

# Zhichao Peng

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CONTACT INFORMATION	Department of Mathematical Sciences Rensselaer Polytechnic Institute 110 8th Street Troy, NY, 12180 USA	<a href="mailto:pengz2@rpi.edu">pengz2@rpi.edu</a> <a href="https://zhichaopengmath.github.io">https://zhichaopengmath.github.io</a>
EDUCATION	<b>Department of Mathematical Sciences, Rensselaer Polytechnic Institute,</b> Troy, NY, USA Ph.D. Candidate, Mathematics, 08/2015-05/2020 (expected) <ul style="list-style-type: none"><li>• Advisor: Professor Fengyan Li</li></ul> <b>School of Mathematical Sciences, Peking University,</b> Beijing, P.R.China B.S. in Mathematics, 09/2011 - 07/2015	
RESEARCH INTERESTS	<ul style="list-style-type: none"><li>• Finite element methods: discontinuous Galerkin (DG) method, discontinuous Petrov-Galerkin (DPG) method</li><li>• Structure preserving methods: asymptotic preserving, positivity preserving, energy stable</li><li>• Numerical methods for kinetic models, Maxwell's equations in nonlinear media</li></ul>	
RESEARCH EXPERIENCE	08/2015 – 05/2020	Student research assistant Advisor: Professor Fengyan Li Rensselaer Polytechnic Institute 05/2019 – 08/2019
		Student Intern Advisor: Xianzhu Tang Los Alamos National Laboratory
PUBLICATIONS	<ul style="list-style-type: none"><li>• Submitted<ul style="list-style-type: none"><li>– Z. Peng, Y. Cheng, J.-M. Qiu, F. Li, <i>Stability-enhanced AP IMEX-LDG schemes for linear kinetic transport equations under a diffusive scaling</i>, submitted to Journal of Computational Physics , 07/2019</li><li>– Z. Peng, V. A. Bokil, Y. Cheng, F. Li, <i>Asymptotic and positivity preserving methods for Kerr-Debye model with Lorentz dispersion in one dimension</i>, submitted to Journal of Computational Physics (under minor revision), 05/2019</li></ul></li><li>• Preprint<ul style="list-style-type: none"><li>– Z. Peng, Y. Cheng, J.-M. Qiu, F. Li, <i>Stability, asymptotic and error analysis of AP IMEX-LDG schemes for linear kinetic transport equations under a diffusive scaling</i></li></ul></li></ul>	
PRESENTATIONS	<ul style="list-style-type: none"><li>• Invited talks<ul style="list-style-type: none"><li>– Applied Math Days, Rensselaer Polytechnic Institute, 04/05 - 04/06, 2019</li><li>– Seminar, School of Mathematical Sciences, University of Science and Technology of China, Hefei, China, 12/25, 2018</li><li>– Seminar, School of Mathematical Sciences, Peking University, Beijing, China, 12/27, 2018</li></ul></li></ul>	

		<ul style="list-style-type: none"> <li>– 2018 SIAM Annual Meeting, Oregon Convention Center, Portland, OR, USA, 07/09 - 07/13, 2018</li> <li>– The 3rd Annual Meeting of SIAM Central States Section, Colorado State University, Fort Collins, CO, USA, 09/29 - 10/01, 2017</li> </ul>
		<ul style="list-style-type: none"> <li>• Poster presentation <ul style="list-style-type: none"> <li>– The ICERM 2018 Topical Workshop: Computational Aspects of Time Dependent Electromagnetic Wave Problems in Complex Materials, ICERM, Providence, RI, USA, 07/25 - 07/29, 2018</li> </ul> </li> </ul>
PROFESSIONAL TRAVEL		<ul style="list-style-type: none"> <li>• Model and dimension reduction in uncertain and dynamic systems, ICERM, Providence, RI, USA 01/27 - 05/01, 2020 (expected)</li> <li>• Frontiers in Applied and Computational Mathematics, ICERM, Providence, RI, USA, 01/04- 01/06, 2017</li> </ul>
TEACHING EXPERIENCE	Fall, 2019 Fall, 2018 Fall, 2017 Fall, 2017	Teaching Assistant, MATH 2400 - Intro to Differential Equations, Rensselaer Polytechnic Institute, Fall 2019 Teaching Assistant, MATH 4090 - Foundation of Analysis, Rensselaer Polytechnic Institute, Fall 2018 Teaching Assistant, MATH 4200 - Mathematical Analysis I, Rensselaer Polytechnic Institute, Fall 2017 Teaching Assistant, MATH 4090 - Foundation of Analysis, Rensselaer Polytechnic Institute, Fall 2017
HONORS AND AWARDS	2018	Founders Award of Excellence, Rensselaer Polytechnic Institute
PROFESSIONAL SERVICE		Reviewers for <i>SIAM Journal on Scientific Computing</i> , <i>Journal of Applied Mathematics and Physics</i>
RELEVANT SKILLS		<ul style="list-style-type: none"> <li>• Fortran, C, C++, Matlab,</li> <li>• MPI, PETSC, MFEM, HYPRE, Latex, Git</li> <li>• English, Chinese</li> </ul>