Curriculum Vitae – Enlin YANG

- Enlin YANG   July 27, 1987 (M)   Place of birth: Hunan Province, China

- **Email**: yangenlin@math.pku.edu.cn

- **Homepage**: https://www.math.pku.edu.cn/teachers/yangenlin/ely.htm

- **Current Address**: School of Mathematical Sciences, Peking University, No.5 Yiheyuan Road, Haidian District, Beijing, 100871, P.R. China.

- **Research Interests**: Number theory and algebraic geometry, in particular geometric ramification theory.

Employment

- 2018.12 – present, 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

- 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 11901008, On the ramified twist formula for epsilon factors of ℓ-adic sheaves.

Preprints

1. Jiangnan Xiong and **Enlin Yang**, *Characteristic cycles and non-acyclicity classes for constructible etale sheaves*, https://www.math.pku.edu.cn/teachers/yangenlin/MF, 2023.

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 ε-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 $\mathrm{GL}(r) \times \mathrm{GL}(r+s) \times \mathrm{GL}(s)$ convolution*, *Journal of Number Theory* 134, 2014: 130-141.

Students

- Doctoral students:

  1. Jiangnan Xiong, 2024–present
  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)

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 $\mathbb{A}^1$-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 tale 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.