Dong Liang

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RESEARCH INTERESTS

- Magnetic Resonance Imaging
- Compressed sensing
- Image reconstruction
- Machine Learning

EDUCATION

•	Ph.D. in Pattern Recognition and Intelligent System,	
	Shanghai Jiaotong University, China	03/ 2006
•	M.S. in Signal and Information Processing,	
	Hefei University of Technology, China	06/2002
•	B. S. in Electronics Engineering,	
	Hefei University of Technology, China	06/1998

PROFESSIONAL POSITIONS

- Full Professor, 12/2014 present Institute of Biomedical and Health Engineering, *Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences*, China,
- Associate Professor, 04/2011 12/2014 Institute of Biomedical and Health Engineering, *Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences*, China,
- Research Scientist and Postdoctoral Research Associate, 11/2007 04/2011 Department of Electrical Engineering and Computer Science, University of Wisconsin – Milwaukee, USA,
- **Postdoctoral Research Associate and Postdoctoral Research Assistant**, 07/2006 08/2007 Department of Electrical and Electronic Engineering, *The University of Hong Kong*, Hong Kong.

PROFESSIONAL MEMBERSHIPS

- Senior Member, IEEE (Signal Processing Society, EMBS Society), 2014 present
- Member, International Society of Magnetic Resonance in Medicine, 2009 present

PROFESSIONAL ACTIVITIES AND SERVICE TO SCIENTIFIC COMMUNITY

- Associate Editor, IEEE Transactions on Medical Imaging, 2014-present
- Editorial Board, Quantitative Imaging in Medicine and Surgery, 2014 present
- Vise director, Working Committee on Youth, Chinese Society of Biomedical Engineering. 2014present
- Session chair, IEEE Annual Conference of Engineering in Medicine and Biology Society, 2013

• Session co-chair, IEEE International Symposium on Biomedical Imaging: From Nano to Macro, 2015

SELECTED PUBLICATIONS

- X Peng, L Ying, Y Liu, J Yuan, X Liu, D Liang, "Accelerated exponential parameterization of T2 relaxation with model-driven low rank and sparsity priors (MORASA)", *Magnetic Resonance in Medicine*, DOI: 10.1002/mrm.26083, 2016.
- Y Zhou, P Pandit, V Pedoia, J Rivoire, Y Wang, D Liang, X Li, L Ying. "Accelerating T1p cartilage imaging using compressed sensing with iterative locally adapted support detection and JSENSE," *Magnetic Resonance in Medicine*. 75:1617-1629, 2016.
- S Wang, J Liu, Q Liu, L Ying, X Liu, H Zheng, D Liang, "Iterative feature refinement for accurate undersampled MR image reconstruction", *Physics in Medicine and Biology*;61(9):3291-3316, 2016. Featured Article
- 4. H She, R-R Chen, D Liang, Y Chang, L Ying, "Image reconstruction from phased-array data based on multichannel blind deconvolution", *Magnetic Resonance Imaging*, 33:1106-1113, 2015.
- 5. X Peng, D. Liang, "MR Image reconstruction with convolutional characteristic constraint (CoCCo)", *IEEE Signal Processing Letters*, 22:1184-1188, 2015.
- 6. X Peng, L Ying, Q Liu, Y Zhu, Y Liu, X Qu, X Liu, H Zheng, D Liang. "Incorporating reference in parallel imaging and compressed sensing," *Magnetic Resonance in Medicine*, 73:1490-1504, 2015.
- 7. Y Zhu, Q Zhang, Q Liu, Y Wang, X Liu, H Zheng, D Liang, J Yuan, "iPaD-T1rho:Integrating principal component analysis and dictionary learning for fast T1rho mapping", *Magnetic Resonance in Medicine*, 73:263-272, 2015.
- Y Wu, Y Zhu, Q Tang, W Liu, R Dai, X Liu, Ed X. Wu, L Ying, D Liang "Accelerated MR diffusion tensor imaging using distributed compressed sensing" *Magnetic Resonance in Medicine*, 71(2), pp.763-772, 2014.
- 9. H She, R-R Chen, D Liang, E V. R. DiBella, L Ying, "Sparse BLIP: Blind iterative parallel imaging using compressed sensing" *Magnetic Resonance in Medicine*, 71(2), pp. 645-660, 2014.
- 10. Q Liu, S Wang, L Ying , X Peng, Y Zhu, D Liang, "Adaptive dictionary learning in sparse gradient domain for image recovery", *IEEE Transactions on Image Processing*, 22(12), 4652-4663, 2013.
- 11. Q Liu, S Wang, K Yang, J Luo, Y Zhu, D Liang, "Highly undersampled magnetic resonance image reconstruction using two-level Bregman method with dictionary updating", *IEEE Transactions on Medical Imaging*, 32(7), pp.1290-1301, 2013.
- D Liang, E V. R. DiBella, R-R Chen, L Ying, "k-t ISD: Dynamic cardiac MR imaging using compressed sensing with iterative support detection", *Magnetic Resonance in Medicine*, 68, pp.41-53, 2012.
- 13. H Wang, D Liang, K F. King, G Nagarsekar, L Ying, "Improving GRAPPA using cross-sampled autocalibration data", *Magnetic Resonance in Medicine*, 67, pp.1042-1053, 2012..
- 14. Y Chang, D Liang, L Ying, "Nonlinear GRAPPA: A kernel approach to parallel MRI reconstruction", *Magnetic Resonance in Medicine*, 68, pp.730-740, 2012.
- 15. D Liang, H Wang, Y Chang, L Ying, "Sensitivity encoding reconstruction with nonlocal total variation regularization", *Magnetic Resonance in Medicine*, 65, pp. 1384–1392, 2011.
- 16. D Liang, B Liu, J Wang, L Ying, "Accelerating SENSE using compressed sensing", *Magnetic Resonance in Medicine*, 62, pp. 1574–1584, 2009.