JINGMIN SUN Ph.D.

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EDUCATION

Department of Mathematical Science, Carnegie Mellon University   Pittsburgh, PA

Ph.D. in Mathematical Science   2020.09 - 2025.05 *(expected)*
- Advisor: Prof. Hayden Schaeffer
- Research area: Operator learning, PDE foundation Model

Department of Mathematical Science, Rensselaer Polytechnic Institute   Troy, NY

B.S. in Mathematics   2017.09 - 2019.12
Ph.D candidates in Mathematics   2020.01 - 2020.05
- GPA: 3.98/4.00; Summa Cum Laude

PUBLICATIONS AND PREPRINTS

1. **Jingmin Sun,** Yuxuan Liu, Zecheng Zhang, and Hayden Schaeffer. Towards a foundation model for partial differential equations: Multi-operator learning and extrapolation, 2024.

2. **Jingmin Sun,** Zecheng Zhang, and Hayden Schaeffer. LeMON: Learning to Learn Multi-Operator Networks, 2024.

3. Yuxuan Liu, **Jingmin Sun,** Xinjie He, Griffin Pinney, Zecheng Zhang, and Hayden Schaeffer. PROSE-FD: A Multimodal PDE Foundation Model for Learning Multiple Operators for Forecasting Fluid Dynamics, 2024.

4. Derek Jollie*, **Jingmin Sun*,** Zecheng Zhang, and Hayden Schaeffer. Time-Series Forecasting, Knowledge Distillation, and Refinement within a Multimodal PDE Foundation Model, 2024. (*Equal contribution)

PROJECTS

BelNet on Dynamical System
Carnegie Mellon University   2023.05 - 2023.08

Kernel Analog Forecasting with Controls
Carnegie Mellon University   2022.05 - 2023.05

On Sticky Brownian Motion and Numerical Solution
Rensselaer Polytechnic Institute, worked with Prof. Fengyan Li   2020.01 - 2020.05

TEACHING AND MENTORING

TA for Numerical Methods | Carnegie Mellon University   Spring, Fall 2024

REU Co-Mentor | University of California, Los Angeles   Summer 2024

TA for Numerical PDEs | Carnegie Mellon University   Fall 2022

TA for Integration and Approximation | Carnegie Mellon University   Spring 2022

AWARDS

- **Travel Award,** SIAM Conference on Mathematics of Data Science   2024.07
- **The Max Hirsch Prize,** Rensselaer Polytechnic Institute   2020.05

PRESENTATIONS

LeMON: Learning to Learn Multi-Operator Networks
ACM seminar at Florida State University   2024.09

SKILLS

Languages: Chinese, English.

Programming: `Python`, `C++`, `MATLAB`.