

## BIOGRAPHICAL SKETCH

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#### Education:

Shandong University, China	Mathematics	B.S.	1982
Shandong University, China	Mathematics	M.S.	1984
University of Wyoming	Mathematics	Ph.D.	1992
Texas A&M University	Postdoctoral Associate	1992 –	1993

#### Professional Experience:

2003 — present	Professor,	University of South Carolina
1998 — 2003	Associate Professor,	University of South Carolina
1993 — 1998	Assistant Professor,	University of South Carolina

#### Research Publications:

Total number of refereed publications: 112; 5 additional in press

#### Five Closely Related Publications:

1. H. Wang, K. Wang, and T. Sircar, A direct  $O(N \log^2 N)$  finite difference method for fractional diffusion equations, *J. Comput. Phys.*, 229:8095-8104, 2010.
2. H. Wang and K. Wang, An  $O(N \log^2 N)$  alternating-direction finite difference method for two-dimensional fractional diffusion equations, *J. Comput. Phys.*, 230:7830-7839, 2011.
3. K. Wang and H. Wang, A fast characteristic finite difference method for fractional advection-diffusion equations, *Advances in Water Resources*, 34:810–816, 2011.
4. H. Wang and T.S. Basu, A fast finite difference method for two-dimensional space-fractional diffusion equations, *SIAM J. Sci. Comput.*, 34:A2444–A2458, 2012.
5. H. Wang and H. Tian, A fast Galerkin method with efficient matrix assembly and storage for a peridynamic model, *J. Comput. Phys.*, 231:7730–7738, 2012.

#### Selected Publications:

1. H. Wang, An optimal-order error estimate for a family of ELLAM-MFEM approximations to porous medium flow, *SIAM J. Numer. Anal.*, 46:2133–2152, 2008.
2. H. Wang and K. Wang, Uniform estimates of Eulerian-Lagrangian methods for transient convection-diffusion equations in multiple space dimensions, *SIAM J. Numer. Anal.*, 48:1444-1473, 2010.
3. K. Wang and H. Wang, An optimal-order error estimate to ELLAM schemes for transient advection-diffusion equations on unstructured meshes, *SIAM J. Numer. Anal.*, 48:681-707, 2010.
4. K. Wang, H. Wang, S. Sun, and M.F. Wheeler, An optimal-order  $L^2$ -error estimate for nonsymmetric discontinuous Galerkin methods for a diffusion equation in multiple space dimensions, *Comput. Methods in Applied Mechanical Engineering*, 198:2190-2197, 2009
5. H. Wang, R.E. Ewing, G. Qin, and S.L. Lyons, An Eulerian-Lagrangian formulation for compositional flow in porous media, The 2006 Society of Petroleum Engineering Annual Technical Conference in San Antonio, *SPE - 102512*, Sept 24–27, 2006.

**Member, Editorial Boards:**

- Numerical Methods for Partial Differential Equations, 2000-present
- Journal of Korean SIAM, 2001-present
- Computing and Visualization in Science, 2004-present
- International Journal of Numerical Analysis & Modeling, 2007-present
- The Modeling and Computation for Flow and Transport, 2010-present