CURRICULUM VITAE

Yimin Zhong

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Research Interests

Numerical Analysis: Fast Algorithm, Numerical Optimization, Low Rank Approximation

Inverse Problems and Imaging: Hybrid Multi-physics Inverse Problems including PAT, TAT, UMOT; Control Theory for Hybrid Multi-physics system.

Education

2011 – current	Ph.D. Candidate, Department of Mathematics, University of Texas at Austin Expected by 2017, May. Advisor: Kui Ren
2007 – 2011	B.S. University of Science and Technology of China, P.R.China

Teaching Experiences

Teaching assistant for graduate courses

2015 Spring	*M387D: Numerical Analysis: Differential Equations*
2014 Fall	*M387C: Numerical Analysis: Algebra & Approximation*
2013 Fall	*M387C: Numerical Analysis: Algebra & Approximation*

Teaching assistant for undergraduate courses

2016 Fall	*M427L: Advanced Calculus for Application II*
2015 Fall	*M408C: Differential and Integral Calculus*
2014 Spring	*M427L: Advanced Calculus for Application II*
2013 Summer	*M F316: Elementary Statistical Methods*
2013 Summer	*M F325K: Discrete Mathematics*
2013 Spring	*M408L: Integral Calculus*
2012 Fall	*M408C: Differential and Integral Calculus*

Publications and Preprints

1. K. Ren, R. Zhang and Y. Zhong, *Inverse transport problems in quantitative PAT for molecular imaging*, Inverse Problems, 31, 125012, 2015
2. K. Ren and Y. Zhong, *Reconstruction of acoustic and optical properties in PAT/TAT with data from multiple illuminations*, Preprint, 2016
3. K. Ren, R. Zhang and Y. Zhong, *A FMM-based algorithm for radiative transport in isotropic media*, submitted, 2016
4. K. Ren and Y. Zhong, *Recovering point sources in unknown inhomogeneous environments*, In preparation, 2016

Invited Presentations

May 2016, SIAM Conference on Imaging Science, *Inverse transport problems in quantitative PAT for molecular imaging*, Albuquerque. NM.

February 2016, Numerical Analysis Seminar, *Existence and stability estimate of H^1_p solution of radiative transport system*, University of Texas, Austin, TX.

December 2015, Numerical Analysis Seminar, *Inverse transport problems in quantitative PAT for molecular imaging*, University of Science and Technology of China, Hefei, China.

February 2013, Schlumberger Applied Mathematics Webinar, *Recovering Point Sources in Unknown Environment with Differential Data*, Houston, TX.

Oct 2012, Workshop on Inverse Problems, *Inverse Problems for Maxwell's Equation in isotropic media*, Texas A & M University, College Station, TX.

Awards and Honors

2016 *SIAM Student Travel Award*

2013 *Frank Gerth III Graduate Excellence Award*

2011 *First Prize of Computational Mathematics Summer Camp at Chinese Academy of Science*

2011 *First Prize of Contest of Mathematics of Undergraduate of China*

Professional Services

Review for *SIAM Journal on Imaging Science*.

Miscellaneous Academic Activities

April 2016, Talk in Junior Numerical Analysis Seminar at UT Austin: *One step reconstruction of acoustic and optical properties in PAT*.

February 2016, Participate in KI-Net conference on *Advances in kinetic and fluid dynamics transport: Analysis and approximations*

October 2015, Participate in conference on *Numerical and Multiscale Issues for Partial and Integral Differential Equations* (in honor of Björn Engquist's 70th birthday).

May 2015, Talk in Junior Numerical Analysis Seminar at UT Austin: *Uniqueness and Stability in BLT*

March 2014, Participate in Texas Consortium for Computational Seismology Tenth Bi-Annual Research Meeting at Houston

July 2013, Participate in the MSRI Graduate Summer School on: *Introduction to the Mathematics of Seismic Imaging*.

April 2013, Talk in Junior Numerical Analysis Seminar at UT Austin: *Solvability of degenerate elliptic problem in 2D*.

March 2013, Talk in Junior Numerical Analysis Seminar at UT Austin: *Stability of inverse source problem*.

Programming Skills

C++/C, Python, Java, Julia, MATLAB, Fortran