# Curriculum Vitae – Enlin YANG

- Enlin YANG July 27, 1987 (M) Place of birth: Hunan Province, China
- Email: yangenlin@cnu.edu.cn
- Homepage: https://yelmath.github.io/
- Current Address: School of Mathematical Sciences, Capital Normal University, No.105 XiSanHuan North Road, Beijing, 100048, P.R. China.
- Research Interests: Number theory and algebraic geometry, in particular geometric ramification theory.

# **Employment**

- 2025.10 present, –, Capital Normal University.
- 2018.12 2025.10, Assistant Professor, Peking University.
- 2017.10 2018.09, Postdoc, Host: Prof.Dr.Denis-Charles Cisinski (Universität Regensburg).
- 2016.09 2017.09, Humboldt Research Fellowship, Host: Prof.Dr.Moritz Kerz (Universität Regensburg).
- 2015.09 2016.08, Humboldt Research Fellowship, Host: Prof.Dr.Hélène Esnault (Freie Universität Berlin).

#### Education

- 2010.09 2015.01, Ph.D, Mathematics, Tsinghua University, advisor: Professor Linsheng Yin.
- 2012.10 2014.08, Research student, University of Tokyo, mentor: Professor Takeshi Saito.
- 2006.08 2010.07, Bachelor of Science, Tsinghua University.

#### Grants

- 2026.01 2028.12, NSFC young scientists fund (Class B, 12522101), Geometric ramification theory.
- 2023–2026, NSFC general program 12271006, Quadratic invariants in geometric ramification.
- 2022–2026, National Key R&D Program 2021YFA1001400, L-functions and characteristic classes of varieties.
- 2020–2022, NSFC young scientists fund (Class C, 11901008), On the ramified twist formula for epsilon factors of  $\ell$ -adic sheaves.

# **Preprints**

- 1. Jiangnan Xiong and Enlin Yang, Characteristic cycles and non-acyclicity classes for constructible etale sheaves, https://yelmath.github.io/MF, 2024.
- 2. Fangzhou Jin and Enlin Yang, The quadratic Artin conductor of a motivic spectrum, arXiv:2211.10985, 2022.
- 3. Fangzhou Jin, Peng Sun and **Enlin Yang**, The pro-Chern-Schwarz-MacPherson class in Borel-Moore motivic homology, arXiv:2208.11989, 2022.

### **Publications**

- 1. Enlin Yang\* and Yigeng Zhao, Cohomological Milnor formula and Saito's conjecture on characteristic classes, Inventiones Mathematicae 240 (2025): 123-191.
- 2. Fangzhou Jin and Enlin Yang\*, Künneth formulas for motives and additivity of traces, Advances in Mathematics 376 (2021) 107446, 83 pages.
- 3. Enlin Yang\* and Yigeng Zhao, On the relative twist formula of ℓ-adic sheaves, Acta. Math. Sin.-English Ser. 37 (2021): 73-94.
- 4. Naoya Umezaki, **Enlin Yang\*** and Yigeng Zhao, Characteristic class and  $\varepsilon$ -factor of an etale sheaf, Trans. Amer. Math. Soc. 373 (2020): 6887-6927.
- 5. Haoyu Hu and Enlin Yang\*, Relative singular support and the semi-continuity of characteristic cycles for etale sheaves, Selecta Mathematica, 24(3), 2018: 2235-2273.
- 6. Haoyu Hu\* and Enlin Yang, Semi-continuity for total dimension divisors of etale sheaves, International Journal of Mathematics, Volume 28, Issue 01, 2017.
- 7. Enlin Yang\*, Logarithmic version of the Milnor formula, Asian Journal of Mathematics, Volume 21, No. 3, 2017: 571-590.
- 8. Enlin Yang\*, Logarithmic version of the Milnor formula (research announcement), RIMS Kokyuroku Bessatsu, B64 (2017), 195-199.
- 9. **Enlin Yang\*** and Linsheng Yin, Derivatives of Siegel modular forms and modular connections, Manuscripta Mathematica, Volume 146, Issue 1, 2015: 65-84.
- 10. Li Sun and Enlin Yang\*, On the  $GL(r) \times GL(r+s) \times GL(s)$  convolution, Journal of Number Theory 134, 2014: 130-141.

# **Students**

- Doctoral students:
  - 1. Jiangnan Xiong, 2024-present (Now he is a student of Ruochuan Liu)
  - 2. Xiangyu Pan, 2023-present
  - 3. Kaicheng Bao, 2023-present
- Master students:
  - 1. Yihao Ding, 2022-present
  - 2. Xue Qin, 2018 2022
- Undergraduate thesis:
  - 1. Xuande Liu (2021)
  - 2. Hao Chai (2021)
  - 3. Yueshi Hou (2022)
  - 4. Xiaolong Hu (2023)
  - 5. Wenzhuo Wang (2023)
  - 6. Jiangnan Xiong (2024)
  - 7. Zhenpeng Li (2024)
  - 8. Zhongjin Yan (2024)

# **Teaching**

- 1. Spring 2019, Graduate course: Homological algebra
- 2. Autumn 2019, Graduate course: ∞-category
- 3. Spring 2020, Undergraduate Course: Seminar on algebra (cyclic homology)
- 4. Autumn 2020, Graduate course: ∞-category
- 5. Spring 2021, Undergraduate Course: Groups and representations.
- 6. Autumn 2021, Undergraduate Course: Advanced Mathematics (B)(1)
- 7. Spring 2022, Undergraduate Course: Algebra II (Honor)
- 8. Spring 2023, Undergraduate Course: Algebra II (Honor)
- 9. Autumn 2023, Graduate course: Topic on Number Theory (etale cohomology theory)
- 10. Spring 2024, Undergraduate Course: Algebra II(Honor)
- 11. Spring 2025, Undergraduate Course: Algebra II(Honor)

# Service

• From 2019 to 2023, I served as the head teacher of Class 4, Grade 2019.

# Reviewer for journals

I have been a reviewer for the following journals:

- 1. Advances in Mathematics
- 2. Astérisque
- 3. Compositio Mathematica
- 4. Journal of Algebraic Geometry
- 5. International Journal of Number Theory
- 6. Proceedings of the London Mathematical Society
- 7. Tohoku Mathematical Journal
- 8. Tunisian Journal of Mathematics

# Academic activities

From 2019 to 2023, I have invited 36 researchers to visit Peking University. In addition, I also participated in the organization of 3 short courses, 5 workshops, and 1 conference. For further details, please visit my homepage.

- 1. December 2-3, 2023, Youth Scholars Forum on Number Theory.
- 2. November 24-26, 2023, Workshop on six-functor formalism and characteristic class (I).
- 3. 2023, each Friday, Seminar on etale cohomology theory.
- 4. June to July 2023, Mini-course: Purity of Brauer groups: application of perfectoids.
- 5. May 20-21, 2023, Workshop on vanishing cycles and Swan conductors.
- 6. March 2023, Mini-course: Introduction to log geometry.
- 7. February 9-10, 2022, Online workshop on the ramification theory for varieties over a local field II.
- 8. December 30-31, 2022, Online workshop on the ramification theory for varieties over a local field I.
- 9. July 2022, Mini-course: Singular support, characteristic cycle and wild ramification of etale sheaves.
- 10. January 20-24, 2022, Online workshop on local A<sup>1</sup>-Brouwer degree.
- 11. Long-term seminar: Seminar on Algebraic Geometry and Ramification (online).
- 12. 2019, Seminar on p-adic periods and derived de Rham cohomology (organized with professor Ruochuan Liu).

#### **Invited Talks**

- 1. 2024.02.26 2024.03.01, Conference: Nearby Cycles and Derived Geometry, Universität Regensburg, talk: Cohomological Milnor formula for constructible etale sheaves.
- 2. 2024.01.29, Central South University, talk: Characteristic classes in etale cohomology.
- 3. 2023.11.15, Morningside Center of Mathematics, talk: Cohomological Milnor formula.
- 4. 2023.11.06 2023.11.10, Conference: Sino-Russian Interdisciplinary Mathematical Conference, talk: Cohomological Milnor formula for etale sheaves.
- 5. 2023.06.22, Capital Normal University, talk: Cohomological conductor formula.
- 6. 2022.12.19, Tsinghua University, talk: Quadratic conductor formulas for motivic spectra.
- 7. 2022.12.03, Workshop on Algebra and Arithmetic Geometry, Hunan University, talk: Cohomological conductor formula for constructible sheaves.
- 8. 2022.11.25, Nanjing University, talk: Conductor formulas for constructible etale sheaves.
- 9. 2022.09.23, Sun Yat-sen University, talk: Cohomological Milnor formula.
- 10. 2022.10.15, Workshop on Geometry, Chinese Academy of Sciences, talk: Conductor formula and non-acyclicity classes for constructible etale sheaves.
- 11. 2021.07.21, Nanjing University, talk: Stable infinity category and additivity of trace.
- 12. 2021.10.13, Southeast University, talk: Stable infinity category and additivity of trace.
- 13. 2021.02.23, Nanjing Conference on Arithmetic Geometry, talk: localized characteristic classes for constructible etale sheaves.
- 14. 2020.10.24 2020.10.25, SUSTech Online Number Theory and Arithmetic Geometry Conference, talk: Characteristic classes of constructible motives.
- 15. 2020.10.29, Renmin University of China, talk: Localized Characteristic classes for constructible etale sheaves.
- 16. 2019.10.24, China University of Mining and Technology, talk: Characteristic class and the epsilon factor of an etale sheaf.
- 17. 2019.09.23 2019.09.27, Warsaw, Conference: Wild Ramification and Irregular Singularities, talk: On the semi-continuity of characteristic cycles for etale sheaves.
- 18. 2019.09.02, Peking University, PKU-KUL Joint Algebraic Geometry.
- 19. 2019.08.25 2019.08.30, Daejeon, Korea, The 8th East Asian Number Theory Conference, talk: Twist formula of epsilon factors of constructible etale sheaves.
- 20. 2019.06.17 2019.06.21, Carthage, Tunisia, Conference: Arithmetic Geometry in Carthage, talk: Twist formula of epsilon factors of constructible étale sheaves.
- 21. 2019.05.06 2019.05.12, Anhui Hefei, Conference: Young Mathematicians Academic Forum, talk: On the total characteristic class.
- 22. 2019.01.03, Tsinghua University, talk: Characteristic class and the epsilon factor of an etale sheaf.