

# 刘纪彩 博士 副教授

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## 教育背景

- 学士 山东大学 2004/9–2008/7
- 硕士 华东师范大学 2008/9–2011/6
- 博士 华东师范大学 2014/9–2017/6

## 工作经历

- 2017/6–2019/11 讲师 温州大学数理学院
- 2019/12–2020/8 副教授 温州大学数理学院
- 2020/9–现在 副教授 硕士生导师 温州大学数理学院

## 讲授课程

- 高等代数
- 高等数学

## 研究方向

- 数论
- 组合数学
- 特殊函数论

## 学术项目

- 带  $p$ -adic Gamma 函数的组合同余式研究, 国家自然科学基金青年项目 (11801417), 22万元, 主持, 2019/1–2021/12

## —— 学术论文(SCI收录)

1. **Ji-Cai Liu\***, He-Xia Ni, On two supercongruences involving Almkvist–Zudilin sequences, Czechoslovak Math. J., to appear.
2. Long Li, **Ji-Cai Liu\***, On two supercongruences of double binomial sums, Period. Math. Hungar., online, doi: 10.1007/s10998-020-00377-4.
3. **Ji-Cai Liu**, Supercongruences arising from transformations of hypergeometric series, J. Math. Anal. Appl. 497 (2021), Art. 124915.
4. **Ji-Cai Liu**, A supercongruence relation among Apéry-like numbers, Colloq. Math. 163 (2021), 333–340.
5. **Ji-Cai Liu\***, Zhong-Yu Huang, A truncated identity of Euler and related  $q$ -congruences, Bull. Aust. Math. Soc. 102 (2020), 353–359.
6. **Ji-Cai Liu**, On two congruences involving Franel numbers, Rev. R. Acad. Cienc. Exactas Fís. Nat. Ser. A Mat. 114 (2020), Art. 201.
7. **Ji-Cai Liu**, On a congruence involving  $q$ -Catalan numbers, C. R. Math. Acad. Sci. Paris 358 (2020), 211–215.
8. **Ji-Cai Liu**, Proof of Sun’s conjectural supercongruence involving Catalan numbers, Electron. Res. Arch. 28 (2020), 1023–1030.
9. **Ji-Cai Liu**, Some supercongruences arising from symbolic summation, J. Math. Anal. Appl. 488 (2020), Art. 124062.
10. **Ji-Cai Liu**, On a sum of Apéry-like numbers arising from spectral zeta functions, Colloq. Math. 160 (2020), 1–6.
11. **Ji-Cai Liu**, Supercongruences arising from hypergeometric series identities, Acta Arith. 193 (2020), 175–182.
12. **Ji-Cai Liu\***, Fedor Petrov, Congruences on sums of  $q$ -binomial coefficients, Adv. in Appl. Math. 116 (2020), Art. 102003.
13. Victor J.W. Guo, **Ji-Cai Liu\***, Some congruences related to a congruence of Van Hamme, Integral Transforms Spec. Funct. 31 (2020), 221–231.
14. Ke-Yu Lin, **Ji-Cai Liu\***, Congruences for the truncated Appell series  $F_3$  and  $F_4$ , Integral Transforms Spec. Funct. 31 (2020), 10–17.
15. **Ji-Cai Liu**, Supercongruences for truncated Appell series, Colloq. Math. 158 (2019), 255–263.
16. **Ji-Cai Liu\***, Chen Wang, Congruences for the  $(p - 1)$ th Apéry number, Bull. Aust. Math. Soc. 99 (2019), 362–368.

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\*代表通讯作者

17. **Ji-Cai Liu**, Semi-automated proof of supercongruences on partial sums of hypergeometric series, *J. Symbolic Comput.* 93 (2019), 221–229.
18. **Ji-Cai Liu**, On Van Hamme’s (A.2) and (H.2) supercongruences, *J. Math. Anal. Appl.* 471 (2019), 613–622.
19. **Ji-Cai Liu**, Congruences on sums of super Catalan numbers, *Results Math.* 73 (2018), Art. 140.
20. Victor J.W. Guo, **Ji-Cai Liu\***,  $q$ -Analogues of two Ramanujan-type formulas for  $1/\pi$ , *J. Difference Equ. Appl.* 24 (2018), 1368–1373.
21. **Ji-Cai Liu**, A generalized supercongruence of Kimoto and Wakayama, *J. Math. Anal. Appl.* 467 (2018), 15–25.
22. **Ji-Cai Liu**, Supercongruences involving  $p$ -adic Gamma functions, *Bull. Aust. Math. Soc.* 98 (2018), 27–37.
23. **Ji-Cai Liu\***, Long Li, Su-Dan Wang, Some congruences on Delannoy numbers and Schröder numbers, *Int. J. Number Theory* 14 (2018), 2035–2041.
24. **Ji-Cai Liu**, Some supercongruences on truncated  ${}_3F_2$  hypergeometric series, *J. Difference Equ. Appl.* 24 (2018), 438–451.
25. **Ji-Cai Liu**, Some finite generalizations of Gauss’s square exponent identity, *Rocky Mountain J. Math.* 47 (2017), 2723–2730.
26. **Ji-Cai Liu\***, Jichun Liu, Some Extensions of the Prabhu-Srivastava Theorem Involving the  $(p, q)$ -Gamma Function, *Filomat* 31 (2017), 4507–4513.
27. **Ji-Cai Liu**, A  $p$ -adic supercongruence for truncated hypergeometric series  ${}_7F_6$ , *Results Math.* 72 (2017), 2057–2066.
28. **Ji-Cai Liu**, Proof of some divisibility results on sums involving binomial coefficients, *J. Number Theory* 180 (2017), 566–572.
29. **Ji-Cai Liu**, Some finite generalizations of Euler’s pentagonal number theorem, *Czechoslovak Math. J.* 142 (2017), 525–531.
30. **Ji-Cai Liu**, Congruences for truncated hypergeometric series  ${}_2F_1$ , *Bull. Aust. Math. Soc.* 96 (2017), 14–23.
31. **Ji-Cai Liu\***, Wilberd van der Kallen, Proof of Sun’s conjectures on Schröder-like numbers, *Int. J. Number Theory* 13 (2017), 1627–1638.
32. Victor J.W. Guo\*, **Ji-Cai Liu**, Proof of a congruence on sums of powers of  $q$ -binomial coefficients, *Int. J. Number Theory* 13 (2017), 1571–1577.
33. **Ji-Cai Liu**, Some congruences for Schröder type polynomials, *Colloq. Math.* 146 (2017), 187–195.

34. **Ji-Cai Liu**, On two conjectural supercongruences of Apagodu and Zeilberger, J. Difference Equ. Appl. 22 (2016), 1791–1799.
35. **Ji-Cai Liu**, A supercongruence involving Delannoy numbers and Schröder numbers, J. Number Theory 168 (2016), 117–127.
36. Victor J.W. Guo\*, **Ji-Cai Liu**, Proof of some conjectures of Z.-W. Sun on the divisibility of certain double sums, Int. J. Number Theory 12 (2016), 615–623.
37. Victor J.W. Guo\*, **Ji-Cai Liu**, Proof of a conjecture of Z.-W. Sun on the divisibility of a triple sum, J. Number Theory 156 (2015), 154–160.

## —— 指导硕士生

- 2020级 姜雪婷 赵珊珊 赵媛媛