Chang Lv

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Education

2010–2015 **Ph.D.**, *Academy of Mathematics and Systems Science, CAS*, Beijing, China,
● Degree major: Applied Mathematics, Adviser: Prof. Zhexian 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

[1] Yingpu Deng and Chang Lv, *Primality test for numbers of the form $Ap^n + w_n$*, Journal of Discrete Algorithms **33** (2015), 81–92.

[2] 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.

[3] ———, *Nonexistence of generalized bent functions and the quadratic norm form equations*, arXiv preprint arXiv:1804.01292 (2018), 1–13.

[4] ———, *Diophantine equations defined by binary quadratic forms over rational function fields*, Acta Arith. **196** (2020), no. 1, 35–51. MR 4129970

[5] ———, *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

[6] ———, *The second descent obstruction and gerbes*, arXiv preprint arXiv:2009.06915 (2021), 1–31.

[7] 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.

[8] 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.

[9] 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

[10] Hairong Yi and Chang Lv, *On ring class fields of number rings*, arXiv preprint arXiv:1810.04810 (2018), 1–17.