

# Weizhe Zheng

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## Personal Information

Born in August 1984 in Beijing. Married.

## Education

- 1999–2003 Bachelor of Science, Tsinghua University, Beijing.  
2004–2005 Master, *très bien*, Université Paris XI.  
2005–2008 Doctorat, *très honorable*, Université Paris XI.  
Thesis defended in December 2007. Advisor: Luc Illusie.

## Positions

- 2008–2012 Ritt Assistant Professor, Columbia University, New York.  
2012– Morningside Center of Mathematics,  
Academy of Mathematics and Systems Science,  
Chinese Academy of Sciences, Beijing.

## Research Interests

algebraic geometry and arithmetic geometry

## Publications

- (with Jin Yang) On a theorem of Chowla.  
*J. Number Theory* **106** (2004), no. 1, pp. 50–55.
- Sur la cohomologie des faisceaux  $l$ -adiques entiers sur les corps locaux.  
*Bull. Soc. Math. France* **136** (2008), no. 3, pp. 465–503.
- Sur l’indépendance de  $l$  en cohomologie  $l$ -adique sur les corps locaux.  
*Ann. Sci. Éc. Norm. Supér. (4)* **42** (2009), no. 2, pp. 291–334.
- (with Luc Illusie) Odds and ends on finite group actions and traces.  
*Int. Math. Res. Not. IMRN* **2013**, no. 1, pp. 1–62.  
Errata and Addenda, *Int. Math. Res. Not. IMRN* **2014**, no. 9, pp. 2572–2576.

- On hyper base change.  
Exposé XII<sub>B</sub> in *Travaux de Gabber sur l'uniformisation locale et la cohomologie étale des schémas quasi-excellents. Séminaire à l'École polytechnique 2006–2008*, dirigé par Luc Illusie, Yves Laszlo, Fabrice Orgogozo.  
*Astérisque* **363–364** (2014), pp. 251–260.
- Six operations and Lefschetz–Verdier formula for Deligne–Mumford stacks.  
*Sci. China Math.* **58** (2015), no. 3 (special issue for the fifth Algebraic Geometry in East Asia conference), pp. 565–632.
- (with Luc Illusie) Quotient stacks and equivariant étale cohomology algebras: Quillen’s theory revisited.  
*J. Algebraic Geom.* **25** (2016), no. 2, pp. 289–400.
- (with Shenghao Sun) Parity and symmetry in intersection and ordinary cohomology.  
*Algebra Number Theory* **10** (2016), no. 2, pp. 235–307.
- Gluing pseudo functors via  $n$ -fold categories.  
*J. Homotopy Relat. Struct.* **12** (2017), no. 1, pp. 189–271.
- Künneth formula for nearby cycles.  
Appendix to Luc Illusie, “Around the Thom–Sebastiani Theorem”.  
*Manuscripta Math.* **152** (2017), no. 1–2, pp. 119–123.
- (with Qing Lu and Zhiyong Zheng) On the distribution of Jacobi sums.  
*J. Reine Angew. Math.* **741** (2018), pp. 67–86.
- Companions on Artin stacks.  
*Math. Z.* **292** (2019), no. 1–2, pp. 57–81.
- (with Qing Lu) Duality and nearby cycles over general bases.  
*Duke Math. J.* **168** (2019), no. 16, pp. 3135–3213.
- (with Qing Lu) Compatible systems and ramification.  
*Compos. Math.* **155** (2019), no. 12, pp. 2334–2353.
- (with Qing Lu) On the distribution of multivariate Jacobi sums.  
*Finite Fields Appl.* **73** (2021), 101840, pp. 1–7.
- (with Qing Lu) Categorical traces and a relative Lefschetz–Verdier formula.  
*Forum Math. Sigma* **10** (2022), e10, pp. 1–24.