

Biographical Sketch of Zhijun Qiao

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A. Professional preparation

Fudan University, Institute of Mathematics, Ph. D (Applied Math), 1997.

B. Academic Appointments

President's Endowed Professor, School of Math and Stat Sciences, UTRGV, present.

Program Researcher, Los Alamos National Laboratory, Theoretical Division, 2001 – 2004.

Humboldt Research Fellow, Dept of Math, University of Kassel, Germany, 1999 – 2001.

Professor, Department of Mathematics, Liaoning University, China, 1997 – 2001.

C. Publications: 2 research monographs and 156 publications in peer-reviewed journals (including more than 100 international articles, see <http://faculty.utrgv.edu/zhijun.qiao/Publications-qiao.html> for more details). Here are 5 selected publications which are closely related to this project:

1. **Zhijun Qiao** with Lei Zhang and Hongxian Wang (2016): Resolution enhancement for ISAR imaging via improved statistical compressive sensing, *EURASIP Journal on Advances in Signal Processing*, 2016:80 DOI:10.1186/s13634-016-0379-2.
2. **Zhijun Qiao** with Huihuang Zhao, Yaonan Wang and Xiaojiang Peng (2015): Gradient based compressive sensing for noise image and video reconstruction, *Communications, IET*, 9(7), 940 – 946, DOI:10.1049/iet-com.2014.0911.
3. **Zhijun Qiao** with Lei Zhang, Jia Duan, Mengdao Xing and Zhen Bao (2014): Phase adjustment and ISAR imaging of maneuvering targets with sparse apertures, *IEEE Transactions on Aerospace and Electronic Systems*, 50(3), 1955 – 1973.
4. **Zhijun Qiao** with Lei Zhang, et al (2014): A fast BP algorithm with wavenumber spectrum fusion for high-resolution spotlight SAR imaging, *IEEE Geoscience and Remote Sensing Letters* 11(9), 1460 – 1464.
5. **Zhijun Qiao** with Yan Shen, Houjin Chen, and Chang Yao (2013): "Super-resolution reconstruction of compressed sensing mammogram based on contourlet transform", *Proc. SPIE* 8750, <http://dx.doi.org/10.1117/12.2019037>

Other 5 significant publications

1. **Zhijun Qiao** with Bing Sun, et al (2014): Compressive sensing imaging for general synthetic aperture radar echo model based on Maxwell's equations, *EURASIP Journal on Advances in Signal Processing*, 2014:153; DOI: 10.1186/1687-6180-2014-153.
2. **Zhijun Qiao** with Juan Lopez, et al (2014): "Image reconstruction and compressive sensing in MIMO radar", *Proc. SPIE* 9077, 907700; <http://dx.doi.org/10.1117/12.2051275>
3. **Zhijun Qiao** with J Lopez (2013): "Array geometries, signal type, and sampling conditions for the application of compressed sensing in MIMO radar", *Proc. SPIE* 8717; <http://dx.doi.org/10.1117/12.2016296>
4. **Zhijun Qiao** with Alex Martinez (2013): "Iteratively compensating for multiple scattering in SAR imaging", *Proc. SPIE* 8746, <http://dx.doi.org/10.1117/12.2016281>
5. **Zhijun Qiao** with Lei Zhang et al (2012): A Robust Motion Compensation Approach for UAV SAR Imagery, *IEEE Trans on Geoscience and Remote Sensing* 50, 3202.

D. Synergistic Activities:

1. As a *PI*, I received 8 research grants in past five years, one from DoD (550K, 08-12), one from TX-NHARP (145K, 10-13), one from DoED (666K, fellowships program for students, active, 12-16), three from UTRGV, one from Los Alamos National Laboratory, and one from Ministry of Education, China.
2. *SPIE* conferences committee member for 1) Radar Sensor Technology and 2) Compressive Sensing; *Principal organizer* of special sessions for AMS and SIAM, 2005 – 2009.
3. As an *expert* in integrable system and nonlinear dynamics, I was invited to participate in the DoD- Applied Math program at Delaware State University from May to June 2005.
4. Editor for the following six international journals: [ISRN Mathematical Physics](#), since 2010, [Journal of Applied Analysis and Computation](#), [International Journal of Analysis](#), [Turkish Journal of Physics](#), [Cogent Mathematics](#), and [Austin Mathematics](#).
5. *Referee* of the International Journals: Advances in Mathematics, Physical Review E, Nonlinearity; IEEE Trans on Geoscience and Remote Sensing, IEEE Transactions on Aerospace and Electronic Systems, Journal of Mathematical Physics; Journal of Computational Physics; Appl. Math Lett etc.
6. *The Alexander von Humboldt Research fellow*, 99 – 01. Later follow-up in 2005 and 2008.

E. Collaborators List (8 external experts)

Ph D Advisors: Chaohao Gu and Hesheng Hu, Fudan University

Other collaborators:

Andras Balogh: University of Texas – Rio Grande Valley

Cewen Cao: Zhengzhou University

Darryl Holm: Los Alamos National Laboratory

Shengtai Li: Los Alamos National Laboratory

Jibin Li: Zhejiang Normal University

Yan Shen, Beijing Jiaotong University

Fengshan Liu: Delaware State University

Jacek Szmigielski: University of Saskatchewan

Walter Strampp, University of Kassel, Germany

Postdoc researchers and graduate students (supervised 2 postdoc and 7 graduate students)

Baoqiang Xia, Xuzhou Normal University, Associate Professor

Guoping Zhang, Delaware State University, Associate Professor

Xianqi Li, University of Florida, Ph D student

Guillermo Garza, University of Texas – Rio Grande Valley, Lecturer

Juan Lopez, University of Houston – Ph D student

Alex Martinetz, University of Texas – Rio Grande Valley, Lecturer

Haiqi Wang, Georgia State University, Ph D student

John Montalbo, University of Texas – Arlington, Ph D student

Mengqi Hu, University of Texas – Dallas, Ph D Student

Undergraduate students (advised 3 undergraduate students)

Manual Lara, University of Indiana – Bloomington, *Eugenio De Hoyos*, Massachusetts Institute of Technology, and *Jaime Lopez*, University of Texas – Rio Grande Valley