

論文リスト

欧文学術雑誌の論文等

数論幾何一般 :

- [1] S. Mochizuki, The Geometry of the Compactification of the Hurwitz Scheme, *Publ. Res. Inst. Math. Sci.* **31** (1995), pp. 355-441.
- [2] S. Mochizuki, On Semi-Positivity and Filtered Frobenius Crystals, *Publ. Res. Inst. Math. Sci.* **31** (1995), pp. 81-94.
- [3] S. Mochizuki, Correspondences on Hyperbolic Curves, *Journ. Pure Appl. Algebra* **131** (1998), pp. 227-244.
- [4] S. Mochizuki, Extending Families of Curves over Log Regular Schemes, *J. reine angew. Math.* **511** (1999), pp. 43-71.
- [5] S. Mochizuki, Noncritical Belyi Maps, *Math. J. Okayama Univ.* **46** (2004), pp. 105-113.
- [6] S. Mochizuki, Arithmetic Elliptic Curves in General Position, *Math. J. Okayama Univ.* **52** (2010), pp. 1-28.

内在的 Hodge 理論 :

- [1] S. Mochizuki, The Intrinsic Hodge Theory of p -adic Hyperbolic Curves, *Proceedings of the International Congress of Mathematicians*, Vol. II (Berlin, 1998), *Doc. Math.* 1998, Extra Vol. II, pp. 187-196.
- [2] S. Mochizuki, The intrinsic Hodge theory of hyperbolic curves, *Number Theory and Related Topics (Seoul 1998)*, Yonsei Univ. Inst. Math. Sci. (2000), pp. 1-27.
- [3] S. Mochizuki, The intrinsic Hodge theory of p -adic hyperbolic curves, *Taniguchi Conference on Mathematics, Nara '98*, *Adv. Stud. Pure Math.* **31** (2001), Math. Soc. Japan, pp. 211-233.

p 進 Teichmüller 理論 :

- [1] S. Mochizuki, A Theory of Ordinary p -adic Curves, *Publ. Res. Inst. Math. Sci.* **32** (1996), pp. 957-1151.
- [2] S. Mochizuki, *Foundations of p -adic Teichmüller Theory*, *AMS/IP Studies in Advanced Mathematics* **11**, American Mathematical Society/International Press (1999).

- [3] S. Mochizuki, An Introduction to p -adic Teichmüller Theory, *Cohomologies p -adiques et applications arithmétiques I*, *Astérisque* **278** (2002), pp. 1-49.

遠アーベル幾何、圏の幾何 :

- [1] S. Mochizuki, The Profinite Grothendieck Conjecture for Closed Hyperbolic Curves over Number Fields, *J. Math. Sci. Univ. Tokyo* **3** (1996), pp. 571-627.
- [2] S. Mochizuki, A Version of the Grothendieck Conjecture for p -adic Local Fields, *The International Journal of Math.* **8** (1997), pp. 499-506.
- [3] S. Mochizuki, The Local Pro- p Anabelian Geometry of Curves, *Invent. Math.* **138** (1999), pp. 319-423.
- [4] S. Mochizuki, H. Nakamura, A. Tamagawa, The Grothendieck conjecture on the fundamental groups of algebraic curves, *Sugaku Expositions* **14** (2001), pp. 31-53.
- [5] S. Mochizuki, The Absolute Anabelian Geometry of Hyperbolic Curves, *Galois Theory and Modular Forms*, Kluwer Academic Publishers (2004), pp. 77-122.
- [6] S. Mochizuki, The Absolute Anabelian Geometry of Canonical Curves, *Kazuya Kato's fiftieth birthday, Doc. Math. 2003, Extra Vol.*, pp. 609-640.
- [7] S. Mochizuki, Topics Surrounding the Anabelian Geometry of Hyperbolic Curves, *Galois Groups and Fundamental Groups, Mathematical Sciences Research Institute Publications* **41**, Cambridge University Press (2003), pp. 119-165.
- [8] S. Mochizuki, The Geometry of Anabelioids, *Publ. Res. Inst. Math. Sci.* **40** (2004), pp. 819-881.
- [9] S. Mochizuki, Categorical representation of locally noetherian log schemes, *Adv. Math.* **188** (2004), pp. 222-246.
- [10] S. Mochizuki, Categories of log schemes with archimedean structures, *J. Math. Kyoto Univ.* **44** (2004), pp. 891-909.
- [11] S. Mochizuki, Semi-graphs of Anabelioids, *Publ. Res. Inst. Math. Sci.* **42** (2006), pp. 221-322.
- [12] S. Mochizuki, Galois Sections in Absolute Anabelian Geometry, *Nagoya Math. J.* **179** (2005), pp. 17-45.
- [13] S. Mochizuki, A combinatorial version of the Grothendieck conjecture, *Tohoku Math. J.* **59** (2007), pp. 455-479.
- [14] S. Mochizuki, Conformal and quasiconformal categorical representation of hyperbolic Riemann surfaces, *Hiroshima Math. J.* **36** (2006), pp. 405-441.
- [15] S. Mochizuki, Absolute anabelian cuspidalizations of proper hyperbolic curves, *J. Math. Kyoto Univ.* **47** (2007), pp. 451-539.
- [16] S. Mochizuki, The Geometry of Frobenioids I: The General Theory, *Kyushu J. Math.* **62** (2008), pp. 293-400.
- [17] S. Mochizuki, The Geometry of Frobenioids II: Poly-Frobenioids, *Kyushu J. Math.* **62** (2008), pp. 401-460.
- [18] S. Mochizuki, Global Solvably Closed Anabelian Geometry, *Math. J. Okayama Univ.* **48** (2006), pp. 57-71.

- [19] S. Mochizuki, The Étale Theta Function and its Frobenioid-theoretic Manifestations, *Publ. Res. Inst. Math. Sci.* **45** (2009), pp. 227-349.
- [20] S. Mochizuki, A. Tamagawa, The algebraic and anabelian geometry of configuration spaces, *Hokkaido Math. J.* **37** (2008), pp. 75-131.
- [21] S. Mochizuki, Topics in Absolute Anabelian Geometry I: Generalities, *J. Math. Sci. Univ. Tokyo* **19** (2012), pp. 139-242.
- [22] S. Mochizuki, Topics in Absolute Anabelian Geometry II: Decomposition Groups and Endomorphisms, *J. Math. Sci. Univ. Tokyo* **20** (2013), pp. 171-269.
- [23] S. Mochizuki, Topics in Absolute Anabelian Geometry III: Global Reconstruction Algorithms, *J. Math. Sci. Univ. Tokyo* **22** (2015), pp. 939-1156.
- [24] S. Mochizuki, On the Combinatorial Cuspidalization of Hyperbolic Curves, *Osaka J. Math.* **47** (2010), pp. 651-715.
- [25] Y. Hoshi, S. Mochizuki, On the Combinatorial Anabelian Geometry of Nodally Nondegenerate Outer Representations, *Hiroshima Math. J.* **41** (2011), pp. 275-342.
- [26] Y. Hoshi and S. Mochizuki, Topics surrounding the combinatorial anabelian geometry of hyperbolic curves I: Inertia groups and profinite Dehn twists, *Galois-Teichmüller Theory and Arithmetic Geometry*, *Adv. Stud. Pure Math.* **63**, Math. Soc. Japan (2012), pp. 659-811.
- [27] Y. Hoshi, S. Mochizuki, *Topics surrounding the combinatorial anabelian geometry of hyperbolic curves II — tripods and combinatorial cuspidalization*, *Lecture Notes in Mathematics* **2299**, Springer (2022).
- [28] Y. Hoshi, S. Mochizuki, *Topics Surrounding the Combinatorial Anabelian Geometry of Hyperbolic Curves III: Tripods and Tempered Fundamental Groups*, RIMS Preprint **1763** (November 2012), to appear in *Kyoto J. Math.*
- [29] Y. Hoshi, S. Mochizuki, *Topics Surrounding the Combinatorial Anabelian Geometry of Hyperbolic Curves IV: Discreteness and Sections*, RIMS Preprint **1788** (September 2013), to appear in *Nagoya Math. J.*
- [30] S. Mochizuki, Monomorphisms in Categories of Log Schemes, *Kodai Math. J.* **38** (2015), pp. 365-429.
- [31] Y. Hoshi, A. Minamide, S. Mochizuki, Group-theoreticity of Numerical Invariants and Distinguished Subgroups of Configuration Space Groups, *Kodai Math. J.* **45** (2022), pp. 295-348.
- [32] Y. Hoshi, S. Mochizuki, S. Tsujimura, *Combinatorial construction of the absolute Galois group of the field of rational numbers*, RIMS Preprint **1935** (December 2020).
- [33] S. Mochizuki, S. Tsujimura, *Resolution of Nonsingularities, Point-theoreticity, and Metric-admissibility for p -adic Hyperbolic Curves*, RIMS Preprint **1974** (June 2023).

楕円曲線の Hodge-Arakelov 理論 :

- [1] S. Mochizuki, *The Hodge-Arakelov Theory of Elliptic Curves: Global Discretization of Local Hodge Theories*, RIMS Preprint **1255**, **1256** (October 1999).

- [2] S. Mochizuki, *The Scheme-Theoretic Theta Convolution*, RIMS Preprint **1257** (October 1999).
- [3] S. Mochizuki, *Connections and Related Integral Structures on the Universal Extension of an Elliptic Curve*, RIMS Preprint **1279** (May 2000).
- [4] S. Mochizuki, *The Galois-Theoretic Kodaira-Spencer Morphism of an Elliptic Curve*, RIMS Preprint **1287** (July 2000).
- [5] S. Mochizuki, *The Hodge-Arakelov Theory of Elliptic Curves in Positive Characteristic*, RIMS Preprint **1298** (October 2000).
- [6] S. Mochizuki, A Survey of the Hodge-Arakelov Theory of Elliptic Curves I, *Arithmetic Fundamental Groups and Noncommutative Algebra, Proceedings of Symposia in Pure Mathematics* **70**, American Mathematical Society (2002), pp. 533-569.
- [7] S. Mochizuki, A Survey of the Hodge-Arakelov Theory of Elliptic Curves II, *Algebraic Geometry 2000, Azumino, Adv. Stud. Pure Math.* **36**, Math. Soc. Japan (2002), pp. 81-114.
- [8] S. Mochizuki, Anabelian Geometry in the Hodge-Arakelov Theory of Elliptic Curves, *Communications in arithmetic fundamental groups (Kyoto 1999/2001)*, RIMS Kōkyūroku **1267** (2002), pp. 96-111.

宇宙際 Teichmüller 理論 :

- [1] S. Mochizuki, Inter-universal Teichmüller Theory I: Construction of Hodge Theaters, *Publ. Res. Inst. Math. Sci.* **57** (2021), pp. 3-207.
- [2] S. Mochizuki, Inter-universal Teichmüller Theory II: Hodge-Arakelov-theoretic Evaluation, *Publ. Res. Inst. Math. Sci.* **57** (2021), pp. 209-401.
- [3] S. Mochizuki, Inter-universal Teichmüller Theory III: Canonical Splittings of the Log-theta-lattice, *Publ. Res. Inst. Math. Sci.* **57** (2021), pp. 403-626.
- [4] S. Mochizuki, Inter-universal Teichmüller Theory IV: Log-volume Computations and Set-theoretic Foundations, *Publ. Res. Inst. Math. Sci.* **57** (2021), pp. 627-723.
- [5] S. Mochizuki, A Panoramic Overview of Inter-universal Teichmüller Theory, *Algebraic number theory and related topics 2012, RIMS Kōkyūroku Bessatsu B51*, Res. Inst. Math. Sci. (RIMS), Kyoto (2014), pp. 301-345.
- [6] S. Mochizuki, Bogomolov's proof of the geometric version of the Szpiro Conjecture from the point of view of inter-universal Teichmüller theory, *Res. Math. Sci.* **3** (2016), 3:6.
- [7] S. Mochizuki, The Mathematics of Mutually Alien Copies: from Gaussian Integrals to Inter-universal Teichmüller Theory, *Inter-universal Teichmüller Theory Summit 2016, RIMS Kōkyūroku Bessatsu B84*, Res. Inst. Math. Sci. (RIMS), Kyoto (2021), pp. 23-192.
- [8] S. Mochizuki, I. Fesenko, Y. Hoshi, A. Minamide, W. Porowski, Explicit Estimates in Inter-universal Teichmüller Theory, *Kodai Math. J.* **45** (2022), pp. 175-236.
- [9] S. Mochizuki, *On the Essential Logical Structure of Inter-universal Teichmüller Theory in Terms of Logical AND “ \wedge ”/Logical OR “ \vee ” Relations: Report on the Occasion of the Publication of the Four Main Papers on Inter-universal Teichmüller Theory*, RIMS Preprint **1968** (November 2022).

和文雑誌の論文

- [1] 中村 博昭, 玉川 安騎男, 望月新一: 「代数曲線の基本群に関する Grothendieck 予想」, 数学 **50** 巻 2 号 (1998), pp. 113-129.
- [2] 望月新一, 「基本群に映る双曲的代数曲線の構造」, 数理科学 **36** 巻 7 号 (1998), pp. 41-47.
- [3] 望月新一, 「代数曲線に関する Grothendieck 予想 — p 進幾何の視点から」, 第四回津田塾大学整数論シンポジウム (1998), 津田塾大学 数学・計算機科学研究所 研究所報 **17** (1999), pp. 1-31.
- [4] 望月新一, 「連載 ICM 98、部門別報告: 整数論と数論幾何 I」, 数学 **51** 巻第 1 号 (1999 年 1 月), pp. 77-79.
- [5] 望月新一, 「モチーフ — 代数多様体の数論的骨格 —」, 数学セミナー **38** 巻 5 号 (1999), pp. 30-31.
- [6] 望月新一, 「多項式の解の近似がとりもつ数論と幾何の関係 (1), (2), (3), (4)」, 数学セミナー **39** 巻 4, 5, 6, 7 号 (2000), pp. 62-64, pp. 56-58, pp. 61-64, pp. 58-61.

講演のアブストラクト・レクチャーノート

- [1] 望月新一, 実複素多様体のセクション予想と測地線の幾何, 大阪市立大学, 2000 年 9 月.
- [2] 望月新一, p 進 Teichmüller 理論, 北海道大学, 2001 年 1 月.
- [3] 望月新一, Anabelioid の幾何学, 明治大学, 2002 年 3 月.
- [4] 望月新一, Anabelioid の幾何学と Teichmüller 理論, 室蘭, 2002 年 8 月.
- [5] 望月新一, 離散付値環の almost étale extensions (学生用のノート), 京都大学数理解析研究所, 2005 年 10 月.
- [6] 望月新一, 数体と位相曲面に共通する「二次元の群論的幾何」(2012 年 8 月の公開講座).