

Samir D. Sharma

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EDUCATION

Ph.D. in Electrical Engineering May 2012
University of Southern California
Adviser: Krishna S. Nayak, Ph.D.

M.S. in Electrical Engineering 2007
The Ohio State University
Adviser: Lee C. Potter, Ph.D.
Thesis Title: Three-Dimensional Parameter Estimation from Sparse,
Multipass Synthetic Aperture Radar

B.S. in Electrical Engineering 2005
The Ohio State University

RESEARCH EXPERIENCE

Graduate Research Assistant 2007 – present
Magnetic Resonance Engineering Lab University of Southern California

Graduate Research Assistant 2005 – 2007
Information Processing Systems Lab The Ohio State University

AWARDS

Best Poster Award, USC Electrical Engineering Research Festival, 2011. One of four to receive award out of 80+ Ph.D students.

Ph.D. Scholar, USC Ming Hsieh Institute, 2010 – 2011. One of five Ph.D. students in the Department of Electrical Engineering awarded this honor based on research accomplishments and promise for a career in academia.

Educational Stipend, International Society for Magnetic Resonance in Medicine, 2009, 2010, 2011.

Provost's Fellow, University of Southern California, 2007 – 2011. One of 100 Ph.D. students chosen university-wide who show outstanding promise for careers in academic research and teaching.

TALKS

- Accelerated Water-Fat MRI Using Multiscale B-spline Field Map Estimation and Compressed Sensing. MR Research Group, University of Wisconsin, Madison, October 2011.
- Accelerated Water-Fat Imaging Using Compressed Sensing. MR Research Group, University of California, San Diego, April 2011.
- Compressed Sensing in MRI. Department of Psychology, University of Southern California, February 2010.

JOURNAL PUBLICATIONS

- J2. **Sharma SD**, Hu HH, Nayak KS. Chemical shift encoded water-fat separation using parallel imaging and compressed sensing. (in review)
- J1. **Sharma SD**, Hu HH, Nayak KS. Accelerated water-fat imaging using restricted subspace field map estimation and compressed sensing. *Magn Res Med* 2012; 67:650-659.

CONFERENCE PROCEEDINGS

- C12. **Sharma SD**, Hu HH, Nayak KS. Accelerated liver fat quantitation using parallel imaging and compressed sensing. 20th Annual ISMRM Conference, May 2012, Melbourne.
- C11. **Sharma SD**, Hu HH, Nayak KS. Accelerated water-fat separation using parallel imaging, compressed sensing, and multiscale cubic B-splines. 20th Annual ISMRM Conference, May 2012, Melbourne.
- C10. **Sharma SD**, Hu HH, Alley MT, Hargreaves BA, Nayak KS. Prospectively accelerated water-fat separation using parallel imaging and compressed sensing. ISMRM Workshop on Fat-Water Separation: Insights, Applications, and Progress in MRI, February 2012, Long Beach.
- C9. **Sharma SD**, Tjan BS, Nayak KS. One-step thresholding for BOLD signal detection in accelerated fMRI. 19th Annual ISMRM Conference, May 2011, Montreal.
- C8. **Sharma SD**, Hu HH, Nayak KS. Accelerated water-fat imaging using restricted subspace fieldmap estimation. 19th Annual ISMRM Conference, May 2011, Montreal.
- C7. Fong CL, Tzung B, **Sharma SD**, Law M, Nayak KS. Compressed sensing in neuroclinical imaging. 96th Annual RSNA Meeting, November 2010, Chicago.
- C6. Fong CL, Tzung B, **Sharma SD**, Law M, Nayak KS. Compressed sensing reconstruction in clinical neuroimaging. 48th Annual ASNR Meeting, May 2010, Boston.

- C5. **Sharma SD**, Fong CL, Tzung B, Law M, Nayak KS. Clinical image quality assessment of CS-reconstructed brain images. 18th Annual ISMRM Conference, May 2010, Stockholm.
- C4. **Sharma SD**, Hu HH, Nayak KS. Acceleration of IDEAL water-fat imaging using compressed sensing. 18th Annual ISMRM Conference, May 2010, Stockholm.
- C3. **Sharma SD**, Nayak KS. Region of interest compressed sensing. 17th Annual ISMRM Conference, April 2009, Honolulu.
- C2. **Sharma SD**, Nayak KS. Region of interest compressed sensing. ISMRM Workshop on Data Sampling and Image Reconstruction, January 2009, Sedona.
- C1. Ertin E, Austin CD, **Sharma SD**, Moses RL, Potter LC. GOTCHA experience report: three-dimensional SAR imaging with complete circular aperture. SPIE Defense and Security Symposium, April 2007, Orlando.

TEACHING EXPERIENCE

Graduate Teaching Assistant	2009 – 2010
Electrical Engineering	University of Southern California
<i>Courses:</i> Foundations of Electrical Engineering Systems, Information Theory	
Graduate Teaching Assistant	2005 - 2006
College of Engineering	The Ohio State University
<i>Courses:</i> Fundamentals of Engineering	

REFERENCES

(available upon request)