

## 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  
2013.12.12-2013.12.19 Hong Kong Baptist University  
2013.11.1-2013.11.25 Humboldt-Universität zu 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. National Science Foundation of China (11671157, 2017-2020);
2. National Science Foundation of China (91430104, 2015-2017);
3. National Science Foundation of China (11271145, 2013-2016);
4. National Science Foundation of China (10971074, 2010-2012);
5. National Science Foundation of China (10671163, 2007-2009);
6. National Science Foundation of China (10371104, 2004-2006);
7. National Science Foundation of China (10071065, 2001-2003);
8. The Foundation for High-level Talent Faculty of Guangdong Provincial University (2012-2014);
9. High Capability Scientific Computation, National Basic Research Program (973, under the Grant No. 2005CB321703) ----- group member (2005-2010);
10. Specialized Research Fund for the Doctoral Program of Higher Education (20114407110009, 2012-2014);
11. The Foundation for Talent Introduction of Guangdong Provincial University (2009-2011);
12. Guangdong Province Universities and Colleges Pearl River Scholar Funded Scheme (2008-2012);
13. The Project of Department of Education of Guangdong Province (2012KJ CX0036, 2012-2014);
14. Program for New Century Excellent Talents in University (NCET-04-0776, 2004-2006);
15. Backbone Teachers Foundation of China State Education Ministry (GG-110-10530-1023,

2000-2002);

16. The key project of Hunan Education Commission (06A069, 2007-2009);
17. The key project of China State Education Ministry (204098, 2004-2005);
18. The key project of Hunan Education Commission (03A045, 2003-2004);

#### **Awards and Honor:**

- 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. The International Workshop on PDE-Constrained Optimization, Optimal Control & Applications, December 10-14, 2018, Sanya. (invited speaker)
2. 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)
3. 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)
4. 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)
5. The Workshop on Computational Mathematics, The Hong Kong Polytechnic University, Hong Kong, Dec. 9-12, 2017. (invited speaker)
6. The sixth China-Germany workshop on Computational Mathematics, Tongji University, Shanghai, China, Oct. 9-13, 2017. (invited speaker)
7. The International Workshop on Computational Mathematics and Scientific Computing, June 28-July 2, 2017, Ocean University of China, Qingdao, China. (invited speaker)
8. The International Workshop on Advances in Numerical PDEs and Fast Solvers, December 16-18, 2016, Wuhan University. (Plenary speaker)
9. The 9th National Conference on Finite Element Methods, August 19-22, 2016, Emei Mountain. (Plenary speaker, 40 minutes)
10. The 11th bi-annual Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida, USA on July 1-5, 2016. (invited speaker)

11. The 11th ICOSAHOM - International Conference on Spectral and High-Order Methods, Rio de Janeiro, Brazil from June 27th to July 1st, 2016. (invited speaker)
12. The Workshop on Numerical Methods of Nonlinear Problems at Tsinghua Sanya International Mathematics Forum (TSIMF), January 11-15, 2016. (invited speaker)
13. The fifth workshop in the series on Spectral Methods and Their Applications, October 9-12, 2015, Jiangsu Normal University. (invited speaker)
14. 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)
15. The International Conference on Computational Mathematics and Sciences at Xi'an Jiaotong University, China, June 6-8, 2015. (invited speaker)
16. 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)
17. The Workshop on Recent Advances in Numerical Analysis, November 14-16, 2014, Shanghai Jiao Tong University. (invited speaker)
18. The Third Cross-straits Workshop on Computational Mathematics, Sep. 19-23, 2014, Xiangtan University. (Plenary speaker)
19. 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)
20. The Sino-French conference on Computational and Applied Mathematics, June 2-6, 2014, Xiamen University, Xiamen, China. (invited speaker)
21. The International Workshop on the Finite Element/Spectral Methods, May 16-18, 2014, Shanghai Normal University, Shanghai, China. (invited speaker)
22. The Second International Conference on Engineering and Computational Mathematics (ECM2013), 16-18 December 2013, Hong Kong polytechnic University. (invited speaker)
23. The conference on Numerical Methods and related problems for Optimal Control problems, July 14-17, 2013, Beijing. (invited speaker)
24. The first Chongqing Workshop on Computational and Applied Mathematics, 30 May – 2 June 2013, Chongqing University. (invited speaker)
25. 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)
26. The 8th International Conference on Scientific Computing and Applications, April 1-4, 2012, University of Nevada Las Vegas, Las Vegas. (invited speaker)
27. The fourth International Conference on Scientific Computing and Partial Differential Equations, Hong Kong Baptist University, 5-9 December 2011. (invited speaker, 40 minutes)
28. The fourth China-Germany workshop on Computational Mathematics, South China Normal University, Guangzhou, China, Sep. 26-30, 2011. (invited speaker, 40 minutes)
29. International Conference on Partial Differential Equations & Numerical Analysis, Guiyang, Aug. 22-24, 2011. (invited speaker)
30. Third Workshop on Recent Advances on Spectral Methods and Related Applications, Shanghai Normal University, Shanghai, China, July 14-17, 2011. (invited speaker, 30 minutes)
31. International Conference on Interdisciplinary Applied and Computational Mathematics, June

- 17-21, 2011, Zhejiang University, Hangzhou, China. (invited speaker, 25 minutes)
32. The First Cross-straits Workshop on Computational Mathematics, Aug. 3-6, 2010, Xiamen University. (Plenary speaker)
  33. The Workshop on Numerical Methods for PEDs, on July 28th-August 1st, 2010, at Sun Yat-Sen University, Guangzhou. (invited speaker, 40 minutes)
  34. 2009 annual meeting of Chinese Mathematical Society, April 21-24, 2009, Xiamen University. (invited speaker)
  35. 2009 Annual meeting of Computational Mathematics Society of Guangdong Province, March 21, 2009, South China Agricultural University, Guangzhou. (Plenary speaker, 40 minutes)
  36. The third International Conference on Scientific Computing and Partial Differential Equations, Hong Kong Baptist University, 8-12 December 2008. (40 minutes)
  37. 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)
  38. The second China-Germany workshop on Computational Mathematics on Oct. 9-13, 2007, Zhejiang University, Hangzhou, China. (40 minutes)
  39. The tenth annual meeting on Computational Mathematics of National University, Oct. 17-21, 2005, Dalian University of Technology. (Plenary speaker, 40 minutes)
  40. The first China-Germany workshop on Computational Mathematics on Sep. 5-10, 2005, Humboldt-University, Berlin, Germany. (40 minutes)
  41. The seventh Japan-China Joint Seminar on Numerical Mathematics, August 16-20, 2004, Zhang Jia Jie, China. (one hour)
  42. The conference on "Recent Advances in Adaptive Computation", May 24-28, 2004, Zhejiang University, Hangzhou, China. (half hour)
  43. The conference on "Superconvergence and a posteriori error estimates in finite element methods", May 31- June 2, 2004, Changsha, China. (half hour)
  44. The CMS Summer 2003 meeting, June 14-16, 2003, University of Alberta, Edmonton, Canada. (half hour)

**Publications:**(\* corresponding author)

1. 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*. (accepted, August 7, 2018)
2. Yunxia Wei, Yanping Chen\* and Yunqing Huang, Legendre collocation method for Volterra integro-differential algebraic equation, *Computational Methods in Applied Mathematics*. (accepted, June, 2018)
3. 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*. (accepted, May, 2018)
4. 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*. (accepted, April 2, 2018)
5. 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*, Volume 344, December 2018, pp. 701-715.

6. 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*, Volume 468, Issue 1, December 2018, pp. 406-422.
7. 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.
8. Jianyun Wang and Yanping Chen\*, Superconvergence analysis of bi-k degree rectangular elements for two-dimensional time-dependent Schrodinger equations, *Applied Mathematics and Mechanics*, Volume 39, Issue 9, September 2018, pp. 1353 - 1372.
9. 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, 1 August 2018, pp. 175-189.
10. 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.
11. 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.
12. 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.
13. Haotao Cai and Yanping Chen\*, A fractional order collocation method for second kind Volterra integral equations with weakly singular kernels, *Journal of Scientific Computing*, Volume 75, Issue 2, May 2018, pp. 970-992.
14. Xin Zhao and Yanping Chen\*, Mortar element method for the coupling of Navier-Stokes and Darcy flows, *Advances in Applied Mathematics and Mechanics*, Vol. 10, No. 3, April 2018, pp. 710-734.
15. Zhikun Tian, Yanping Chen\*, and Jianyun Wang, Superconvergence analysis of bilinear finite element for the nonlinear Schrodinger equation on the rectangular mesh, *Advances in Applied Mathematics and Mechanics*, Vol. 10, Issue 2, April 2018, pp. 468-484.
16. Luoping Chen and Yanping Chen\*, A novel discretization method for semilinear reaction-diffusion equation, *Advances in Applied Mathematics and Mechanics*, Vol. 10, No. 2, April 2018, 375-389.
17. Luoping Chen, Yanping Chen\*, and Xiong Liu, A two level sparse grid collocation method for semilinear stochastic elliptic equations, *Computational Method in Applied Mathematics*, Vol. 18, Issue 2, April 2018, pp. 165-179.
18. Haitao Leng and Yanping Chen\*, Convergence and quasi-optimality of an adaptive finite element method for optimal control problems with integral control constraint, *Advances in Computational Mathematics*, Vol. 44, Issue 2, April 2018, pp. 367-394.
19. Chuanjun Chen, Yanping Chen\*, and Xin Zhao, A posteriori error estimates of two-grid finite volume element methods for nonlinear elliptic problems, *Computers and Mathematics with Applications*, Vol. 75, Issue 5, March 2018, pp. 1756-1766.
20. Yunxia Wei, Yanping Chen\*, and Xiulian Shi, A spectral collocation method for multidimensional nonlinear weakly singular Volterra integral equation, *Journal of Computational and Applied Mathematics*, Vol. 331, No. 15, March 2018, pp. 52-63.

21. Xiong Liu and Yanping Chen\*, Convergence analysis for the Chebyshev collocation methods to Volterra integral equations with a weakly singular kernel, *Advances in Applied Mathematics and Mechanics*, Vol. 9, No. 6, December 2017 pp. 1506-1524.
22. Haitao Leng and Yanping Chen\*, Convergence and quasi-optimality of an adaptive finite element method for optimal control problems on  $L^2$  errors, *Journal of Scientific Computing*, Vol. 73, Issue 1, October 2017, pp 438–458.
23. Keyan Wang and Yanping Chen\*, Two-grid mixed finite element method for nonlinear hyperbolic equations, *Computers & Mathematics with Applications*, Vol. 74, Issue 6, 15 September 2017, pp. 1489-1505.
24. Yanping Chen and Fenglin Huang, Spectral method approximation of flow optimal control problems with  $H^1$ -norm state constraint, *Numerical Mathematics: Theory, Methods and Applications*, Vol. 10, Issue 3, August 2017, pp. 614-638.
25. Yunxia Wei and Yanping Chen\*, Legendre spectral collocation method for Volterra-Hammerstein integral equation of the second kind, *Acta Mathematica Scientia*, Vol. 37, Issue 4, July 2017, pp. 1105-1114.
26. Shang Liu and Yanping Chen\*, A new two-grid method for expanded mixed finite element solution of nonlinear reaction diffusion equations, *Advances in Applied Mathematics and Mechanics*, Vol. 9, No. 3, June 2017, pp. 757-774.
27. Yin Yang, Yanping Chen, Yunqing Huang, and Huayi Wei, Spectral collocation method for the time-fractional diffusion-wave equation and convergence analysis, *Computers and Mathematics with Applications*, Vol. 73, Issue 6, 15 March 2017, pp. 1218-1232.
28. Libin Liu and Yanping Chen\*, A-posteriori error estimation in maximum norm for a strongly coupled system of two singularly perturbed convection-diffusion problems, *Journal of Computational and Applied Mathematics*, Vol. 313, March 2017, pp. 152–167.
29. 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*, March 2017, DOI 10.1007/s40840-017-0487-7.
30. Yunxia Wei, Yanping Chen, Xiulian Shi, and Yuanyuan Zhang, Jacobi spectral collocation method for the approximate solution of multidimensional nonlinear Volterra integral equation, *SpringerPlus*, (2016) 5:1710. DOI 10.1186/s40064-016-3358-z
31. Hanzhang Hu, Yanping Chen\*, and Jie Zhou, Two-grid method for miscible displacement problem by mixed finite element methods and finite element method of characteristics, *Computers and Mathematics with Applications*, Vol. 72, Issue 11, December 2016, pp. 2694–2715.
32. Yanping Chen and Libin Liu, An adaptive grid method for singularly perturbed time-dependent convection-diffusion problems, *Communications in Computational Physics*, Vol. 20, No. 5, November 2016, pp. 1340-1358.
33. Yanping Chen and Hanzhang Hu, Two-grid method for miscible displacement problem by mixed finite element methods and mixed finite element method of characteristics, *Communications in Computational Physics*, Vol. 19, No. 5, May 2016, pp. 1503-1528.
34. Yanping Chen and Keyan Wang, Two-Grid scheme for the mixed finite element approximations of nonlinear hyperbolic equations, *Journal of South China Normal University (Natural Science Edition)*, Vol. 48, No. 3, 2016, pp. 1-6. (in Chinese)

35. Yanping Chen and Fenglin Huang, A new error estimates for elliptic optimal control problems with control and state constraints, *Journal of South China Normal University (Natural Science Edition)*, Vol. 48, No. 5, 2016, pp. 86-91. (in Chinese)
36. Yanping Chen, Jiaoyan Zeng, and Jie Zhou,  $L^p$  error estimates of two-grid method for miscible displacement problem, *Journal of Scientific Computing*, Vol. 69, Issue 1, 2016, pp. 28-51.
37. Hanzhang Hu and Yanping Chen\*, A conservative difference scheme for two-dimensional nonlinear Schrödinger equation with wave operator, *Numerical Methods for Partial Differential Equations*, Vol. 32, Issue 3, 2016, pp. 862-876.
38. Yanping Chen and Fenglin Huang, Galerkin spectral approximation of elliptic optimal control problems with  $H^1$ -norm state constraint, *Journal of Scientific Computing*, Vol. 67, 2016, pp. 65-83.
39. Xiulian Shi and Yanping Chen\*, Spectral-collocation method for Volterra delay integro-differential equations with weakly singular kernels, *Advances in Applied Mathematics and Mechanics*, Vol. 8, No. 4, 2016, pp. 648-669.
40. Fenglin Huang, Yanping Chen\*, and Xiulian Shi, Equivalent a posteriori error estimator of spectral approximation for control problems with integral control-state constraints in one dimension, *Advances in Applied Mathematics and Mechanics*, Vol. 8, No. 3, 2016, pp. 464-484.
41. Chunjuan Hou, Yanping Chen, and Zuliang Lu, A posteriori error estimates of mixed finite element solutions for fourth order parabolic control problems, *Journal of Inequalities and Applications*, December 2015, 2015:240. DOI: 10.1186/s13660-015-0762-9
42. Yanping Chen and Zuliang Lu, High Efficient and Accuracy Numerical Methods for Optimal Control Problems, *Series in Information and Computational Science 72*, Published by Science Press, November, 2015.
43. Yanping Chen, Zuliang Lu, and Libin Liu, Numerical solution for Partial Differential Equations, *Series in Information and Computational Science 67*, Published by Science Press, January, 2015.
44. Yanping Chen, Yunqing Huang, Wenbin Liu, and Ningning Yan, A mixed multiscale finite element method for convex optimal control problems with oscillating coefficients, *Computers and Mathematics with Applications*, Vol. 70, Issue 4, August 2015, pp. 297-313.
45. Zhendong Gu and Yanping Chen\*, Piecewise Legendre spectral-collocation method for Volterra integro-differential equations, *LMS Journal of Computation and Mathematics*, Vol. 18, No. 1, 2015, pp. 231-249.
46. Jianwei Zhou and Yanping Chen\*, Error estimates of spectral Legendre-Galerkin methods for the fourth-order equation in one dimension, *Applied Mathematics and Computation*, Vol. 268, No. 1, 2015, pp. 1217-1226.
47. Tianliang Hou and Yanping Chen\*, Superconvergence of fully discrete rectangular mixed finite element methods of parabolic control problems, *Journal of Computational and Applied Mathematics*, Vol. 286, 2015, pp. 79-92.
48. Yanping Chen and Zhuoqing Lin, A posteriori error estimates of semidiscrete mixed finite element methods for parabolic optimal control problems, *East Asian Journal on Applied Mathematics*, Vol. 5, No. 1, 2015, pp. 85-108.
49. Yanping Chen\*, Haitao Leng, and Libin Liu, Error analysis for a non-monotone FEM for a singularly perturbed problem with two Small parameters, *Adv. Appl. Math. Mech.*, Vol. 7, No. 2, 2015, pp. 196-206.

50. Tianliang Hou and Yanping Chen\*, Mixed discontinuous Galerkin time-stepping method for linear parabolic optimal control problems, *Journal of Computational Mathematics*, Vol. 33, No. 2, 2015, 158-178.
51. Yin Yang, Yanping Chen\*, and Yunqing Huang, Wei Yang, Convergence analysis of Legendre-collocation methods for nonlinear Volterra type integro-equations, *Advances in Applied Mathematics and Mechanics*, Vol. 7, No. 1, 2015, pp. 74-88.
52. Libin Liu and Yanping Chen\*, An adaptive moving grid method for a system of singularly perturbed initial value problems, *Journal of Computational and Applied Mathematics*, Vol. 274, 2015, pp. 11-22.
53. Fenglin Huang and Yanping Chen\*, Error estimates for spectral approximation of elliptic control problems with integral state and control constraints, *Computers and Mathematics with Applications*, Vol. 68, No. 8, 2014, pp. 789-803.
54. Libin Liu and Yanping Chen\*, A robust adaptive grid method for a system of two singularly perturbed convection-diffusion equations with weak coupling, *Journal of Scientific Computing*, Vol. 61, No. 1, 2014, pp. 1-16.
55. Yanping Chen and Chunmei Sun, Error estimates and superconvergence of mixed finite element methods for fourth order hyperbolic control problems, *Applied Mathematics and Computation*. 244 (2014), pp. 642-653.
56. Yin Yang, Yanping Chen, and Yunqing Huang, Spectral-collocation method for fractional Fredholm integro-differential equations, *J. Korean Math. Soc.* 51 (2014), No. 1, pp. 203-224.
57. Xianbing Luo, Yanping Chen\*, Yunqing Huang, and Tianliang Hou, Some error estimates of finite volume element method for parabolic optimal control problems, *Optimal Control Applications and Methods*, Volume 35, Issue 2, pp. 145–165, March/April 2014.
58. Yin Yang, Yanping Chen\*, and Yunqing Huang, Convergence analysis of the Jacobi spectral-collocation method for fractional integro-differential equations, *Acta Mathematica Scientia*, 2014, 34B (3): 673–690.
59. Yanping Chen and Yijie Lin, A posteriori error estimates for control problems governed by nonlinear elliptic equations in hp-FEM, *Applied Mathematics and Computation*, 238 (2014) 163–176.
60. Luoping Chen and Yanping Chen\*, Two-grid discretization scheme for nonlinear reaction diffusion equations by mixed finite element methods, *Advances in Applied Mathematics and Mechanics*, Vol. 6, No. 2, April 2014, pp. 203-219.
61. Zhiguang Xiong and Yanping Chen\*, A triangular finite volume element method for a semilinear elliptic equation, *Journal of Computational Mathematics*, Vol. 32, No. 2, 2014, 152–168.
62. Yunxia Wei and Yanping Chen\*, Legendre spectral collocation method for neutral and high-order Volterra integro-differential equation, *Applied Numerical Mathematics*, 81 (2014), 15–29.
63. Zhendong Gu and Yanping Chen\*, Legendre spectral-collocation method for Volterra integral equations with non-vanishing delay, *Calcolo*, Volume 51, Issue 1, March 2014, pp. 151–174.
64. Fang Wang, Yanping Chen\*, and Yuelong Tang, Superconvergence of fully discrete splitting positive definite mixed FEM for hyperbolic equations, *Numerical Methods for Partial Differential Equations*, Vol. 30, Issue 1, January 2014, pp. 175–186.
65. Libin Liu and Yanping Chen\*, Maximum norm a posteriori error estimates for a singularly perturbed differential difference equation with small delay, *Applied Mathematics and Computation*, Vol. 227, 15 January 2014, pp. 801–810.

66. Yongquan Dai and Yanping Chen\*, Superconvergence for general convex optimal control problems governed by semilinear parabolic equations, *ISRN Applied Mathematics*, Volume 2014 (2014), pp. 1-12.
67. Yanping Chen, Tianliang Hou, and Nianyu Yi, Variational discretization for optimal control problems governed by parabolic equations, *Journal of Systems Science and Complexity*, Vol. 26, No. 6, December 2013, pp 902-924.
68. Yanping Chen and Zhendong Gu, Legendre spectral-collocation method for Volterra integral differential equations with non-vanishing delay, *Communications in Applied Mathematics and Computational Science*, Vol. 8, No. 1, December 2013, pp. 67-98.
69. Yanping Chen and Tianliang Hou, Error estimates and superconvergence of RT0 mixed methods for a class of semilinear elliptic optimal control problems, *Numerical Mathematics Theory, Methods and Applications*, Vol. 6, No. 4, November 2013, pp. 637-656.
70. Yanping Chen\* and Libin Liu, An adaptive moving grid method for a singularly perturbed convection-diffusion problem, *Journal of South China Normal University (Natural Science Edition)*, Vol. 45, No. 6, November 2013, pp. 1-5. (in Chinese)
71. Yuelong Tang and Yanping Chen\*, Superconvergence of finite element methods for optimal control problems governed by parabolic equations with time-dependent coefficients, *East Asian Journal on Applied Mathematics*, Vol. 3, No. 3, August 2013, pp. 209-227.
72. Yanping Chen, Zuliang Lu, and Yunqing Huang, Superconvergence of triangular Raviart-Thomas mixed finite element methods for bilinear constrained optimal control problem, *Computers and Mathematics with Applications*, Vol. 66, Issue 8, 2013, pp. 1498-1513.
73. Jiming Yang, Yanping Chen, and Zhiguang Xiong, Superconvergence of a full-discrete combined mixed finite element and discontinuous Galerkin method for a compressible miscible displacement problem, *Numerical Methods for Partial Differential Equations*, Vol. 29, Issue 6, 2013, pp. 1801–1820.
74. Xianbing Luo, Yanping Chen\*, and Yunqing Huang, A priori error estimates of Crank-Nicolson finite volume element method for parabolic optimal control problems, *Advances in Applied Mathematics and Mechanics*, Vol. 5, No. 5, 2013, pp. 688-704.
75. Xianbing Luo, Yanping Chen\*, and Yunqing Huang, Some error estimates of finite volume element approximation for elliptic optimal control problems, *International Journal of Numerical Analysis and Modeling*, Vol. 10, No. 3, 2013, pp. 697–711.
76. Zhendong Gu and Yanping Chen\*, Chebyshev spectral-collocation method for Volterra integral equations, *Contemporary Mathematics*, Volume 586, 2013, pp. 163-170.
77. Yanping Chen, Luoping Chen, and Xiaochun Zhang, Two-grid method for nonlinear parabolic equations by expanded mixed finite element methods, *Numerical Methods for Partial Differential Equations*, Vol. 29, Issue 4, 2013, pp. 1238–1256.
78. Tianliang Hou and Yanping Chen\*, Superconvergence for elliptic optimal control problems discretized by RT1 mixed finite elements and linear discontinuous elements, *Journal of Industrial and Management Optimization*, Vol. 9, No. 3, 2013, pp. 631-642.
79. Yunxia Wei and Yanping Chen\*, A spectral method for neutral Volterra integro-differential equation with weakly singular kernel, *Numerical Mathematics: Theory, Methods and Applications*, Vol. 6, No. 2, 2013, pp. 424-446.
80. Xianbing Luo, Yanping Chen\*, and Yunqing Huang, A priori error estimates of finite volume element method for hyperbolic optimal control problems, *Science in China Series A: Mathematics*, Vol. 5 No. 56, 2013, pp. 901–914.

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#### **Conference:**

1. The International Workshop on PDE-Constrained Optimization, Optimal Control & Applications, December 10-14, 2018, Sanya. (invited speaker)
2. 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)
3. 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)
4. 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)

5. The Workshop on Computational Mathematics, The Hong Kong Polytechnic University, Hong Kong, Dec. 9-12, 2017. (invited speaker)
6. IAS Focused Program on Scientific Computing, The Hong Kong University of Science and Technology, Hong Kong, Dec. 4-8, 2017.
7. The sixth China-Germany workshop on Computational Mathematics, Tongji University, Shanghai, China, Oct. 9-13, 2017. (invited speaker)
8. The International Workshop on Computational Mathematics and Scientific Computing, June 28 - July 2, 2017, Ocean University of China, Qingdao, China. (invited speaker)
9. The 10th International Conference on Computational Physics (ICCP10), session on High-Order Methods and Their Applications in Computational Physics, Cotai District, Macao SAR, China, January 16-20, 2017.
10. The International Workshop on Advances in Numerical PDEs and Fast Solvers, December 16-18, 2016, Wuhan University. (Plenary speaker)
11. The 20th IMACS World Congress, mini-symposium on Integral Equations/ Spectral methods", December 10-14, 2016, Xiamen, China. (mini-symposium organizer)
12. The Workshop on "Mathematical Analysis of Metamaterials and Applications", Tsinghua Sanya International Mathematics Forum (TSIMF), December 5-9, 2016, Sanya.
13. The 11th bi-annual Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida, USA on July 1-5, 2016. (invited speaker)
14. The 11th ICOSAHOM - International Conference on Spectral and High-Order Methods, Rio de Janeiro, Brazil from June 27th to July 1st, 2016. (invited speaker)
15. The 10th international conference on scientific computing and applications (ICSCA2016), at the Fields Institute, Toronto, Canada, June 6 - 10, 2016. (invited speaker)
16. The Workshop on Numerical Methods of Nonlinear Problems at Tsinghua Sanya International Mathematics Forum (TSIMF), January 11-15, 2016. (invited)
17. The fifth workshop in the series on Spectral Methods and Their Applications, October 9-12, 2015, Jiangsu Normal University. (invited speaker)
18. The Satellite Meeting of ICIAM 2015, Recent Developments in Computational Mathematics and Applications, Jinggangshan, China, August 3-8, 2015.
19. The International Conference on Computational Mathematics and Sciences at Xi'an Jiaotong University, China, June 6-8, 2015. (invited speaker)
20. The 5th International Conference on Scientific Computing and Partial Differential Equations (SCPDE14) On the Occasion of Eitan Tadmor's 60th Birthday, minisymposium on High Order Numerical Methods for Integral Equations, Hong Kong Baptist University, 8-12 December 2014. (minisymposium organizer, invited speaker)
21. The Workshop on 'Recent Advances in Numerical Analysis', November 14-16, Shanghai Jiao Tong University. (invited speaker)
22. 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)
23. The Sino-French conference on Computational and Applied Mathematics, June 2-6, 2014, Xiamen University, Xiamen, China. (invited speaker)
24. The International Workshop on the Finite Element/Spectral Methods, May 16-18, 2014, Shanghai Normal University, Shanghai, China. (invited speaker)
25. The Second International Conference on Engineering and Computational Mathematics, 16-18

- December 2013, Hong Kong polytechnic University. (invited speaker)
26. Fourth Workshop on Recent Advances on Spectral Methods and Related Applications, November 2-4, 2013, Xiamen University, China
  27. The conference on Numerical Methods and related problems for Optimal Control problems, July 14-17, 2013, Beijing. (invited speaker)
  28. The 1st Chongqing Workshop on Computational and Applied Mathematics, 30 May – 2 June 2013, Chongqing University. (invited speaker)
  29. 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)
  30. The 8th International Conference on Scientific Computing and Applications, April 1-4, 2012, University of Nevada Las Vegas, Las Vegas. (invited speaker)
  31. The fourth International Conference on Scientific Computing and Partial Differential Equations, Hong Kong Baptist University, 5-9 December 2011. (invited speaker)
  32. The fourth China-Germany workshop on Computational Mathematics, South China Normal University, Guangzhou, China, Sep. 26-30, 2011. (invited speaker, Local Organizing Committee)
  33. International Conference on Partial Differential Equations & Numerical Analysis, Aug. 22-24, 2011, Guiyang, China. (invited speaker)
  34. International Conference on Frontiers of Numerical PDEs, Guangzhou, China, August 2-4, 2011.
  35. International Symposium on Computational Science, Engineering and Finance, July 28—31, 2011, Kunming, China.
  36. Third Workshop on Recent Advances on Spectral Methods and Related Applications, Shanghai Normal University, Shanghai, China, July 14-17, 2011. (invited speaker)
  37. 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)
  38. 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.
  39. Workshop on Computational Mathematics and Scientific Computing, September 9 - 11, 2010, Institute of Computational Mathematics, Beijing.
  40. The First Cross-straits Workshop on Computational Mathematics, Xiamen University, China, Aug. 3-6, 2010. (invited speaker)
  41. The Workshop on Numerical Methods for PDEs, on July 28th-August 1st, 2010, at Sun Yat-Sen University, Guangzhou. (invited speaker)
  42. Workshop on Multilevel and Adaptive Methods, Peking University, August 28-30, 2009.
  43. The 19th International Conference on Domain Decomposition Methods, August 17-22, 2009, Zhangjiajie of China. (Local Organizing Committee)
  44. 2009 Annual Meeting of Chinese Mathematical Society, April 21-24, 2009, Xiamen University. (invited speaker)
  45. The third International Conference on Scientific Computing and Partial Differential Equations, Hong Kong Baptist University, 8-12 December 2008. (invited speaker)
  46. 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)

47. The second China-Germany workshop on Computational Mathematics, Hangzhou, China, Oct. 9-13, 2007. (invited speaker)
48. International Conference on Partial Differential Equations and Their Applications, South China Normal University, Guangzhou, December 27, 2006 – January 2, 2007. (invited participator, session chair)
49. International Conference on Multilevel Iterative Methods, Beijing University, August 14-18, 2006. (local organizing committee, session chair)
50. 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)
51. The 8th European Multigrid Conference on Multigrid, Multilevel and Multiscale Methods, Scheveningen The Hague, The Netherlands, September 27-30, 2005.
52. The third International Workshop on Meshfree Methods for Partial Differential Equations held at the University Bonn on Sep. 12-15, 2005.
53. The first China-Germany workshop on Computational Mathematics on Sep. 5-10, 2005, Berlin, Germany. (invited talk)
54. The Eighth U.S. National Congress on Computational Mechanics, July 25-27, 2005, Austin, US. (minisymposium speaker)
55. The seventh Japan-China Joint Seminar on Numerical Mathematics, August 16-20, 2004, Zhangjiajie, China. (invited speaker, Local Organizing Committee)
56. The conference on “Recent Advances in Adaptive Computation”, May 24-28, 2004, Hangzhou, China. (invited speaker)
57. The conference on “Superconvergence and A Posteriori Error Estimates in Finite Element Methods”, May 31- June 2, 2004, Changsha, China. (invited speaker)
58. The third International Congress of Chinese Mathematicians, December 17-22, 2004, HKCU, Hong Kong.
59. The CMS Summer 2003 meeting, June 14-16, University of Alberta, Edmonton, Canada. (invited speaker)
60. The third International Workshop on Scientific Computing and Applications, January 6-9, 2003, City University of Hong Kong, Hong Kong.
61. The sixth Japan-China Joint Seminar on Numerical Mathematics, Aug.5-9, 2002, Tsukuba University, Japan.
62. 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.
63. The second International Symposium on Computing Science, December 20-23, 2002, Guangzhou, School of MCS, Sun Yat-sen Univ., China.
64. International Symposium on Computational & Applied PDEs, July 1-7, 2001, Zhang JiaJie, China.
65. The third International Conference on Numerical Linear Algebra and Optimization, Dunhuang, June, 2001.

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