

教授 (Professor)

A. 研究概要

今年は、ここに書くような成果はありませんでした。

I have no results to write here this year.

B. 発表論文

1. T. Saito “Cotangent bundles and micro-supports in mixed characteristic case”, *Algebra & Number Theory* 16-2 (2022), 335–368.
2. T. Saito “Frobenius-Witt differentials and regularity”, *Algebra & Number Theory* 16-2 (2022), 369–391.
3. T. Saito “Characteristic cycles and the conductor of direct image”, *Journal of the American Mathematical Society*, 34 (2021), 369–410.
4. K. Kato, T. Saito “Coincidence of two Swan conductors of abelian characters”, *Épjournal de Géométrie Algébrique*, epiga:5395, 11 novembre 2019, Volume 3
5. K. Kato, I. Leal, T. Saito “Refined Swan conductors mod  $p$  of one-dimensional Galois representations”, *Nagoya Mathematical Journal* 236 (2019), 134–182.
6. T. Saito “Ramification groups of coverings and valuations”, *Tunisian Journal of Mathematics* Vol. 1, No. 3, 373-426, 2019
7. T. Saito “On the proper push-forward of the characteristic cycle of a constructible sheaf”, *Proceedings of Symposia in Pure Mathematics* Volume: 97; 2018; *Algebraic Geometry: Salt Lake City 2015, Part 2*, 485-494

C. 口頭発表

1. Upper ramification groups of local fields with imperfect residue fields, May 30, 31, 2022, Franco-Asian Summer School on Arithmetic Geometry, Centre International de Rencontres Mathématiques (CIRM), Luminy, (フランス)
2. 余接空間と局所体の分岐群 2022年12/23 九

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3. Wild ramification and the cotangent bundle in mixed characteristic. Eighth Pacific Rim Conference, 7 August 2020, Online. (アメリカ) Colloquium at University of Minnesota, Feb 18 2021, Online. (アメリカ)
4. Graded Quotients of Ramification Groups of a Local Field with Imperfect Residue Field, January 7, 2020, International conference on arithmetic geometry 2020, TIFR, Mumbai. (インド) mercredi 22 janv. 2020, IHES. (フランス)
5. Etale Cohomology and the Characteristic Cycle, September 6, 2019, BICMR, Pekin University. (中国)
6. Ramification groups of a local field (with Ahmed Abbes and Kazuya Kato), September 5, 2019 CAS Beijing. (中国)
7. CC, Wild Ramification and Irregular Singularities, Sep 25, 2019 at IMPAN in Warsaw, Poland. (ポーランド)
8. Characteristic cycle of a constructible sheaf, Arithmetic Geometry in Carthage, Summer School, Tunisian Academy Beit al-Hikma, Carthage, Tunisia Thursday, June 20-21, 2019. (チュニジア)
9. Characteristic cycle of constructible sheaves and restriction to curves. "Arithmétique et géométrie algébrique", une conférence en l'honneur d'Ofer Gabber, à l'occasion de son soixantième anniversaire, à l'IHÉS, Vendredi 15 juin, 2018. (フランス) Cohomology of algebraic varieties CIRM October 19th, 2018. (フランス)
10. Characteristic cycle of an  $\ell$ -adic sheaf, 第34回京都賞記念ワークショップ「基礎科学部門」2018年11月12日(月)京大数理研 Arithmetic and Algebraic Geometry 2019 - in honour of Professor Tomohide Terasoma's 60th birthday - January 25 (Fri), 2019 東大数理, CAS Beijing, September 4, 2019 (中国)

E. 修士・博士論文

1. (修士) 上 荳 隆 宏 (UEORO Takahiro):  
Chabauty-Coleman 法の拡張による, 超楕  
円曲線の  $x$  座標が有理数になる  $K$  有理点の  
計算

F. 対外研究サービス

1. Journal of Algebraic Geometry, エディター
2. Documenta Mathematica, エディター
3. Japanese Journal of Mathematics, エディ  
ター

G. 受賞

日本数学会出版賞:『数学の現在』共編. 2019 年  
3月18日