Yue Wu (吴越)

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EDUCATION

University of Science and Technology of China (USTC) Hefei, China
School of the Gifted Young *Sept. 2019 — Jul. 2023*
Major: Information and Computational Science
GPA: **3.98** / 4.3 (Ranking **1st** out of 39, 2019 fall – 2021 fall)

RESEARCH INTERESTS

- Numerical methods for PDE: Discontinuous Galerkin, finite difference/volume method, spectral method, etc.
- Scientific computing: parallel numerical solver, adaptive solver

RESEARCH EXPERIENCE

Undergraduate Research Program:
Numerical simulation of plasma equilibrium evolution in nuclear fusion
Supervised by Professor Mengping Zhang and Yan Jiang *Jun. 2021 —May. 2022, USTC*

- Developed a hybrid finite difference-pseudo spectral code for RMHD in toroidal geometry and parallelized it on clusters
- Long-time simulation of resistive tearing modes in Tokamak
- Surveyed and implemented DG schemes for controlling global divergence of the magnetic field in ideal MHD

Seminar on numerical PDE and scientific computing
Held by Professor Mengping Zhang *Jun. 2021 — present, USTC*

- Discontinuous Galerkin, WENO, boundary treatment, parallel computing, etc.

Summer Internship:
Positivity-preserving conservative low rank methods for Vlasov dynamics
Supervised by Professor Xiangxiong Zhang *June. 2022 —Aug. 2022, Purdue U. (online)*

TEACHING EXPERICENCE

- TA, Computational Methods B, USTC *Spring 2022*

HONORS AND AWARDS

- National Scholarship for Undergraduate Students, 2021 *USTC, Dec. 2021*
- National Scholarship for Undergraduate Students, 2020 *USTC, Dec. 2020*
- Promotional ambassador for Wuxi as an outstanding student representative *Wuxi, Aug. 2020*
- Third Prize for Freshman Scholarship, USTC *USTC, Sept. 2019*

COMPUTER SKILLS

- Programming languages: C/C++, Fortran, Matlab, Mathematica
- Parallel computing: MPI, OpenMP

- Writing tool: LaTeX

RELAVENT COURSEWORK

Real Analysis, Functional Analysis, Differential Equations I/II (ODE/PDE), Numerical Analysis, Numerical Algebra, Numerical PDE, Wavelet Analysis, Probability Theory, Differential Geometry