Xi Cen

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Personal Profile

I specialize in asymptotics and special functions, working to foster their theoretical modernization through interdisciplinary research synthesis.

Education

2025 - Now Ph.D. student in Pure Math - Donghua University, Shanghai

Advisor: Liangjian Hu & Min-Jie Luo

2022 - 2024 Master student in Pure Math - Donghua University, Shanghai

Advisor: Min-Jie Luo

2017 - 2021 B.Eng. in Process Equipment and Control Engineering - Northeastern University, Shenyang

Contributed Talks

May 2025 "Asymptotics of bivariate hypergeometric functions"

Haihe Postdoctoral Forum on Mathematics, Statistics & Interdisciplinary Sciences,

Pure Mathematics

Nankai University, Tianjin

Nov 2024 "Asymptotics of Saran's hypergeometric function F_K "

2024 Colloquium on Number Theory & Special Functions

Donghua University, Shanghai

Sept 2024 "Asymptotics of hypergeometric functions"

2024 Doctoral Academic Forum,

Nonlinear Functional Analysis and Applications

Central China Normal University, Wuhan

Awards and Honors

2024 National Scholarship for Postgraduates, China

Outstanding Student, Donghua University

Peng-Cheng Hang

Remarkable Activities

■ I co-organised the colloquium *Number Theory & Special Functions*, which was held at Donghua University on Nov. 16th, 2024.

Publications

- **1.** P.-C. Hang, L. Hu, M.-J. Luo. Note on the *a*-points of the Riemann zeta function. To appear in *Period. Math. Hung.*, (2025)
- **2.** P.-C. Hang, M.-J. Luo. Asymptotics of Saran's hypergeometric function F_K . *J. Math. Anal. Appl.* **541** (2025), no. 2, Article 128707, 19 pp. **MR4781072**
- 3. P.-C. Hang, M.-J. Luo. Asymptotics of the Humbert function Ψ_1 for two large arguments. *Symmetry Integrability Geom. Methods Appl.* **20** (2024), Article 074, 13 pp. **MR4843363**

Preprints

- 1. P.-C. Hang, L. Hu. Full asymptotic expansions of the Humbert function Φ_1 . arXiv:2504.09280
- **2.** P.-C. Hang, M. Henkel, M.-J. Luo. Asymptotics of the Humbert functions Ψ_1 and Ψ_2 . *J. Approx. Theory* (under review), arXiv:2501.07281v2
- 3. P.-C. Hang, L. Hu, M.-J. Luo. Complete asymptotic expansions of the Humbert function Ψ_1 for two large arguments. arXiv:2410.21985v3
- 4. P.-C. Hang. Matrix analogues of some asymptotic methods for Laplace integrals. arXiv:2404.15573v2

References

Name	Liangjian Hu	Name	Alexey Kuznetsov
Affiliation	Donghua University	Affiliation	York University
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Name Affiliation	Gergő Nemes Harbin Institute of Technology	Name Affiliation	Weiyuan Qiu Fudan University
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Affiliation	Harbin Institute of Technology	Affiliation	Fudan University

Name Roderick S. C. Wong

Affiliation City University of Hong Kong

Position Emeritus Professor
Contact rodscwong@gmail.com