

Zuodong, WANG

王作栋

Paris, France
zuodong.wang@inria.fr
wangzuodong1997.github.io

EDUCATION

PhD

SERENA team, Inria & ENPC – 2025 [link](#)

Engineer's degree (2023)

Ecole de Ponts ParisTech – [link](#)

Master (2022)

Ecole de Ponts ParisTech & Sorbonne Université – [link](#)

- Applied Mathematics: Modeling, Analysis and Simulation
- Grade: 16.10/20 (top class)

Bachelor (2020)

Beijing University of Technology – [link](#)

- Mathematics and Applied Mathematics
- GPA: 3.77/4.0

LANGUAGES

Chinese (Mandarin): Native

English: Fluent

French: Fluent

Japanese: Duolingo

AWARDS

Outstanding Graduate

Beijing University of Technology, 2020

Model Student of Academic Records

Beijing University of Technology, 2016 – 2020

EXPERIENCE

Visiting scholar

Texas A&M university – College station, USA, September 2023 – May 2024

Internship (projet de fin d'étude)

Inria Centre de Paris – Paris, France, April 2022 – September 2022

Internship (stage court)

Inria Centre de Paris – Paris, France, June – September 2021

RESEARCH INTERESTS

Numerical Analysis

- Hyperbolic conservation laws
- Semi-linear parabolic problems
- PDEs with stiff source term
- Asymptotic-preserving schemes
- Bounds-Preserving schemes
- A posteriori error analysis

Programming

C++, Python, Matlab, Julia (currently using)

TEACHING

Explorations in Mathematics (instructor)

2024 – Texas A&M university [link](#)

HOBBIES

ACG(Anime, Comics, Games)

PUBLICATIONS

(Preprint) A posteriori error analysis and adaptivity of a space-time finite element method for the wave equation in second order formulation

2025 – [link](#)

A bound-preserving scheme for the Allen-Cahn equation

2025 – *Computers & Mathematics with Applications* [link](#)

(Preprint) A priori and a posteriori error estimates of a C^0 -in-time method for the wave equation in second order formulation

2024 – [link](#)

Mass conservative limiting and applications to the approximation of the steady-state radiation transport equations

2025 – *Journal of Computational Physics* [link](#)

Asymptotic and invariant-domain preserving schemes for scalar conservation equations with stiff source terms and multiple equilibrium points

2024 – *Journal of Scientific Computing* [link](#)

Hybrid high-order methods for elliptic PDEs on curved and complicated domains

2022 – *13th ICOSAHOM 2020/2021 Conference Proceeding* [link](#)

The Proof of 2n Circle Arrangement Conjecture

2017 – *Pure Mathematics* [link](#)

CONFERENCES

Conference

30th Biennial Conference on Numerical Analysis – *Glasgow, UK, contributed talk*

- hp-version a priori error estimates of a DG-CG method for the linear wave equation

Conference

International Conference on Applied Mathematics 2024 – *Hongkong, China, contributed talk*

- Asymptotic-preserving and invariant-domain preserving schemes for scalar hyperbolic conservation laws with stiff source term

Conference

Finite Element Rodeo 2024 – *Houston, USA, 2024, Mini-Symposium*

- Monotonicity, sonic points and convergence of a stabilized FEM scheme for hyperbolic conservation laws

Conference

The 6th SIAM Texas-Louisiana Sectional Meeting – *Lafayette, USA, 2023, Mini-Symposium*

- Asymptotic and invariant-domain preserving schemes for hyperbolic conservation laws with stiff reaction source term

Workshop

Kinetic and hyperbolic equations: modeling, analysis and numerics – *Toulouse, France, 2022, participated*

Conference

Interplay of discretization and algebraic solvers: a posteriori error estimates and adaptivity – *Paris, France, 2022, participated*

Conference

The 18th European Finite Element Fair – *Paris, France, 2021, participated*