# Runbo Li

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## Education

2023 – now **International Curriculum Center (ICC), The High School Affiliated to Renmin University of China**, Beijing, China
**High School Student**

2020 – 2023 **The High School Affiliated to Renmin University of China**, Beijing, China
**Secondary School Student**

## Publications

1 **Runbo Li**. A remark on the distribution of $\sqrt{p}$ modulo one involving primes of special type. *Hiroshima Mathematical Journal*. (to appear).

## Preprints

29 **Runbo Li**. Bombieri–Vinogradov Theorem in shorter intervals. *Preprints*. *preprints202511.0089.v1*.

28 **Runbo Li**. Primes in almost all short intervals II. *Cambridge Open Engage*. *10.33774/coe-2025-jrnjl*.

27 **Runbo Li**. On Chen's theorem, Goldbach's conjecture and almost prime twins III. *Cambridge Open Engage*. *10.33774/coe-2025-5kl50*.

26 **Runbo Li**. An average Brun–Titchmarsh theorem and shifted primes with a large prime factor. *arXiv*. *arXiv:2508:18285v3*.

25 **Runbo Li**. On the exceptional set in the $abc$ conjecture. *arXiv*. *arXiv:2507:02885v1*.

24 **Runbo Li**. On the largest prime factor of integers in short intervals II. *Cambridge Open Engage*. *10.33774/coe-2025-xnbjq-v2*.

23 **Runbo Li**. On Chen's theorem, Goldbach's conjecture and almost prime twins II. *arXiv*. *arXiv:2405.05727v4*.

22 **Runbo Li**. On the largest prime factor of quadratic polynomials. *arXiv*. *arXiv:2406.07575v2*.

21 **Runbo Li**. A remark on the distribution of $\sqrt{p}$ modulo one involving primes of special type II. *arXiv*. *arXiv:2401.01351v3*.

20 **Runbo Li**. Largest square divisors of shifted primes. *arXiv*. *arXiv:2505.23779v2*.

19 **Runbo Li**. On the generalized Dirichlet divisor problem. *Preprints*. *preprints202505.1432.v3*.

18 **Runbo Li**. On almost primes in Piatetski–Shapiro sequences. *arXiv*. *arXiv:2505.09634v1*.

17 **Runbo Li**. Primes in arithmetic progressions to smooth moduli: A minorant version. *arXiv*. *arXiv:2505.09629v2*.

16 **Runbo Li**. On prime-producing sieves and distribution of $\alpha p - \beta$ mod $1$. *arXiv*. *arXiv:2504.13195v3*.

15 **Runbo Li**. A note on variants of Buchstab's identity. *arXiv*. *arXiv:2504.07974v1*.

14 **Runbo Li**. The number of primes in short intervals and numerical calculations for Harman's sieve. *arXiv*. *arXiv:2308.04458v8*.

13 **Runbo Li**. On the Piatetski–Shapiro prime number theorem II. *Preprints*. *preprints202504.1165.v2*.

12 **Runbo Li**. On the Piatetski–Shapiro prime number theorem. *Preprints*. *preprints202504.1190.v1*.

11 **Runbo Li**. On the largest prime factor of integers in short interval. *Preprints*. *preprints202504.1212.v2*.

10 **Runbo Li**. Primes in almost all short intervals. *arXiv*. *arXiv:2407.05651v6*.

9 **Runbo Li**. On the primitive divisors of quadratic polynomials. *arXiv*. *arXiv:2406.07575v1*.

8 **Runbo Li**. On Chen's theorem, Goldbach's conjecture and almost prime twins. *arXiv*. *arXiv:2405.05727v3*.

7 **Runbo Li**. On a conjecture involving twin practical numbers. *Preprints*. *preprints202504.1211.v1*.

6 **Runbo Li**. A remark on large even integer of the form $p + P_3$. *arXiv*. *arXiv:2403.09691v1*.

5 **Runbo Li**. Hybrid estimation of exponential sums, exceptional characters and primes in short intervals. *arXiv*. *arXiv:2401.11139v3*.

4 **Runbo Li**. Remarks on additive representations of natural numbers. *arXiv*. *arXiv:2309.03218v7*.

3 **Runbo Li**. A remark on the distribution of $\sqrt{p}$ modulo one involving primes of special type. *arXiv*. *arXiv:2401.01351v1*.

2 **Runbo Li**. On the upper and lower bound orders of almost prime triples. *arXiv*. *arXiv:2401.01348v1*.

1 **Runbo Li**. On some problems of primes with the floor function. *arXiv*. *arXiv:2308.16301v1*.

## Other works

2 **Runbo Li**. Primes in almost all short intervals III. *preprint*.

1 **Runbo Li**. On the weighted AM-GM inequality and refined inequalities between arithmetic functions. *preprint*.

## Talks

3 Primes in short intervals. *Online Meeting Invited Speaker*. Online. 2025.

2 On the Goldbach's conjecture. *2025 "Haidian $\pi$ Mathematics Festival" Closing Ceremony Research Presentation*. The High School Affiliated to Beijing Institute of Technology. 2025.

1 On Chen's theorem, Goldbach's conjecture and applications of sieve methods. *S.-T. Yau High School Science Award (Mathematics) Global Final Research Report*. Tsinghua University. 2024.