

CURRICULUM VITAE

Zhichao Peng

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Education

- *Ph.D.* Department of Mathematical Sciences, Rensselaer Polytechnic Institute, Troy, NY, United States, 08/2015-05/2020 (anticipated date).
Advisor: Fengyan Li
- *B.S.* School of Mathematical Sciences, Peking University, Beijing, P. R. China, September 2011 - July 2015.

Research Interests

- Kinetic problems
- Structure preserving methods: asymptotic preserving methods for multiscale problems, positivity preserving schemes
- Nonlinear optics and its numerical simulation
- Discontinuous Galerkin method and its application in scientific computation

Awards

- Founders Award of Excellence, Rensselaer Polytechnic Institute, 2018

Publications

- Preprints:
 1. Stability-enhanced AP IMEX-LDG schemes for linear kinetic transport equations under a diffusive scaling (submitted)
 2. Asymptotic and positivity preserving methods for Kerr-Debye model with Lorentz dispersion in one dimension (submitted)
 3. Analysis of asymptotic preserving IMEX-LDG schemes for linear kinetic transport equations

Academic presentations

- Invited Talks
 - 2018 SIAM Annual Meeting, Oregon Convention Center, Portland, OR, USA, July 9-13, 2018.
 - The 3rd Annual Meeting of SIAM Central States Section, Colorado State University, Fort Collins, CO, September 29 - October 1, 2017.
- Poster Presentation
 - The ICERM 2018 Topical Workshop: Computational Aspects of Time Dependent Electromagnetic Wave Problems in Complex Materials, ICERM, Providence, RI, June 25-29, 2018
- Workshop and Conference Participation
 - Frontiers in Applied and Computational Mathematics, ICERM, Providence, RI, January 4-6, 2017

Skills

- Fortran, Matlab, C , C++, MPI, PETSC

Professional Activities

- Reviewer:
 - SIAM Journal on Scientific Computing
 - Journal of Applied Mathematics and Physics