CURRICULUM VITAE

Yanping Chen

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Education:

1997-1999 Postdoc, Computational Mathematics, Nanjing University
1997 Ph.D. Computational Mathematics, Shandong University
1988 M.Sc. Computational Mathematics, Xiangtan University
1982 B.Sc. Mathematics, Xiangtan University

Academic position:

2008-present Professor,Guangdong Provincial "Zhujiang Scholar" School of Mathematical Sciences, South China Normal University 2002-2008 Associate Director Hunan Key Laboratory for Computation and Simulation in Science and Engineering; Institute for Computational and Applied Mathematics; School of Mathematics and Computation Science, Xiangtan University 1999-2008 Professor School of Mathematics and Computation Science, Xiangtan University 1994-1999 Associate Professor Department of Mathematics, Xiangtan University 1988-1994 Lecturer Department of Mathematics, Xiangtan University 1982-1988 Teacher Assistant Department of Mathematics, Xiangtan Normal College

Academic visit:

2014.4.8-2014.4.22 Nanyang Technological University, Singapore 2013.12.12-2013.12.19Hong Kong Baptist University 2013.11.1-2013.11.25 Humboldt-Universitätzu Berlin, Germany 2011.3.1-2011.3.7 Hong Kong Baptist University 2011.2.21-2011.2.28 King Abdullah University of Science and Technology 2011.2.17-2011.2.20 University of California, Irvine 2011.2.11-2011.2.17 University of Nevada Las Vegas 2010.3.22-2010.6.7 Hong Kong Baptist University 2008.7.30-2008.8.19 Peking University 2007.9.3-2007.9.30 Nanyang Technological University, Singapore
2007.8.15-2007.8.31 Peking University
2007.3.10-2007.6.25 Hong Kong Baptist University
2005.10.24-2005.12.23 Hong Kong Baptist University
2005.8.4 Wayne University, USA
2005.8.3 York University, Canada
2004.12.8-2004.12.14 Peking University
2003.9.5-2004.1.31 University of Kent, Canterbury, UK
2003.1.5-2003.4.6 Hong Kong Baptist University
2001.12.1-2002.3.31 Hong Kong Baptist University
2000.5.15-2000.11.15 Chinese Academy of Sciences
1998.11.4-1999.4.5 Penn State University, USA

Member of the editorial boards:

Mathematica Numerica Sinica, July 1, 2014– December 31, 2020 Numerical Mathematics: A Journal of Chinese Universities, Jan.,2010 -Advances in Applied Mathematics and Mechanics, the Global Science Press, 2008-

Research interest:

Mixed finite element methods; Numerical methods for miscible displacement problems; Moving mesh methods for singularly perturbed problems; Adaptive mixed FEM for optimal control problems; Numerical analysis of spectral methods.

Recent research grants:

- 1. The State Key Program of National Natural Science Foundation of China (11931003, 2020-2024);
- 2. National Natural Science Foundation of China (41974133, 2020-2023);
- 3. National Natural Science Foundation of China (11671157, 2017-2020);
- 4. National Natural Science Foundation of China (91430104, 2015-2017);
- 5. National Natural Science Foundation of China (11271145, 2013-2016);
- 6. National Natural Science Foundation of China (10971074, 2010-2012);
- 7. National Natural Science Foundation of China (10671163, 2007-2009);
- 8. National Natural Science Foundation of China (10371104, 2004-2006);
- 9. National Natural Science Foundation of China (10071065, 2001-2003);
- 10. The Foundation for High-level Talent Faculty of Guangdong Provincial University (2012-2014);
- 11. High Capability Scientific Computation, National Basic Research Program (973, under the Grant No. 2005CB321703) ------ group member (2005-2010);
- 12. Specialized Research Fund for the Doctoral Program of Higher Education (20114407110009, 2012-2014);
- 13. The Foundation for Talent Introduction of Guangdong Provincial University (2009-2011);
- 14. Guangdong Province Universities and Colleges Pearl River Scholar Funded Scheme (2008-2012);
- 15. The Project of Department of Education of Guangdong Province (2012KJCX0036,

2012-2014);

- 16. Program for New Century Excellent Talents in University (NCET-04-0776, 2004-2006);
- 17. Backbone Teachers Foundation of China State Education Ministry (GG-110-10530-1023, 2000-2002);
- 18. The key project of Hunan Education Commission (06A069, 2007-2009);
- 19. The key project of China State Education Ministry (204098, 2004-2005);
- 20. The key project of Hunan Education Commission (03A045, 2003-2004);

Awards and Honor:

- 2019 Scientific Research Excellence Award, South China Normal University
- 2017 The second-class award of Science and Technology by State Education Ministry
- 2012 The second-class award in Nature Science of Guangdong Province
- 2011 The first-class award in Nature Science of Hunan Province
- 2008 The first-class award of Science and Technology by State Education Ministry
- 2008 The first-class award of Teaching Achievement in Hunan Province
- 2008 Supported by Guangdong Provincial "Zhujiang Scholar Award Project"
- 2006 China Quality Open Course "Numerical Methods" (Lecturer)
- 2006 The second -class award of Teaching Achievement in Hunan Province
- 2005 Excellent Researcher on Science and Technology Award, Xiangtan University
- 2004 Government Special Subsidy, The State Council of China
- 2004 Supported by Program for New Century Excellent Talents in University by State Education Ministry
- 2004 The second-class award in Science and Technology Progress of Hunan Province
- 2004 Excellent Teacher Award, Xiangtan University
- 2002 Excellent backbone teacher of Chinese Universities by State Education Ministry

Invited talk:

- 1. An online conference on "Brazil-China Cooperation," September 13-17, 2021, Dongguan University of Technology. (invited speaker)
- The 5th Brazil-China Symposium on Applied and Computational Mathematics, August 23 to 27, 2021, Dongguan University of Technology. (invited speaker)
- 3. The 1st Symposium on Earth Energy and Big Data, China University of Geosciences, July 16-17, 2021. (invited speaker, Academic member of the Conference)
- 4. "Hong Kong, Macao and Mainland China Exchange Program for College Students -- Journey to Longshan Mathematics and Culture", July 7-17, 2021, Lanzhou University (online conference, invited speaker)
- 5. The 4th International Workshop on Numerical Analysis and Applications of Fractional Differential Equations, July 13-16, 2021, Inner Mongolia University. (invited speaker)
- 6. Symposium on "Scientific Computing: Theory and Applications", June 24-28, 2021, Sichuan University. (invited speaker)
- 7. An online conference on "Recent Progress in Nonlocal Modeling, Analysis and Computation," June 14-18, 2020, Southern University of Science and Technology. (invited speaker)
- 8. The workshop on "Nonlinear Problems: Numerics and Applications", Tsinghua Sanya International Mathematics Forum (TSIMF), January 11-16, 2020, Sanya. (invited speaker)
- 9. The seventh China-Germany workshop on Computational Mathematics, Kiel University,

Germany, August 19-23, 2019. (invited speaker)

- 10. Computational Multiscale Methods, July 28- August 3, 2019, Oberwolfach, Germany. (invited speaker)
- The 9th International Congress on Industrial and Applied Mathematics, minisymposium on numerical methods for PDE-constrained optimal control problems, July 15-19, 2019, Valencia, Spain. (invited speaker)
- 12. Workshop on Computation of Kinetic Transport and Related Problems, June 21-22, 2019, Shanghai Jiao Tong University, Shanghai. (invited speaker)
- International Conference on Mathematical Modeling and Numerical Methods, May 30-June 2, 2019, Qingdao. (invited speaker)
- 14. The International Workshop on PDE-Constrained Optimization, Optimal Control & Applications, December 10-14, 2018, Sanya. (invited speaker)
- The International Conference on Spectral and High-Order Methods (ICOSAHOM 2018), a mini-symposium on Spectral and High-Order Methods for Singular and Nonlocal Problems, July 9-13, 2018, Imperial College London, UK. (invited speaker)
- 16. The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications, organize a special session: Special Session SS59: Efficient Algorithms for Flow and Transport in Porous Media, Taipei, July 5-9, 2018. (invited session organizer)
- 17. The workshop on "Modeling and Simulation of Interface-related Problems", the Institute for Mathematical Sciences (IMS) of NUS, Singapore, from 30 April to 3 May 2018. (invited speaker)
- 18. The Workshop on Computational Mathematics, The Hong Kong Polytechnic University, Hong Kong, Dec. 9-12, 2017. (invited speaker)
- 19. The sixth China-Germany workshop on Computational Mathematics, Tongji University, Shanghai, China, Oct. 9-13, 2017. (invited speaker)
- 20. The International Workshop on Computational Mathematics and Scientific Computing, June 28-July 2, 2017, Ocean University of China, Qingdao, China. (invited speaker)
- 21. The International Workshop on Advances in Numerical PDEs and Fast Solvers, December 16-18, 2016, Wuhan University. (Plenary speaker)
- 22. The 9th National Conference on Finite Element Methods, August 19-22, 2016, Emei Mountain. (Plenary speaker, 40 minutes)
- 23. The 11th bi-annual Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida, USA on July 1-5, 2016. (invited speaker)
- 24. The 11th ICOSAHOM International Conference on Spectral and High-Order Methods, Rio de Janeiro, Brazil from June 27th to July 1st, 2016. (invited speaker)
- 25. The Workshop on Numerical Methods of Nonlinear Problems at Tsinghua Sanya International Mathematics Forum (TSIMF), January 11-15, 2016. (invited speaker)
- The fifth workshop in the series on Spectral Methods and Their Applications, October 9-12, 2015, Jiangsu Normal University. (invited speaker)
- 27. Workshop on Frontiers in Computational and Applied Mathematics on September 20, 2015 in Guangzhou during the annual meeting of the Chinese Computational Mathematics Society, at the occasion of the 80th birthday of Professor Hong-ci Huang. (invited speaker)
- 28. The International Conference on Computational Mathematics and Sciences at Xi'an Jiaotong University, China, June 6-8, 2015. (invited speaker)
- 29. The 5th International Conference on Scientific Computing and Partial Differential Equations (SCPDE14) On the Occasion of EitanTadmor's 60th Birthday, minisymposium on High Order

Numerical Methods for Integral Equations, Hong Kong Baptist University, 8-12 December 2014. (minisymposium organizer, invited speaker)

- 30. The Workshop on Recent Advances in Numerical Analysis, November 14-16, 2014, Shanghai Jiao Tong University. (invited speaker)
- The Third Cross-straits Workshop on Computational Mathematics, Sep. 19-23, 2014, Xiangtan University. (Plenary speaker)
- 32. The International Conference on Spectral and High Order Methods, mini-symposium proposal on Spectral and High Order Methods for Fractional and Integral Differential Equations, June 23-27, 2014, Salt Lake City, USA. (invited speaker)
- The Sino-French conference on Computational and Applied Mathematics, June 2-6, 2014, Xiamen University, Xiamen, China. (invited speaker)
- 34. The International Workshop on the Finite Element/Spectral Methods, May 16-18, 2014, Shanghai Normal University, Shanghai, China. (invited speaker)
- 35. The Second International Conference on Engineering and Computational Mathematics (ECM2013), 16-18 December 2013, Hong Kong polytechnic University. (invited speaker)
- 36. The conference on Numerical Methods and related problems for Optimal Control problems, July 14-17, 2013, Beijing. (invited speaker)
- 37. The first Chongqing Workshop on Computational and Applied Mathematics, 30 May 2 June 2013, Chongqing University. (invited speaker)
- International Conference on Computational Science On the Occasion of Professor Ben-yu Guo's 70th Birthday, July 16-20, 2012, Shanghai Normal University, Shanghai. (invited speaker, 40 minutes)
- 39. The 8th International Conference on Scientific Computing and Applications, April 1-4, 2012, University of Nevada Las Vegas, Las Vegas. (invited speaker)
- 40. The fourth International Conference on Scientific Computing and Partial Differential Equations, Hong Kong Baptist University, 5-9 December 2011. (invited speaker, 40 minutes)
- 41. The fourth China-Germany workshop on Computational Mathematics, South China Normal University, Guangzhou, China, Sep. 26-30, 2011. (invited speaker, 40 minutes)
- 42. International Conference on Partial Differential Equations & Numerical Analysis, Guiyang, Aug. 22-24, 2011. (invited speaker)
- 43. Third Workshop on Recent Advances on Spectral Methods and Related Applications, Shanghai Normal University, Shanghai, China, July 14-17, 2011. (invited speaker, 30 minutes)
- 44. International Conference on Interdisciplinary Applied and Computational Mathematics, June 17-21, 2011, Zhejiang University, Hangzhou, China. (invited speaker, 25 minutes)
- 45. The First Cross-straits Workshop on Computational Mathematics, Aug. 3-6, 2010, Xiamen University. (Plenary speaker)
- 46. The Workshop on Numerical Methods for PEDs, on July 28th-August 1st, 2010, at Sun Yat-Sen University, Guangzhou. (invited speaker, 40 minutes)
- 47. 2009 annual meeting of Chinese Mathematical Society, April 21-24, 2009, Xiamen University. (invited speaker)
- 48. 2009 Annual meeting of Computational Mathematics Society of Guangdong Province, March 21, 2009, South China Agricultural University, Guangzhou. (Plenary speaker, 40 minutes)
- 49. The third International Conference on Scientific Computing and Partial Differential Equations, Hong Kong Baptist University, 8-12 December 2008. (40 minutes)
- 50. International Workshop on Numerical Analysis and Computational methods for Functional Differential and Integral Equations, December 3-6, 2007 Hong Kong Baptist University, Hong

Kong. (50 minutes)

- 51. The second China-Germany workshop on Computational Mathematics on Oct. 9-13, 2007, Zhejiang University, Hangzhou, China. (40 minutes)
- 52. The tenth annual meeting on Computational Mathematics of National University, Oct. 17-21, 2005, Dalian University of Technology. (Plenary speaker, 40 minutes)
- 53. The first China-Germany workshop on Computational Mathematics on Sep. 5-10, 2005, Humboldt-University, Berlin, Germany. (40 minutes)
- 54. The seventh Japan-China Joint Seminar on Numerical Mathematics, August 16-20, 2004, Zhang Jia Jie, China. (one hour)
- 55. The conference on "Recent Advances in Adaptive Computation", May 24-28, 2004, Zhejiang University, Hangzhou, China. (half hour)
- 56. The conference on "Superconvergence and a posteriori error estimates in finite element methods", May 31- June 2, 2004, Changsha, China. (half hour)
- 57. The CMS Summer 2003 meeting, June 14-16, 2003, University of Alberta, Edmonton, Canada. (half hour)

Publications:(* corresponding author)

- 1. Xiuxiu Lin, **Yanping Chen*** and Yunqing Huang, Galerkin spectral methods for an elliptic optimal control problem with L^{2} -norm state constraint, Communications in Mathematical Sciences(accepted, December 30, 2020)
- 2. Li-Bin Liu, **Yanping Chen***, and Ying Liang, Numerical analysis of a nonlinear singularly perturbed delay Volterra integro-differential equation on an adaptive grid, Journal of Computational Mathematics. (accepted, August 28, 2020)
- 3. Xiaoli Li, **Yanping Chen***, and Chuanjun Chen, An improved two-grid technique for the nonlinear time-fractional parabolic equation based on the block-centered finite difference method, Journal of Computational Mathematics. (accepted, November 28, 2020)
- 4. Weishan Zheng and **Yanping Chen***, Spectral method for weakly singular Volterra integro-differential equation with pantograph delay, Acta Mathematica Scientia. (accepted, April 10, 2021)
- 5. **Yanping Chen***, Qiling Gu, Qingfeng Li and Yunqing Huang, A two-grid finite element approximation for nonlinear time fractional two-term mixed sub-diffusion and diffusion wave equations, Journal of Computational Mathematics. (accepted, April 6, 2021)
- 6. Hanzhang Hu and **Yanping Chen***, A characteristic mixed finite element two-grid method for compressible miscible displacement problem, Journal of Computational Mathematics. (accepted, January 28, 2021)
- 7. Zhikun Tian, **Yanping Chen**, Jianyun Wang*, A two-grid mixed finite element method for two-dimensional time-dependent Schrodinger equations, Applied Mathematics and Mechanics (English Edition), 2021.
- 8. Wenting Mao, **Yanping Chen*** and Huasheng Wang, A-posteriori error estimations of the Petrov-Galerkin methods for fractional Helmholtz equations, Numerical Algorithms. (accepted, May 29, 2021)
- 9. Qingfeng Li, **Yanping Chen***, Yunqing Huang and Yang Wang, Two-grid methods for nonlinear time fractional diffusion equations by L1-Galerkin FEM, Mathematics and Computers in Simulation, Vol. 185, July 2021, pp. 436-451.

- Ying Liu, Yanping Chen*, Yungqing Huang and Yang Wang, Two-grid method for semiconductor device problem by mixed finite element method and characteristics finite element method, Electronic Research Archive, Vol. 29, No. 1, March 2021, pp. 1859-1880.
- Ying Liu, Yanping Chen*, Yunqing Huang and Qingfeng Li, Analysis of a two-grid method for semiconductor device problem, Applied Mathematics and Mechanics (English edition), Vol. 42, No. 1, 2021, pp. 143-158.
- 12. Jun Liu, Chen Zhu, **Yanping Chen*** and Hongfei Fu, A Crank-Nicolson ADI quadratic spline collocation method for two-dimensional Riemann-Liouville space-fractional diffusion equations, Applied Numerical Mathematics, Vol. 160, 2021, pp. 331-348.
- 13. Li-Bin Liu, **Yanping Chen***, A posteriori error estimation and adaptive strategy for a nonlinear fractional differential equation, International Journal of Computer Mathematics, 2021, pp. 1-7.
- Tang Bo, Yanping Chen*. A posteriori error estimates of spectral Galerkin methods for multi-term time fractional diffusion equations. Applied Mathematics Letters, Vol. 120, 2021, 107259.
- 15. Wenting Mao, **Yanping Chen***, and Huasheng Wang, A-posteriori error estimations of the GJF-Petrov-Galerkin methods for fractional differential equations, Computers & Mathematics with Applications, Vol. 90, May 2021, pp. 159-170.
- Hanzhang Hu and Yanping Chen*, Analysis of finite element two-grid algorithms for two-dimensional nonlinear Schrödinger equation with Wave Operator, Journal of Computational and Applied Mathematics, Vol. 397, December 2021, 113647.
- 17. Haitao Leng and **Yanping Chen***, Residual-type a posteriori error analysis of HDG methods for Neumann boundary control problems, Advances in Computational Mathematics, Vol. 47, No. 30, 2021, pp. 1-20.
- 18. **Yanping Chen** and Hanzhang Hu*, Two-grid method for miscible displacement problem with dispersion by finite element method of characteristics, Zeitschrift fur Angewandte Mathematik und Mechanik. Vol. 101, No. 3, 2020, 201900275.
- 19. Huasheng Wang, **Yanping Chen***, Yunqing Huang, and Wenting Mao, A Petrov-Galerkin spectral method for fractional convection-diffusion equations with two-sided fractional derivative, International Journal of Computer Mathematics, Vol. 98, No. 3, 2020, pp. 536-551.
- 20. **Yanping Chen***, Xiuxiu Lin, Yunqing Huang and Qian Lin, hp spectral element approximation for integral state constrained optimal control problems governed by harmonic equations, Journal of Computational and Applied Mathematics, Vol. 371, June 2020, 112716.
- Yanping Chen*, Qingfeng Li, Yang Wang and Yunqing Huang, Two-grid methods of finite-element solutions for semi-linear elliptic interface problems, Numerical Algorithms, Vol. 84, Issue 1, May 2020, pp. 307-330.
- Peizhen Wang, Yanping Chen* and Wei Yang, Curl Recovery for the Lowest Order Rectangular Edge Element, Applied Mathematics and Computation, Vol. 371, April 2020, 124897.
- 23. Jiaoyan Zeng, **Yanping Chen*** and Guichang Liu, Rough polyharmonic splines method for optimal control problem governed by parabolic systems with rough coefficient, Computers and Mathematics with Applications, Vol. 80, Issue 1, July 2020, pp. 121-139.
- 24. Yang Wang, **Yanping Chen*** and Yunqing Huang, A two-grid Eulerian-Lagrangian localized adjoint method to miscible displacement problems with dispersion term, Computers and Mathematics with Applications, Vol. 80, Issue 4, August 2020, pp. 54-68.

- 25. Hanzhang Hu and **Yanping Chen***, Numerical solution of two-dimensional nonlinear Schrödinger equation using a new two-grid finite element method, Journal of Computational and Applied Mathematics, Vol. 364, January 2020, 112333.
- 26. Xiuxiu Lin, **Yanping Chen*** and Yunqing Huang, A posteriori error estimates of hp spectral element methods for optimal control problems with L^2-norm state constraint, Numerical Algorithms, Vol. 83, Issue 3, March 2020, pp. 1145-1169.
- Zhaojie Zhou, Jiabin Song and Yanping Chen*, Finite element approximation of space fractional optimal control problem with integral state constraint, Numerical Mathematics-Theory Methods and Applications, Vol. 13, No. 4, November 2020, pp. 1027-1049.
- Yonghui Qin, Yanping Chen*, Yunqing Huang and Heping Ma, Multidomain Legendre-Galerkin and collocation least-squares methods for linear differential equations with variable coefficients, Numerical Mathematics: Theory, Methods and Applications, Vol. 13, No. 3, August 2020, pp. 665-688.
- 29. Xiuxiu Lin, **Yanping Chen*** and Yunqing Huang, Galerkin spectral approximation of optimal control problems with L^2-norm control constraint, Applied Numerical Mathematics, Vol.150, April 2020, pp. 418-432.
- Qingfeng Li, Yanping Chen*, Yunqing Huang and Yang Wang, Two-grid methods for semilinear time fractional reaction diffusion equations by expanded mixed finite element method, Applied Numerical Mathematics, Vol. 157, November 2020, pp. 38-54.
- 31. Yang Wang, **Yanping Chen*** and Yunqing Huang, A two-gird method for semi-linear elliptic interface problems by partially penalized immersed finite element methods, Mathematics and Computers in Simulation, Vol. 169, March 2020, pp. 1-15.
- 32. Hanzhang Hu and **Yanping Chen***, A two-grid method for characteristic expanded mixed finite element Solution of miscible displacement problem, Numerical Linear Algebra with Applications, Vol. 27, Issue 3, May 2020, e2292.
- Hanzhang Hu, Yanping Chen* and Yunqing Huang, A characteristic finite element two-grid algorithm for a compressible miscible displacement problem, Advances in Computational Mathematics, Vol. 46, Issue 2, April 2020, pp. 15-38.
- Haitao Leng and Yanping Chen*, Adaptive hybridizable discontinuous Galerkin methods for nonstationary convection diffusion problems, Advances in Computational Mathematics, Vol. 46, Issue 4, April 2020, pp. 50-72.
- 35. Wenting Mao, **Yanping Chen*** and Haitao Leng, Equivalent a posteriori error estimators for semilinear elliptic equations with Dirac right-hand side, Advances in Applied Mathematics and Mechanics, Vol. 12, No. 3, June 2020, pp. 835-848.
- 36. Huasheng Wang, Yanping Chen*, Yunqing Huang and Wenting Mao, A posteriori error estimates of the Galerkin spectral methods for space-time fractional diffusion equations, Advances in Applied Mathematics and Mechanics, Vol. 12, No. 1, February 2020, pp. 87-100.
- Xiulian Shi, Yanping Chen*, Yunqing Huang and Fenglin Huang, Spectral collocation methods for second-order Volterra integro-differential equations with weakly singular kernels, Advances in Applied Mathematics and Mechanics, Vol. 12, No. 2, April 2020, pp. 480-502.
- Wenping Yuan, Yanping Chen* and Yunqing Huang, A local discontinuous Galerkin method for time-fractional Burgers equation, East Asian Journal on Applied Mathematics, Vol. 10, No. 4, November 2020, pp. 818-837.

- 39. Kang Li, **Yanping Chen*** and Zhijun Tan, Two-grid finite element methods of the Crank-Nicolson Galerkin Approximation for a nonlinear parabolic equation, East Asian Journal on Applied Mathematics, Vol. 10, No. 4, November 2020, pp. 800-817.
- 40. **Yanping Chen***, Xin Zhao and Yunqing Huang, Mortar element method for the time dependent coupling of Stokes and Darcy flows, Journal of Scientific Computing, Vol. 80, No. 2, May 2019, pp. 1310-1329.
- 41. **Yanping Chen***, Haitao Leng and Wendi Yang, Error estimates of pseudostress-velocity MFEM for optimal control problems governed by stokes equations, Applied Numerical Mathematics, Vol. 135, January 2019, pp. 407-422.
- 42. **Yanping Chen***, Yang Wang, Yunqing Huang and Longxia Fu, Two-grid methods of expanded mixed finite-element solutions for nonlinear parabolic problems, Applied Numerical Mathematics, Vol. 144, October 2019, pp. 204-222.
- 43. **Yanping Chen***, Jinling Zhang, Yunqing Huang and Yeqing Xu, A posteriori error estimates of *hp* spectral element methods for integral state constrained elliptic optimal control problems, Applied Numerical Mathematics, Vol. 144, October 2019, pp. 42-58.
- 44. Yunxia Wei and **Yanping Chen***, A Jacobi Spectral Method for Solving Multidimensional Linear Volterra Integral Equation of the Second Kind, Journal of Scientific Computing, Vol. 79, Issue 3, February 2019, pp. 1801-1813.
- 45. Haitao Leng, **Yanping Chen*** and Yunqing Huang, Equivalent a posteriori error estimates for elliptic optimal control problems with L^1-control cost, Computers and Mathematics with Applications, Vol. 77, Issue 2, January 2019, pp. 342-356.
- 46. Zhikun Tian, **Yanping Chen***, Yunqing Huang and Jianyun Wang, Two-grid method for the two-dimensional time-dependent Schrodinger equation by the finite element method, Computers and Mathematics with Applications, Vol. 77, Issue 12, June 2019, pp. 3043-3053.
- 47. Yang Wang, **Yanping Chen***, Yunqing Huang and Ying Liu, Two-grid methods for semi-linear elliptic interface problems by immersed finite element methods, Applied Mathematics and Mechanics (English Edition), Vol. 40, No. 11, October 2019, pp. 1657-1676.
- 48. Weishan Zheng and **Yanping Chen***, Numerical analysis for Volterra integral equation with two kinds of delay, Acta Mathematica Scientia, Vol. 39, Issue 2, March 2019, pp. 607-617.
- 49. Luoping Chen, **Yanping Chen*** and Yunqing Huang, Two grid finite element discretization method for semi-linear hyperbolic integro-differential equations, Numerical Methods for Partial Differential Equations, Vol. 35, Issue 5, September 2019, pp. 1676-1693.
- Yunxia Wei, Yanping Chen* and Yunqing Huang, Legendre collocation method for Volterra integro-differential algebraic equation, Computational Methods in Applied Mathematics, Vol. 19, Issue 4, October 2019, pp. 833-847.
- 51. Yunxia Wei, **Yanping Chen***, Xiulian Shi and Yuanyuan Zhang, Spectral method for multidimensional Volterra integral equation with regular kernel, Frontiers of Mathematics in China, Vol. 14, No. 2, March 2019, 435-448.
- 52. Haotao Cai, **Yanping Chen*** and Yunqing Huang, A Legendre-Petrov-Galerkin method for solving Volterra Integro-differential equations with proportional delays, International Journal of Computer Mathematics, Vol. 96, Issue 5, May 2019, pp. 920-934.
- 53. Fenglin Huang, **Yanping Chen*** and Yunqing Huang, A priori error estimates of Meshless method for optimal control problems of stochastic elliptic PDEs, International Journal of Computer Mathematics, Vol. 96, Issue 5, May 2019, pp. 1048-1065.

- 54. Luoping Chen and **Yanping Chen***, Multigrid method for poroelasticity problem by finite element method, Advances in Applied Mathematics and Mechanics, Vol. 11, No. 6, December 2019, pp. 1-19.
- 55. Weishan Zheng, Yanping Chen* and Yunqing Huang, Convergence analysis of Legendre-collocation spectral methods for second order Volterra integro-differential equation with delay, Advances in Applied Mathematics and Mechanics, Vol. 11, No. 2, February 2019, pp. 1-15.
- 56. Chuanjun Chen, Kang Li, **Yanping Chen*** and Yunqing Huang, Two-grid finite element methods combined with Crank-Nicolson scheme for nonlinear Sobolev equations, Advances in Computational Mathematics, Vol. 45, Issue 2, April 2019, pp. 611-630.
- 57. Shang Liu, **Yanping Chen***, Yunqing Huang and Jie Zhou, An efficient two grid method for miscible displacement problem approximated by mixed finite element methods, Computers and Mathematics with Applications, Vol. 77, No. 3, February 2019, pp. 752-764.
- 58. Yin Yang* and **Yanping Chen**, Spectral collocation methods for nonlinear Volterra integro-differential equations with weakly singular kernels, Bulletin of the Malaysian Mathematical Sciences Society, Vol. 42, Issue 1, January 2019, pp. 297-314.
- Xingfa Yang, Yin Yang*, Yanping Chen and Jie Liu, Jacobi Spectral Collocation Method Based on Lagrange Interpolation Polynomials for Solving Nonlinear Fractional Integro-Differential Equations, Advances in Applied Mathematics and Mechanics, Vol. 10, No. 6, December 2018, pp. 1440-1458.
- 60. Guanrong Li, **Yanping Chen*** and Yunqing Huang, A new weak Galerkin finite element scheme for general second-order elliptic problems, Journal of Computational and Applied Mathematics, Vol. 344, December 2018, pp. 701-715.
- 61. Yang Wang and **Yanping Chen***, A two-grid method for incompressible miscible displacement problems by mixed finite element and Eulerian-Lagrangian localized adjoint methods, Journal of Mathematic Analysis and Applications, Vol. 468, Issue 1, December 2018, pp. 406-422.
- 62. Jiming Yang, **Yanping Chen** and Yunqing Huang*, A priori error estimates of a combined mixed finite element and local discontinuous Galerkin method for an incompressible miscible displacement problem, Applied Mathematics and Computation, Vol. 334, October 2018, pp. 141-151.
- 63. Jianyun Wang and **Yanping Chen***, Superconvergence analysis of bi-k degree rectangular elements for two-dimensional time-dependent Schrodinger equations, Applied Mathematics and Mechanics, Vol. 39, Issue 9, September 2018, pp. 1353 1372.
- 64. Jiaoyan Zeng, **Yanping Chen*** and Hanzhang Hu, Two-grid method for compressible miscible displacement problem by CFEM-MFEM, Journal of Computational and Applied Mathematics, Vol. 337, August 2018, pp. 175-189.
- 65. Weishan Zheng and **Yanping Chen***, Chebyshev spectral method for Volterra integral equation with multiple delays, Journal of Mathematical Study, Vol. 51, No. 2, June 2018, pp. 214-226.
- 66. Keyan Wang and **Yanping Chen***, Analysis of two-grid discretization scheme for semilinear hyperbolic equations by mixed finite element methods, Mathematical Methods in the Applied Sciences, Vol. 41, Issue 9, June 2018, pp. 3370-3391.
- 67. Shang Liu, **Yanping Chen***, Yunqing Huang and Jie Zhou, Two-grid methods for miscible displacement problem by Galerkin methods and mixed finite element methods, International Journal of Computer Mathematics, Vol. 95, No. 8, May 2018, pp. 1453-1477.

- Haotao Cai and Yanping Chen*, A fractional order collocation method for second kind Volterra integral equations with weakly singular kernels, Journal of Scientific Computing, Vol. 75, Issue 2, May 2018, pp. 970 - 992.
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Conference:

- 1. An online conference on "Brazil-China Cooperation," September 13-17, 2021, Dongguan University of Technology. (invited speaker)
- The 5th Brazil-China Symposium on Applied and Computational Mathematics, August 23 to 27, 2021, Dongguan University of Technology. (invited speaker)
- 3. The 1st Symposium on Earth Energy and Big Data, China University of Geosciences, July 16-17, 2021. (invited speaker, Academic member of the Conference)
- 4. "Hong Kong, Macao and Mainland China Exchange Program for College Students -- Journey to Longshan Mathematics and Culture", July 7-17, 2021, Lanzhou University (online conference, invited speaker)
- 5. The 4th International Workshop on Numerical Analysis and Applications of Fractional Differential Equations, July 13-16, 2021, Inner Mongolia University. (invited speaker)
- 6. Symposium on "Scientific Computing: Theory and Applications", June 24-28, 2021, Sichuan University. (invited speaker)
- An online conference on "Recent Progress in Nonlocal Modeling, Analysis and Computation," June 14-18, 2020. (invited speaker)
- 8. The workshop on "Nonlinear Problems: Numerics and Applications", Tsinghua Sanya International Mathematics Forum (TSIMF), January 11-16, 2020, Sanya. (invited speaker)
- 9. International Conference on Domain Decomposition Methods, DDM XXVI, mini-symposium on "Two-grid Method and Its Applications", December 7-12, 2020, The Chinese University of Hong Kong, China. (invited speaker)
- 10. The seventh China-Germany workshop on Computational Mathematics, Kiel University, Germany, August 19-23, 2019. (invited speaker)
- 11. Computational Multiscale Methods, July 28- August 3, 2019, Oberwolfach, Germany. (invited speaker)
- 12. The 9th International Congress on Industrial and Applied Mathematics, minisymposium on numerical methods for PDE-constrained optimal control problems, July 15-19, 2019, Valencia, Spain. (invited speaker)
- 13. Workshop on Computation of Kinetic Transport and Related Problems, June 21-22, 2019, Shanghai Jiao Tong University, Shanghai. (invited speaker)
- 14. International Conference on Mathematical Modeling and Numerical Methods, May 30-June 2,

2019, Qingdao. (invited speaker)

- 15. International Workshop on Current Trends in Numerical PDEs and Applications, December 21-22, 2018, Xi'an.
- 16. The International Workshop on PDE-Constrained Optimization, Optimal Control & Applications, December 10-14, 2018, Sanya. (invited speaker)
- 17. The International Conference on Spectral and High-Order Methods (ICOSAHOM 2018), a mini-symposium on Spectral and High-Order Methods for Singular and Nonlocal Problems, July 9-13, 2018, Imperial College London, UK. (invited speaker)
- 18. The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications, organize a special session: Special Session SS59: Efficient Algorithms for Flow and Transport in Porous Media, Taipei, July 5-9, 2018. (invited session organizer)
- 19. The workshop on "Modeling and Simulation of Interface-related Problems", the Institute for Mathematical Sciences (IMS) of NUS, Singapore, from 30 April to 3 May 2018. (invited speaker)
- 20. The Workshop on Computational Mathematics, The Hong Kong Polytechnic University, Hong Kong, Dec. 9-12, 2017. (invited speaker)
- 21. IAS Focused Program on Scientific Computing, The Hong Kong University of Science and Technology, Hong Kong, Dec. 4-8, 2017.
- 22. The sixth China-Germany workshop on Computational Mathematics, Tongji University, Shanghai, China, Oct. 9-13, 2017. (invited speaker)
- 23. The International Workshop on Computational Mathematics and Scientific Computing, June 28July 2, 2017, Ocean University of China, Qingdao, China. (invited speaker)
- 24. The 10th International Conference on Computational Physics (ICCP10), session on High-Order Methods and Their Applications in Computational Physics, Cotai District, Macao SAR, China, January16-20, 2017.
- 25. The International Workshop on Advances in Numerical PDEs and Fast Solvers, December 16-18, 2016, Wuhan University. (Plenary speaker)
- 26. The 20th IMACS World Congress, mini-symposium on Integral Equations/ Spectral methods", December 10-14, 2016, Xiamen, China. (mini-symposium organizer)
- 27. The Workshop on "Mathematical Analysis of Metamaterials and Applications", Tsinghua Sanya International Mathematics Forum (TSIMF), December 5-9, 2016, Sanya.
- 28. The 11th bi-annual Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida, USA on July 1-5, 2016. (invited speaker)
- 29. The 11th ICOSAHOM International Conference on Spectral and High-Order Methods, Rio de Janeiro, Brazil from June 27th to July 1st, 2016. (invited speaker)
- 30. The 10th international conference on scientific computing and applications (ICSCA2016), at the Fields Institute, Toronto, Canada, June 6 10, 2016. (invited speaker)
- The Workshop on Numerical Methods of Nonlinear Problems at Tsinghua Sanya International Mathematics Forum (TSIMF), January 11-15, 2016. (invited)
- 32. The fifth workshop in the series on Spectral Methods and Their Applications, October 9-12, 2015, Jiangsu Normal University.(invited speaker)
- 33. The Satellite Meeting of ICIAM 2015, Recent Developments in Computational Mathematics and Applications, Jinggangshan, China, August 3-8, 2015.
- 34. The International Conference on Computational Mathematics and Sciences at Xi'an Jiaotong University, China, June 6-8, 2015. (invited speaker)
- 35. The 5th International Conference on Scientific Computing and Partial Differential Equations

(SCPDE14) On the Occasion of EitanTadmor's 60th Birthday, minisymposiumon High Order Numerical Methods for Integral Equations, Hong Kong Baptist University, 8-12 December 2014. (minisymposium organizer, invited speaker)

- 36. The Workshop on 'Recent Advances in Numerical Analysis', November 14-16, Shanghai Jiao Tong University.(invited speaker)
- The International Conference on Spectral and High Order Methods, mini-symposium proposal on Spectral and High Order Methods for Fractional and Integral Differential Equations, June 23-27, 2014, Salt Lake City, USA.(invited speaker)
- 38. The Sino-French conference on Computational and Applied Mathematics, June 2-6, 2014, Xiamen University, Xiamen, China. (invited speaker)
- 39. The International Workshop on the Finite Element/Spectral Methods, May 16-18, 2014, Shanghai Normal University, Shanghai, China. (invited speaker)
- 40. The Second International Conference on Engineering and Computational Mathematics, 16-18 December 2013, Hong Kong polytechnic University. (invited speaker)
- 41. Fourth Workshop on Recent Advances on Spectral Methods and Related Applications, November 2-4, 2013, Xiamen University, China
- 42. The conference on Numerical Methods and related problems for Optimal Control problems, July 14-17, 2013, Beijing. (invited speaker)
- 43. The 1st Chongqing Workshop on Computational and Applied Mathematics, 30 May 2 June 2013, Chongqing University. (invited speaker)
- 44. International Conference on Computational Science On the Occasion of Professor Benyu Guo's 70th Birthday, July 16-20, 2012, Shanghai Normal University, Shanghai. (invited speaker)
- 45. The 8th International Conference on Scientific Computing and Applications, April 1-4, 2012, University of Nevada Las Vegas, Las Vegas. (invited speaker)
- 46. The fourth International Conference on Scientific Computing and Partial Differential Equations, Hong Kong Baptist University, 5-9 December 2011. (invited speaker)
- 47. The fourth China-Germany workshop on Computational Mathematics, South China Normal University, Guangzhou, China, Sep. 26-30, 2011. (invited speaker, Local Organizing Committee)
- 48. International Conference on Partial Differential Equations & Numerical Analysis, Aug. 22-24, 2011, Guiyang, China. (invited speaker)
- 49. International Conference on Frontiers of Numerical PDEs, Guangzhou, China, August 2-4, 2011.
- 50. International Symposium on Computational Science, Engineering and Finance, July 28-31, 20
 11, Kunming, Chnia.
- 51. Third Workshop on Recent Advances on Spectral Methods and Related Applications, Shanghai Normal University, Shanghai, China, July 14-17, 2011. (invited speaker)
- 52. International Conference on Interdisciplinary Applied and Computational Mathematics, a minisymposium on discontinuous Galerkin method, June 17-21, 2011, Zhejiang University, Hangzhou, China. (minisymposium invited speaker)
- 53. The 20th International Conference on Domain Decomposition Methods, mini-symposium entitled: "Optimal Solvers from Multi-grid and Two-grid to One-grid and No-Grid", on February 7-11, 2011, UC San Diego, in La Jolla, California, United States.
- 54. Workshop on Computational Mathematics and Scientific Computing, September 9 11, 2010, Institute of Computational Mathematics, Beijing.
- 55. The First Cross-straits Workshop on Computational Mathematics, Xiamen University, China,

Aug. 3-6, 2010. (invited speaker)

- 56. The Workshop on Numerical Methods for PEDs, on July 28th-August 1st, 2010, at Sun Yat-Sen University, Guangzhou. (invited speaker)
- 57. Workshop on Multilevel and Adaptive Methods, Peking University, August 28-30, 2009.
- 58. The 19th International Conference on Domain Decomposition Methods, August 17-22, 2009, Zhangjiajie of China. (Local Organizing Committee)
- 59. 2009 Annual Meeting of Chinese Mathematical Society, April 21-24, 2009, Xiamen University. (invited speaker)
- 60. The third International Conference on Scientific Computing and Partial Differential Equations, Hong Kong Baptist University, 8-12 December 2008. (invited speaker)
- 61. International Workshop on Numerical Analysis and Computational methods for Functional Differential and Integral Equations, Hong Kong Baptist University, Hong Kong, December 3-6, 2007. (invited speaker)
- 62. The second China-Germany workshop on Computational Mathematics, Hangzhou, China, Oct. 9-13, 2007. (invited speaker)
- 63. International Conference on Partial Differential Equations and Their Applications, South China Normal University, Guangzhou, December 27, 2006 January 2, 2007. (invited participator, session chair)
- 64. International Conference on Multilevel Iterative Methods, Beijing University, August 14-18, 2006. (local organizing committee, session chair)
- 65. The 2nd International Conference on Scientific Computing and Partial Differential Equations and The First East Asia SIAM Symposium, Hong Kong Baptist University, 12-16 December 2005. (minisymposium speaker)
- 66. The 8th European Multigrid Conference on Multigrid, Multilevel and Multiscale Methods, Scheveningen The Hague, The Netherlands, September 27-30, 2005.
- 67. The third International Workshop on Meshfree Methods for Partial Differential Equations held at the University Bonn on Sep. 12-15, 2005.
- 68. The first China-Germany workshop on Computational Mathematics on Sep. 5-10, 2005, Berlin, Germany. (invited talk)
- 69. The Eighth U.S. National Congress on Computational Mechanics, July 25-27, 2005, Austin, US. (minisymposium speaker)
- 70. The seventh Japan-China Joint Seminar on Numerical Mathematics, August 16-20, 2004, Zhangjiajie, China. (invited speaker, Local Organizing Committee)
- 71. The conference on "Recent Advances in Adaptive Computation", May 24-28, 2004, Hangzhou, China. (invited speaker)
- 72. The conference on "Superconvergence and A Posteriori Error Estimates in Finite Element Methods", May 31- June 2, 2004, Changsha, China. (invited speaker)
- 73. The third International Congress of Chinese Mathematicians, December 17-22, 2004, HKCU, Hong Kong.
- 74. The CMS Summer 2003 meeting, June 14-16, University of Alberta, Edmonton, Canada. (invited speaker)
- 75. The third International Workshop on Scientific Computing and Applications, January 6-9, 2003, City University of Hong Kong, Hong Kong.
- 76. The sixth Japan-China Joint Seminar on Numerical Mathematics, Aug.5-9, 2002, Tsukuba University, Japan.
- 77. International Conference on Scientific Computing and Partial Differential Equations On the

Occasion of Stanley Osher's 60th birthday. December 12-15, 2002, Lam Woo Conference Center, Hong Kong Baptist University, Hong Kong.

- 78. The second International Symposium on Computing Science, December 20-23, 2002, Guangzhou, School of MCS, Sun Yat-sen Univ., China.
- 79. International Symposium on Computational & Applied PDEs, July 1-7, 2001, Zhangjiajie, China.
- 80. The third International Conference on Numerical Linear Algebra and Optimization, Dunhuang, June, 2001.

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