QIN SHENG

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I. Education

02/1990, Ph.D. in Mathematics, University of Cambridge, UK (*advisor: Professor Arieh Iserles*)
12/1984, M.S. in Mathematics, Nanjing University, China
12/1982, B.S. in Mathematics, Nanjing University, China

II. Academic Positions Held

08/2015-12/2015, Visiting Professor, Hong Kong Baptist University, Hong Kong
11/2009-12/2009, Visiting Professor, National Center for Theoretical Sciences, NTHU, Taiwan
03/2007-05/2007, Visiting Professor, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
2005-Present, Professor, Baylor University, USA
2001-2005, Associate Professor, University of Dayton, USA
1996-2001, Assistant/Associate Professor, University of Louisiana in Lafayette, USA
1990-1995, Assistant Professor, National University of Singapore, Singapore
1989-1990, Research Associate, University College London, UK (*supervisor: Professor Frank T. Smith, FRS*)

III. Major Editorial/Service Positions

1. Editor-in-Chief (since 2010), *International Journal of Computer Mathematics,* Taylor & Francis
2. Guest Editors of several Special Research Issues for Taylor & Francis, Elsevier and Dynamic Publisher
3. Reviewer for the *Math Review* (since 2003), American Mathematical Society
4. Panelist (since 2014), National Science Foundation, USA

IV. Selected Recent Peer-Reviewed Publications in Print (total publications over 110)

1. Q. Sheng, ADI Methods, *Encyclopedia of Applied and Computational Mathematics,* Editor-in-Chief: Bjorn Engquist, Springer Verlag GmbH, Heidelberg, 2015
2. Q. Sheng (with T. Zhu, A. Wang, G. Cleaver, K. Kirsten and Q. Wu), Scalar and tensor perturbations in loop quantum cosmology: high-order corrections, *J. Cosmology Astroparticle Phys*, **10** (2015), 1-39
3. Q. Sheng, ADI, LOD and modern decomposition methods for certain multiphysics applications, *J. Algorithms Comput. Tech.*, **9** (2015), 105-120
4. Q. Sheng (with D. Ding and Q.-J. Meng), Preconditioning iterative methods for fractional diffusion models in finance, *Numer. Meth. PDEs*., **31** (2015), 1382-1395
5. Q. Sheng (with T. Jones, L. P. Gonzalez and S. Guha), A continuing exploration of a decomposed compact method for highly oscillatory wave problems, *J. Comp. Appl. Math*., **299** (2016), 207-220
6. Q. Sheng (with T. Zhu, A. Wang, G. Cleaver and K. Kirsten), Constructing analytical solutions of linear perturbations of inflation with modified dispersion relations, *Intern. J. Modern Phys. A*, 2016, in press
7. Q. Sheng (with H. Sun), Stability of a modified Peaceman-Rachford method for the paraxial Helmholtz equation on adaptive grids, *J. Comp. Phys*., 2016, in press
8. Q. Sheng (with J. Padgett), Solving the degenerate Kawarada equation via an adaptive LOD method over nonuniform spatial grids, *J. Math. Anal. Appl.*, **439** (2016), 465-480
9. Q. Sheng (with H. Li and Y. Wang), An energy-preserving Crank–Nicolson Galerkin method for Hamiltonian partial differential equations, *Numer. Meth. PDEs*, **32** (2016), 1485-1504

V. Recent Keynote Presentations

1. Modern ADI, LOD and adaptive decomposition algorithms for highly effective and efficient computations, *DCABES 2013*, *London Mathematical Society Applied Symposium,* London, UK, September 2-4, 2013
2. Splitting methods for solving highly oscillatory PDEs via semidiscretizations, *4th ICNADE*, Nanjing, China, May 8-10, 2014
3. Endeavors, challenges and recent multi-physics applications of the exponential splitting methods, *ICCMMSE'15,* Rota, Cadiz, Spain, July 6-10, 2015
4. The legacy of ADI and LOD splitting and their applications for the numerical solution of highly oscillatory partial differential equations, *M3HPCST-2015*, Delhi, India, December 27-29, 2015