 2012 November 20, ENS de Lyon, France.
- 30. Séminaire Groupes Reductifs et Formes Automorphes, Anticyclotomic *p*-adic *L*-functions for modular forms, 2012 October 8, Université Pierre et Marie Curie, France.
- 31. The 15th Autumn workshop on number theory, Indivisibility of L-values, 2012 October 29, Hakuba, Japan.
- 32. 2012 NCTS Japan-Taiwan Joint Conference on Number Theory, Anticyclotomic *p*-adic *L*-functions for modular forms, 2012 August 29, National Center for Theoretical Sciences, Taiwan.
- 33. TIMS mini course in Number Theory, L-functions and rational points on elliptic curves, 2011 September 26–29, National Taiwan University.
- 34. Workshop on Iwsawa Main Conjecture for GL(2), Construction of Klingen Eisenstein series via pull-back of Siegel Eisenstein series, 2010 December 13, The Chinese University of Hong Kong, Hong Kong.
- 35. Workshop on Iwsawa Main Conjecture for GL(2), Klingen Eisenstein series on U(2,2), 2010 December 12, The Hong Kong Polytechnic University, Hong Kong.
- 36. Number Theory day, Heegner points on modular curves, 2010 August 26, The Chinese University of Hong Kong, Hong Kong.
- 37. Iwasawa 2010 conference, On Teitelbaum type *L*-invariants of Hilbert modular forms attached to definite quaternions, 2010 July 9, Fields Institute, Toronto University.
- 38. Postech special year program "Euler systems and rational points on elliptic curves", Arithmetic units and rational points on elliptic curves via p-adic method, 2010 January 15 18 (4 lectures), Postech, Korea.
- 39. Quebec-Vermont Number Theory Seminar, Selmer groups and central values of *L*-functions for modular forms, 2009 March 19, Concordia University, Canada.
- 40. Japanese-German 2nd Number Theory conference, Heegner elements and L-series, 2008 February 18, Max Planc Institute for Mathematics (Bonn), Germany.
- 41. East Asia Number Theory Conference, On the anti-cyclotomic *p*-adic *L*-functions for modular forms, 2008 February 23, KIAST, Korea.

- 42. Conference on Shimura varieties and Automorphic forms, On the equivariant Tamagawa number conjecture for Hecke characters, 2007 May 31, Kyoto University, Japan.
- 43. Caltech Number Theory Seminar, On the equivariant Tamagawa number conjecture for Hecke characters over imaginary quadratic fields, 2006 December 8, Caltech, USA.
- 44. Wisconsin Number Theory Seminar, Indivisibility of orders of Selmer groups for modular forms, 2006 February 14, University of Wisconsin.
- 45. Mid West Number Theory Conference for Graduate Students III, On Beilinson-Bloch conjecture for modular forms, 2005 November 5, University of Wisconsin.
- 46. Japanese-German Number Theory Workshop, Simultaneous non-vanishing of twisted modular *L*-functions, 2005 July 28, Max Planc Institute for Mathematics (Bonn), Germany.
- 47. Symposium on Arithmetic Geometry and Number Theory, On critical values of twisted modular L-functions, 2005 March 22, Nijino Matsubara Hotel (Karatsu), Japan.

Conferences Organized

- 1. 2007 October 8–12, Workshop on Heegner point and Gross-Zagier formula (with Takuya Yamauchi), Tohoku University.
- 2. 2008 February 14 Tohoku Number Theory Conference (with Hisao Taya and Takao Yamazaki), Tohoku University.
- 3. 2009 July 28–30, Conference on *p*-adic automorphic forms and arithmetic geometry (with Tetsushi Ito), Kesennuma-Ohshima.
- 4. 2009 August 17–21, The 17th Number Theory Summer School "Number theory of ℓ-adic Galos representations and Galois deformation" (with Tadashi Ochiai and Takuya Yamauchi), Apical inn Kyoto.
- 5. 2010 October 8–11, Conference on Special values of *L*-functions and arithmetic geometry (with Tetsushi Ito), Miyama (Kyoto).
- 6. 2011 April 8–10, Iwasawa Theory Mini Conference, Kyoto University.
- 7. 2012 April 9–11, Mini Conference on Arithmetic Geometry and related topics (with Tetsushi Ito, Takashi Taniguchi and Yoichi Mieda), Kyoto University.
- 8. 2013 April 2–6, Workshop on Iwasawa theory and *p*-adic family of automorphic forms, Kyoto University.
- 9. 2014 April 4–5, Mini-Workshop on Iwasawa Theory, Kyoto University.
- 10. 2014 September 1–6 , 2nd Japan-Taiwan joint conference on Number Theory (with Takao Yamazaki, Yasuo Ohno, Ming-Lun Hsieh and Yifan Yang), Kesennuma-Ohshima.

- 11. 2015 August 17–21, The 23th Number Theory Summer School "Shimura varieties and applications" (with Yoichi Mieda and Tetsushi Ito), Hotel Apple Land (Aomori).
- 12. Sendai International Conference on Arithmetic Geometry 2016 (with Shinichi Kobayshi and Nobuo Tsuzuki), 2016 January 28–30, Tohoku University, Sendai.
- 13. Workshop on Polylogarithm, MZVs and Mahler measures (with Hidekazu Furusho and Yasuo Ohno), 2016 March 28–29, Tohoku University, Sendai.
- 14. 2016 September 8–13, 3rd Japan-Taiwan jointon Number Theory Conference (with Ming-Lun Hsieh), National Taiwan University.
- 15. 2018 September 2–6, 4th Japan-Taiwan jointon Number Theory Conference (with Ming-Lun Hsieh), Goto Campana Hotel, Goto-Fukue, Japan.