

# Chang Lv

Associate Professor

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## Education

- 2010–2015 **Ph.D.**, *Academy of Mathematics and Systems Science, CAS, Beijing, China*,  
 • Degree major: Applied Mathematics, Adviser: Prof. Zhexion Wan and Yingpu Deng.  
 • Thesis: Primality tests, ring class fields and diophantine equations, 2015
- 2006–2010 **B.S.**, *Nankai University, Tianjin, China*,  
 • Degree major: Mathematics and Applied Mathematics.

## Area of research

I am interested in **algebraic number theory** and **arithmetic geometry**.

## Fundings

- 01/2018-12/2020 Existence of integral points on quadratic norm form equations over global fields and applications, NNSF of China (Grants No. 11701552)

## Publications

- [DL15] Yingpu Deng and Chang Lv, *Primality test for numbers of the form  $Ap^n + w_n$* , Journal of Discrete Algorithms **33** (2015), 81–92.
- [LD15] Chang Lv and Yingpu Deng, *On orders in number fields: Picard groups, ring class fields and applications*, Science China Mathematics **58** (2015), no. 8, 1627–1638.
- [LL17] Chang Lv and Jianing Li, *On the non-existence of certain classes of generalized bent functions*, IEEE Transactions on Information Theory **63** (2017), no. 1, 738–746.
- [LSD18] Chang Lv, Junchao Shentu, and Yingpu Deng, *On the integral representation of binary quadratic forms and the Artin condition*, Tokyo J. Math. **41** (2018), no. 2, 371–384. MR 3908800
- [Lv17] Chang Lv, *On the non-existence of certain classes of perfect  $p$ -ary sequences and perfect almost  $p$ -ary sequences*, IEEE Transactions on Information Theory **63** (2017), no. 8, 5350–5359.
- [Lv18] ———, *Nonexistence of generalized bent functions and the quadratic norm form equations*, arXiv preprint arXiv:1804.01292 (2018), 1–13.
- [Lv20a] ———, *Diophantine equations defined by binary quadratic forms over rational function fields*, Acta Arith. **196** (2020), no. 1, 35–51. MR 4129970

- [Lv20b] ———, *A note on the Brauer group and the Brauer-Manin set of a product*, Bull. Lond. Math. Soc. **52** (2020), no. 5, 932–941. MR 4171413
- [Lv21] ———, *The second descent obstruction and gerbes*, arXiv preprint arXiv:2009.06915v2 (2021), 1–31.
- [Lv22] ———, *On commutative diagrams consisting of low term exact sequences*, arXiv preprint arXiv:2112.14386v2 (2022), 1–9.
- [LW23] Chang Lv and Han Wu, *The Brauer-Manin obstruction on algebraic stacks*, arXiv preprint arXiv:2306.14426v2 (2023), 1–16.
- [WL22] Han Wu and Chang Lv, *Genus one half stacky curves violating the local-global principle*, arXiv preprint arXiv:2203.05810 (2022), 1–5.
- [YL18] Hairong Yi and Chang Lv, *On ring class fields of number rings*, arXiv preprint arXiv:1810.04810 (2018), 1–17.

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