

PINZHONG ZHENG

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Address: School of Science and Engineering, The Chinese University of Hong Kong, Shenzhen, China

EDUCATION

The Hong Kong Polytechnic University

09/2024 - Now

Ph.D. in Applied Mathematics

Supervisor: Prof. Zhi Zhou

Southern University of Science and Technology

09/2022 - 06/2024

M.Sc. in Mathematics

GPA: 3.41

Supervisor: Prof. Xiaoming Wang

Wuhan University

09/2018 - 06/2022

B.Sc. in Mathematics

GPA: 3.45

Supervisor: Prof. Fengwen An

RESEARCH EXPERIENCE

Research Assistant

School of Science and Engineering, The Chinese University of Hong Kong, Shenzhen, 2024

- Advisor: Prof. Chaoyu Quan
- Topic: High-order MBP-preserving and energy-decreasing numerical methods for Allen--Cahn equations

PUBLICATIONS

- C. Quan, X. Wang, P. Zheng and Z. Zhou (2024). Maximum bound principle and original energy dissipation of arbitrarily high-order rescaled exponential time differencing Runge--Kutta schemes for Allen--Cahn equations. ArXiv, abs/2404.19188.

RESEARCH INTERESTS

- Exponential time differencing methods for semi-linear parabolic equations
- Structure-preserving numerical schemes for gradient flows

TEACHING EXPERIENCE

Teaching Assistant

Calculus, Southern University of Science and Technology, 2023

HONORS

- Excellent Master's Thesis of Southern University of Science and Technology, 2024

- National Encouragement scholarship, 2020
- The Provincial Second Prize, Contemporary Undergraduate Mathematical Contest in Modelling (CUMCM), 2020
- Outstanding students of Wuhan University, 2020
- The Third Prize, the Chinese Mathematics Competitions (CMC), 2019

PERSONAL SKILLS

- Academic Skills: Proficient in *MATLAB* and *LaTeX*
- English Proficiency: IELTS: 6.5
- Hobbies: Long-distance running (personal best of 10-km is 53 minutes)