

CURRICULUM VITAE

YILUN WANG

ADDRESS

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EDUCATION

- 2005–2009 *Rice University, Houston, TEXAS*
Ph. D. in Computational and Applied Mathematics, 2009
Dissertation: “Enhanced Compressed Sensing using Iterative Support Detection.”
M.A. in Computational and Applied Mathematics, 2008
- 2002–2005 *Fudan University, Shanghai, China*
M.S. in Computational Mathematics, 2002
- 1998–2002 *Dalian University of Technology, Dalian, Liaoning, China*
B.S. in Computational Mathematics, 2002
Minor in Computer Science, 2001

RESEARCH INTERESTS

Fast Optimization Algorithm and Statistical Inference for Inverse Problems with Applications in Compressive Sensing, Imaging Sciences and Parameter Calibration.

WORKING EXPERIENCE

- 08/2009–current *Cornell University, Ithaca, NY, USA*
Position: Postdoctoral Researcher in School of Civil and Environmental Engineering and School of Operations Research Information Engineering
- Parameter Calibration, Uncertainty and Sensitivity Analysis for Computationally Expensive Inverse Problems.
- 05/2008–08/2008 *Shell Oil Company, Houston, TX, USA*
Position: Intern Geophysicist
- Developed curvelet transform (higher dimensional generalization of the wavelet transform) based algorithms for seismic data denoising and imaging.

10/2004–06/2005 *SIGRITY Inc*, Shanghai, China.
Position: Part-time Researcher

- Invented and implemented real-time algorithms for large scale structured eigenvalue problems arising from circuit simulation in C++.

RESEARCH PAPERS

1. Y. Wang and W. Yin. *Enhanced Compressed Sensing using Iterative Support Detection*, Technique Report TR09-30, CAAM, Rice University, 2009. Submitted to SIAM journal on Imaging Sciences.
2. J. Yang, W. Yin, Y. Zhang and Y. Wang. *A Fast Algorithm For Variational Multichannel Image Restoration*. SIAM journal on Imaging Sciences, Vol. 2, No. 2, pp. 569-592, 2009
3. Y. Wang, J. Yang, W. Yin and Y. Zhang. *A New Alternating Minimization Algorithm for Total Variation Image Reconstruction*. SIAM journal on Imaging Sciences, Vol. 1, No. 3, pp. 248-272, 2008.
4. J. Yang, W. Yin, Y. Zhang and Y. Wang. *A Class of Fast Algorithms for Total Variation Image Restoration*. Connexions. December 26, 2008. <http://cnx.org/content/m19059/1.2/>.
5. W. Yang, H. Cai, K. Li and Y. Wang. *The Interpretation of Yield Curve Shifts in Shanghai Stock Exchange*. Commercial Times (In Chinese), Vol.36, 2005.

SOFTWARE PUBLICATIONS

1. Y. Wang and W. Yin. *ISD: A New Compressed Sensing Algorithm via Iterative Support Detection* <http://www.caam.rice.edu/~optimization/L1/ISD/>, 2009.
2. Y. Wang, J. Yang, W. Yin, and Y. Zhang. *FTVd: A fast algorithm for image deblurring and denoising with total variation regularization*. <http://www.caam.rice.edu/~optimization/L1/>, 2008.

PRESENTATIONS

- 04/12/2010 *Enhanced Compressed Sensing using Iterative Support Detection*. SIAM Conference on Imaging Science. Chicago, Illinois.
- 02/21/2007 *Simultaneous Image Deblurring and Denoising*, Department of Computational and Applied Mathematics, Rice University, Houston, TX.
- 12/06/2006 *What Energy Functions Can Be Minimized Via Graph Cuts*, Department of Computational and Applied Mathematics, Rice University, Houston, TX.

TEACHING EXPERIENCE

- Spring 2009 Teaching Assistant, CAAM 471, *Introduction to Linear and Integer Programming*, Rice University.
- Fall 2007 Grader, CAAM 453, *Numerical Analysis I*, Rice University.
- Fall 2006 Grader, CAAM 453, *Numerical Analysis I*, Rice University.
- Spring 2004 Teaching Assistant, *Advanced Linear Algebraic*, Fudan University, China.
- Fall 2003 Teaching Assistant, *Algorithm Design With C and C++*, Fudan University, China.

Spring 2003 Teaching Assistant, *Data Structure (Object-Oriented and Described by C++)*, Fudan University, China.

COMPUTER SKILLS

- Familiar with numerical computing software packages such as BLAS, LAPACK, ARPACK, Mosek, YALMIP, and CPLEX.
 - Proficiency in programming in Matlab, C, C++.
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AWARD

2005-2006 Rice University Engineering Fellowship, Rice University.

1998-1999 First Class Award For Excellent Study, Dalian University of Technology, China.

REFERENCES

Available upon request.