

Emine Ulku SARITAS, *Ph.D.*

CONTACT INFORMATION

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Dept. of Electrical & Electronics Engineering
Bilkent University

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RESEARCH INTERESTS

Biomedical imaging systems, magnetic particle imaging (MPI), magnetic resonance imaging (MRI)

Imaging systems for biomedical, clinical, and biological applications. Pre-clinical and clinical implementations of novel imaging and image reconstruction methods. Safety limits of magnetic fields used in medical imaging systems. Signal and image processing methods.

EDUCATION

Stanford University, Stanford, CA, USA

Ph.D., Electrical Engineering, June 2004 - Dec. 2009.

Dissertation title: High-Resolution Diffusion MRI of Targeted Regions

Primary Advisor: Prof. Dwight G. Nishimura

Secondary Advisor: Prof. John M. Pauly

M.S., Electrical Engineering, Sept. 2002 - June 2004.

Bilkent University, Ankara, Turkey

B.S., Electrical and Electronics Engineering, Sept. 1998 - June 2002.

ACADEMIC EXPERIENCE

Bilkent University, Department of Electrical & Electronics Engineering, and National Magnetic Resonance Research Center (UMRAM), Ankara, TURKEY

Assistant Professor, Sept. 2013 - Present.

University of California, Berkeley, Department of Bioengineering, Berkeley, CA, USA

Postdoctoral Researcher, Berkeley Imaging Systems Lab., Sept. 2010 - Aug. 2013.

Advisor: Prof. Steven M. Conolly

Stanford University, Department of Electrical Engineering, Stanford, CA, USA

Postdoctoral Researcher, Magnetic Resonance Systems Research Lab., Jan. 2010 - Aug. 2010.

Advisor: Prof. Dwight G. Nishimura

Research Assistant, Magnetic Resonance Systems Research Lab., June 2003 - Dec. 2009.

Teaching Assistant, EE369A: Medical Imaging I (Graduate Level), Winter 2007.

PROFESSIONAL EXPERIENCE

Stanford University, Stanford, CA, USA

Consultant, Department of Radiology, Jan. 2011 - Jan. 2012.

Clinical implementations of novel MRI pulse sequences for high-resolution diffusion-weighted imaging, in collaboration with GE Healthcare.

GE Healthcare, Menlo Park, CA, USA

Researcher, Applied Science Laboratory, June 2008 - Sept. 2008.

New methods for improved high-resolution diffusion-weighted imaging and diffusion-tensor imaging, advanced MRI pulse sequence development, and RF pulse design.

ACADEMIC JOURNAL EDITORSHIP

- Associate Editor for *IEEE Transactions on Medical Imaging*, since January 2016.
- Editorial Board Member for *Scientific Reports*, Nature Publishing Group, since December 2014.
- Review Editor in Biomedical Physics for *Frontiers in Physics*, since April 2016.
- Editorial Board Member for *International Journal on Magnetic Particle Imaging*, Infinite Science Publishing, since November 2015.
- Invited Editor for *Turkish Journal of Electrical Engineering & Computer Sciences*, TUBITAK, March 2016.

HONORS AND AWARDS

- 2016 Scientist of the Year Award, Science Heroes Association (Bilim Kahramanlari Dernegi), May 2017.
- Young Scientist Award (BAGEP), Science Academy (Bilim Akademisi), April 2016.
- Chair of Women in Engineering, IEEE Turkey Section, since April 2016.
- Young Scientist Outstanding Achievement Award (GEBIP), Turkish Academy of Sciences (TUBA), May 2015.
- Career Award for Young Researchers (TUBITAK 3501), The Scientific and Technological Research Council of Turkey, October 2014.
- Marie Curie Career Integration Grant, European Commission, October 2013.
- Postdoctoral Reintegration Fellowship (TUBITAK 2232), The Scientific and Technological Research Council of Turkey, August 2013.
- Siebel Stem Cell Institute Postdoctoral Fellowship, UC Berkeley, Jan. - Dec. 2011.
- Lucent Technologies Stanford Graduate Fellowship, 12 quarters, Autumn 2002 - Summer 2005.
- Ranked 7th (out of about 200 MS students) in the PhD qualifying examinations in Dept. of Electrical Engineering, Stanford University, 2003.
- First in class (with GPA of 4.00/4.00) out of about 300 students in class of 2002 in the entire School of Engineering, Bilkent University, Ankara, Turkey, 2002.
- Full scholarship for undergraduate education in the top engineering school in Turkey, Bilkent University, Ankara, Turkey, 1998 - 2002.
- Ranked 96th among 1.5 million examinees in the university entrance examinations, Turkey, 1998.

RESEARCH PROJECTS

- “Interventions Guided by Magnetic Imaging and Nanoparticle Coated Equipment, **Principal Investigator**, TUBITAK-BMBF, Turkey-Germany 2+2 Project, 115E677, 2017-2019.
- “Magnetic Active Nanochains for Nanobiomedicine, **Principal Investigator**, European Commission, ERA.Net RUS Plus Project 215E198, 2016-2017.
- “Magnetic Particle Imaging for Cancer Imaging: Sensing Local Diffusion Effects”, **Principal Investigator**, TUBITAK 3501 - Career Development Grant, The Scientific and Technological Research Council of Turkey, 114E167, 2014-2017.
- “Magnetic Particle Imaging for Safe Angiography”, **Principal Investigator**, Marie Curie Career Integration Grant, European Commission, PCIG13-GA-2013-618834, 2013-2017.
- “High Resolution Magnetic Particle Imaging”, **Principle Investigator**, TUBITAK 2232 - Postdoctoral Reintegration Grant, The Scientific and Technological Research Council of Turkey, 113C012, 2013-2015.
- “Bilkent University R&D Strategy Document - Neurosciences”, Researcher, TUBITAK 1000 Project, 2017-2018.
- “Development of Compressed Sensing Magnetic Resonance Imaging Technologies”, Researcher (Principle Investigator: Tolga Cukur), ASELSAN-Bilkent Joint Project, 2015-2018.
- “Implant Compatible Magnetic Resonance Imaging”, Researcher (Principle Investigator: Ergin Atalar), Turkish Ministry of Development Grant, 02.04.STZ-2013-1, 2013-2016.
- “Magnetostimulation Limits for kHz Range Magnetic Fields to Improve MPI”, Postdoctoral Researcher, University of California Berkeley, 2010-2013.
- “Magnetic Particle Imaging: A Novel Ultra-Sensitive Imaging Scanner for Tracking Stem Cells In Vivo”, Researcher (Principal Investigator: Steven M. Conolly), CIRM Tools and Technologies Grant RT1-01055 & RT2-01893, 2010-2013.
- “Magnetic Particle Imaging Angiography for Chronic Kidney Disease Patients”, Researcher (Principal Investigator: Steven M. Conolly), NIH Grant R01 EB013689, 2011-2013.
- “Reduced-FOV Diffusion MRI of Spine, Head and Neck”, Researcher (Co-directors: Greg Zaharchuk and Ajit Shankaranarayanan), Stanford University - General Electric (GE) Healthcare Sponsored Tiger Team Project, 2011-2012.

- “High-Resolution Diffusion MRI of Targeted Regions”, Ph.D. Thesis Project, Advisor: Dwight G. Nishimura, Stanford University, 2003-2010.

PATENT

EU Saritas, S Banerjee. “System and Method for Reduced Field of View Magnetic Resonance Imaging”. US Patent 20,150,301,143. Status: Filed.

BOOK CHAPTER

EU Saritas, SJ Holdsworth and R Bammer. “Susceptibility Artifacts in Spinal Cord”. p.91-105, In *Quantitative MRI of the Spinal Cord*, ISBN:9780123969736, Elsevier, March 2014.

JOURNAL PUBLICATIONS

1. B Zheng, E Yu, R Orendorff, K Lu, JJ Konkle, ZW Tay, D Hensley, XY Zhou, P Chandrasekharan, **EU Saritas**, PW Goodwill, JD Hazle, SM Conolly. “Seeing SPIOs Directly In Vivo with Magnetic Particle Imaging”, *Mol Imaging Biol*,19(3):385-390, 2017.
2. S Ilbey, CB Top, A Gungor, T Utkur, **EU Saritas**, HE Guven. “Comparison of System-Matrix-Based and Projection-Based Reconstructions for Field Free Line Magnetic Particle Imaging”, *International Journal on Magnetic Particle Imaging*, 3(1):1703022, 2017.
3. OB Demirel, **EU Saritas**. “Effects of Duty Cycle on Magnetostimulation Thresholds in MPI”, *International Journal on Magnetic Particle Imaging*, 3(1):1703010, 2017.
4. M Utkur, Y Muslu and **EU Saritas**. “Relaxation-based viscosity mapping for magnetic particle imaging”. *Phys Med Biol*, 62(9):3422-3439, 2017.
5. S Banerjee, DG Nishimura, A Shankaranarayanan and **EU Saritas**. “Reduced Field-of-View DWI with Robust Fat Suppression and Unrestricted Slice Coverage Using Tilted 2D RF Excitation”. *Magn Reson Med*, 76(6):1668-1676, 2016.
6. K Thangavel and **EU Saritas**. “Aqueous paramagnetic solutions for MRI phantoms at 3T: A detailed study on relaxivities”. *Turk J Elec Eng & Comp Sci*. DOI: 10.3906/elk-1602-123.
7. E Ilicak, S Cetin, E Bulut, KK Oguz, **EU Saritas**, G Unal and T Cukur. “Targeted Vessel Reconstruction in Non-contrast-enhanced Steady-state Free Precession Angiography”. *NMR Biomed*, 29(5):532-544, 2016.
8. LR Croft, PW Goodwill, JJ Konkle, H Arami, DA Price, AX Li, **EU Saritas** and SM Conolly. “Low Drive Field Amplitude for Improved Image Resolution in Magnetic Particle Imaging”. *Med Phys*, 43(1):424-435, 2016.
9. O Yilmaz, **EU Saritas** and T Cukur. “Enhanced Phase-Sensitive SSFP Reconstruction for Fat-Water Separation in Phased-Array Acquisitions”. *J Magn Reson Imaging*, 44(1):148-157, 2016.
10. B Zheng, T Vazin, PW Goodwill, A Conway, A Verma, **EU Saritas**, D Schaffer and SM Conolly. “Magnetic Particle Imaging tracks the long-term fate of in vivo neural cell implants with high image contrast”. *Sci Rep* 5:14055, 2015.
11. **EU Saritas**, PW Goodwill and SM Conolly. “Effects of Pulse Duration on Magnetostimulation Thresholds”. *Med Phys* 42(6):3005-3012, 2015.
12. RM Ferguson, AP Khandhar, SJ Kemp, H Arami, **EU Saritas**, LR Croft, J Konkle, PW Goodwill, A Halkola, J Rahmer, J Borgert, SM Conolly and KM Krishnan. “Magnetic Particle Imaging with Tailored Iron Oxide Nanoparticle Tracers”. *IEEE Trans Med Imag*, 34(5):1077-1084, 2015.
13. N Korn, J Kurhanewicz, S Banerjee, O Starobinets, **E Saritas** and S Noworolski. “Reduced-FOV excitation decreases susceptibility artifact in diffusion-weighted MRI with endorectal coil for cancer detection”. *Magn Reson Imaging*, 33(1):56-62, 2015.
14. **EU Saritas**, D Lee, T Cukur, A Shankaranarayanan and DG Nishimura. “Hadamard Slice Encoding for Reduced-FOV Diffusion-Weighted Imaging”. *Magn Reson Med*, 72:1277-1290, 2014.
15. JJ Konkle, PW Goodwill, **EU Saritas**, B Zheng, K Lu and SM Conolly. “Twenty-Fold Acceleration of 3D Projection Reconstruction MPI”. Invited paper. *Biomed Tech (Berl)*, 13:1-12, 2013.

16. **EU Saritas**, PW Goodwill, GZ Zhang and SM Conolly. “Magnetostimulation Limits in Magnetic Particle Imaging”. *IEEE Trans Med Imag*, 32(9):1600-1610, 2013.
17. K Lu, PW Goodwill, **EU Saritas**, B Zheng and SM Conolly. “Linearity and Shift-Invariance for Quantitative X-Space Magnetic Particle Imaging”. *IEEE Trans Med Imag*, 32(9):1565-1575, 2013.
18. LJ Wilmes, RL McLaughlin, DC Newitt, L Singer, SP Sinha, E Proctor, DJ Wisner, **EU Saritas**, J Kornak, A Shankaranarayanan, S Banerjee, EF Jones, BN Joe, NM Hylton. “High-Resolution Diffusion-Weighted Imaging for Monitoring Breast Cancer Treatment Response”. *Academic Radiology*, 20(5):581-589, 2013.
19. DC Karampinos, G Melkus, TM Shepherd, S Banerjee, **EU Saritas**, A Shankaranarayanan, CP Hess, TM Link, WP Dillon and S Majumdar. “Diffusion Tensor Imaging and T2 Relaxometry of Bilateral Lumbar Nerve Roots: Feasibility of In-plane Imaging”. *NMR Biomed*, 26(6):630-637, 2013.
20. **EU Saritas**, PW Goodwill, LR Croft, JJ Konkle, K Lu, B Zheng and SM Conolly. “Magnetic Particle Imaging (MPI) for NMR and MRI Researchers”. Invited paper. *J Magn Reson*, 229:116-126, 2013.
21. **PW Goodwill*** and **EU Saritas*** (*co-first authors), LR Croft, T Kim, KM Krishnan, DV Schaffer and SM Conolly. “X-Space MPI: Magnetic Nanoparticles for Safe Medical Imaging”. Invited paper. *Advanced Materials*, 24(28):3870-3877, 2012.
22. PW Goodwill, JJ Konkle, B Zheng, **EU Saritas** and SM Conolly. “Projection X-Space Magnetic Particle Imaging”. *IEEE Trans Med Imag*, 31(5):1076-1085, 2012.
23. JB Andre, **EU Saritas**, G Zaharchuk, J Rosenberg, ST Komakula, S Banerjee, A Shankaranarayanan, DG Nishimura and NJ Fischbein. “Clinical Evaluation of Reduced Field-of-View (rFOV) Diffusion-Weighted Imaging of the Cervical and Thoracic Spine and Spinal Cord”. *Am J Neurorad*, 33(10):1860-1866, 2012.
24. L Singer, LJ Wilmes, **EU Saritas**, A Shankaranarayanan, E Proctor, DJ Wisner, B Chang, BN Joe, DG Nishimura and NM Hylton. “High-resolution Diffusion-weighted Magnetic Resonance Imaging in Patients with Locally Advanced Breast Cancer.” *Academic Radiology*, 19(5):526-534, 2012.
25. T Cukur, M Lustig, **EU Saritas** and DG Nishimura. “Signal Compensation and Compressed Sensing for Magnetization-Prepared MR Angiography.”. *IEEE Trans Med Imag*, 30(5):1017-1027, 2011.
26. **EU Saritas**, JH Lee and DG Nishimura. “SNR Dependence of Optimal Parameters for Apparent Diffusion Coefficient Measurements”. *IEEE Trans Med Imag*, 30(2):424-437, 2011.
27. G Zaharchuk, **EU Saritas**, JB Andre, CT Chin, J Rosenberg, TJ Brosnan, A Shankaranarayanan, DG Nishimura and NJ Fischbein. “Reduced Field-of-View Diffusion Imaging of the Human Spinal Cord: Comparison with Conventional Single-shot Echo-Planar Imaging”. *Am J Neurorad*, 32(5):813-820, 2011.
28. **EU Saritas**, CH Cunningham, JH Lee, ET Han and DG Nishimura. “DWI of the Spinal Cord with Reduced FOV Single-Shot EPI”. *Magn Reson Med*, 60(2):468-473, 2008.
29. JH Lee, SO Dumoulin, **EU Saritas**, GH Glover, BA Wandell, DG Nishimura and JM Pauly. “Full-Brain Coverage and High-Resolution Imaging Capabilities of Passband b-SSFP fMRI at 3T”. *Magn Reson Med*, 59(5):1099-1110, 2008.

CONFERENCE
PUBLICATIONS

1. D Sarica, OB Demirel and **EU Saritas**. “DC Shift Based Image Reconstruction for Magnetic Particle Imaging”, *Proc of the 25th IEEE Signal Processing and Communications Applications Conference (SIU)*, Antalya, Turkey, May 2017.
2. SG Kafali, T Cukur and **EU Saritas**. “Joint Non-local Means Reconstruction for Correction of Phase-Induced Errors in Diffusion Tensor Imaging”, *Proc of the 25th Annual Meeting of ISMRM*, Hawaii, USA, p.3332, April 2017.

3. T Kilic, E Ilicak, T Cukur and **EU Saritas**. “Improved SPIRiT Operator for Joint Reconstruction of Multiple T2-weighted Images”, *Proc of the 25th Annual Meeting of ISMRM*, Hawaii, USA, p.5165, April 2017.
4. C Bahadir, S Banerjee, A Shankaranarayanan and **EU Saritas**. “Sheared 2DRF Excitation for Improved Off-resonance Robustness in Reduced FOV Imaging”, *Proc of the 25th Annual Meeting of ISMRM*, Hawaii, USA, p.1318, April 2017.
5. E Kopanoglu, A Gungor, T Kilic, **EU Saritas**, T Cukur and HE Guven. “Joint Reconstruction of Multi-Contrast Images: Compressive Sensing Reconstruction using both Joint and Individual Regularization Functions”, *Proc of the 25th Annual Meeting of ISMRM*, Hawaii, USA, p.3875, April 2017.
6. S Ilbey, CB Top, T Cukur, **EU Saritas**, HE Guven. “Image Reconstruction for Magnetic Particle Imaging Using an Augmented Lagrangian Method”, *Proc of the 2017 IEEE 14th International Symposium on Biomedical Imaging (ISBI)*, Melbourne, Australia, April 2017.
7. M Utkur, A Alipour, Y Muslu, **EU Saritas**. “Relaxation-Based Viscosity Mapping in Different Viscous Environments”, *Proc of the 7th International Workshop on Magnetic Particle Imaging*, Prague, Czech Republic, March 2017.
8. S Ilbey, CB Top, A Gungor, T ukur, **EU Saritas**, HE Guven. “Comparison of System-Matrix-Based and Projection-Based Reconstructions for Field Free Line Magnetic Particle Imaging”, *Proc of the 7th International Workshop on Magnetic Particle Imaging*, Prague, Czech Republic, March 2017.
9. OB Demirel, **EU Saritas**. “Effects of Duty Cycle on Magnetostimulation Thresholds in MPI”, *Proc of the 7th International Workshop on Magnetic Particle Imaging*, Prague, Czech Republic, March 2017.
10. SG Kafali, T Cukur and **EU Saritas**. “Simultaneous Phase-correction and Denoising for Diffusion-Weighted MRI”, *Proc of the 24th IEEE Signal Processing and Communications Applications Conference (SIU)*, Zonguldak, Turkey, p.1313-1316, May 2016.
11. E Ilicak, S Cetin, **EU Saritas**, G Unal, T Cukur. “Adaptive Reconstruction for Vessel Preservation in Unenhanced MR Angiography”, *Proc of the 24th IEEE Signal Processing and Communications Applications Conference (SIU)*, Zonguldak, Turkey, p.577-580, May 2016.
12. O Yilmaz, **EU Saritas**, T Cukur. “Phase-Sensitive Reconstruction for Fat-Water Separation in Multi-Coil Acquisitions”, *Proc of the 24th IEEE Signal Processing and Communications Applications Conference (SIU)*, Zonguldak, Turkey, p.469-472, May 2016.
13. SG Kafali, T Cukur and **EU Saritas**. “Phase-correcting Non-local Means Denoising for Diffusion-Weighted Imaging”, *Proc of the 24th Annual Meeting of ISMRM*, Singapore, p.2050, May 2016.
14. Y Muslu, M Utkur, OB Demirel and **EU Saritas**. “Calibration-Free Color MPI”, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.10, March 2016.
15. M Utkur, Y Muslu, A Alacaoglu, AA Ozaslan and **EU Saritas**. “Effects of Viscosity on Nanoparticle Relaxation Time Constant”, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.22, March 2016.
16. OB Demirel, D Sarica and **EU Saritas**. “Rapid Scanning in X-Space MPI: Impacts on Image Quality”, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.78, March 2016.
17. B Buyukates, D Sarica and **EU Saritas**. “Self Calibration for Relaxation- and System-Induced Delays in X-space MPI”, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.76, March 2016.
18. A Alacaoglu, AA Ozaslan, OB Demirel and **EU Saritas**. “Nonlinear Scanning in X-Space MPI”, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.74, March 2016.

19. D Sarica, OB Demirel, Y Muslu and **EU Saritas**. “DC Shift Imaging for X-Space MPI Reconstruction, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.80, March 2016.
20. G Onuker, OB Demirel, D Sarica, Y Muslu and **EU Saritas**. “Deconvolving Relaxation Effects in Multi-Dimensional X-space MPI, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.82, March 2016.
21. E Bozkurt, OB Demirel, D Sarica, Y Muslu and **EU Saritas**. “Effects of Safety Limits on Image Quality in MPI, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.70, March 2016.
22. CD Bahadir, M Utkur and **EU Saritas**. “Towards Simultaneous MFH and Temperature Monitoring with MPI, *Proc of the 6th International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, p.49, March 2016.
23. LJ Wilmes, W-C Lo, Wen Li, DC Newitt, S Banerjee, E Proctor, **EU Saritas**, A Shankaranarayanan and NM Hylton. “High Spatial Resolution DWI for Evaluation of Breast Tumor Early Treatment Response: Association of ADC Changes with PCR”. *Proc of the 23rd Annual Meeting of ISMRM*, Toronto, Canada, p.1077, June 2015.
24. G Onuker and **EU Saritas**. “Simultaneous Relaxation Estimation and Image Reconstruction in MPI, *Proc of the 5th International Workshop on Magnetic Particle Imaging*, Istanbul, Turkey, March 2015.
25. S Cetin, **EU Saritas** and G Unal. “Vessel Tractography for Magnetic Particle Imaging, *Proc of the 5th International Workshop on Magnetic Particle Imaging*, Istanbul, Turkey, March 2015.
26. M Utkur and **EU Saritas**. “Comparison of Different Coil Topologies for an MPI Relaxometer, *Proc of the 5th International Workshop on Magnetic Particle Imaging*, Istanbul, Turkey, March 2015.
27. D Sarica and **EU Saritas**. “Effects of Field Dependent Relaxation Time on X-Space MPI Images, *Proc of the 5th International Workshop on Magnetic Particle Imaging*, Istanbul, Turkey, March 2015.
28. K Thangavel, M Utkur and **EU Saritas**. “Optimizing Nanoparticle Selection and Drive Field Properties for Simultaneous MPI and Hyperthermia, *Proc of the 5th International Workshop on Magnetic Particle Imaging*, Istanbul, Turkey, March 2015.
29. S Banerjee, **EU Saritas**, R Connett and A Shankaranarayanan. “Reduced Field-of-View Diffusion with 2D Echo-Planar RF Excitation and Multiband Refocusing for Extended Slice Coverage and Robust Fast Suppression, *Proc of the 22nd Annual Meeting of ISMRM*, Milan, Italy, p.4437, May 2014.
30. L Wilmes, WC Lo, DC Newitt, S Banerjee, E Proctor, **E Saritas**, A Shankaranarayanan and NM Hylton. “High Spatial Resolution DTI Sequence for Characterizing Breast Tumor Early Treatment Response: Comparison to Standard DTI Sequence, *Proc of the 22nd Annual Meeting of ISMRM*, Milan, Italy, p.1055, May 2014.
31. ML Smits, BL Daniel, SE Clarke, J McKenney, A Wentland, M Saranathan, L Shin, K Sung, B Hargreaves, **EU Saritas**, DG Nishimura and G Sommer. “Accuracy of Multiparametric MRI for Mapping Prostate Cancer by Gleason Score, *Proc of the 22nd Annual Meeting of ISMRM*, Milan, Italy, p.4102, May 2014.
32. **EU Saritas**, PW Goodwill, JJ Konkle, LR Croft, K Lu, B Zheng and SM Conolly. “Magnetic Particle Imaging for Safe Angiography and Stem Cell Tracking”, *Proc of the 21st Annual Meeting of ISMRM*, Salt Lake City, UT, p.140, April 2013.
33. B Zheng, T Vazin, W Yang, PW Goodwill, **EU Saritas**, LR Croft, DV Schaffer and SM Conolly. “High Contrast, Quantitative Stem Cell Tracking with Magnetic Particle Imaging”, *Proc of the 21st Annual Meeting of ISMRM*, Salt Lake City, UT, p.1857, April 2013.
34. S Banerjee, **EU Saritas**, Gerd Melkus and Ajit Shankaranarayanan. “Tilted 2D RF Excitation with Extended Slice Coverage for High-Resolution Reduced-FOV DWI”, *Proc of the 21st Annual Meeting of ISMRM*, Salt Lake City, UT, p.57, April 2013.

35. S Banerjee, OA Glenn, **EU Saritas**, X Mu, D Xu, PW Worters and A Shankaranarayanan. “Reduced Field-of-View DWI of the Fetal Brain with Adaptive Averaging”, *Proc of the 21st Annual Meeting of ISMRM*, Salt Lake City, UT, p.2974, April 2013.
36. S Clarke, B Daniel, J McKenney, M Saranathan, B Hargreaves, J Brooks, H Gill, M Gonzalgo, B Chung, **E Saritas**, A Shankaranarayanan and G Sommer. “Prostate Cancer Localization Using Multi-Parametric MRI and a Maximum Likelihood Classification Algorithm”, *Proc of the 21st Annual Meeting of ISMRM*, Salt Lake City, UT, p.3405, April 2013.
37. N Korn, J Kurhanewicz, S Banerjee, **E Saritas** and SM Noworolski. “Reduced FOV Decreases Susceptibility Artifact in Diffusion-Weighted MRI for Prostate Cancer Detection”, *Proc of the 21st Annual Meeting of ISMRM*, Salt Lake City, UT, p.1779, April 2013.
38. LJ Wilmes, C-L Liu, DC Newitt, S Banerjee, RL McLaughlin, E Proctor, **EU Saritas**, A Shankaranarayanan and NM Hylton. “Comparison of a High Spatial Resolution DTI Sequence to Standard DTI for Evaluating Fractional Anisotropy of Breast Tumors”, *Proc of the 21st Annual Meeting of ISMRM*, Salt Lake City, UT, p.202, April 2013.
39. **EU Saritas**, PW Goodwill, D Chang and SM Conolly. “Effects of Frequency and Pulse Duration on Magnetostimulation Limits for MPI”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
40. E Yu, **EU Saritas** and SM Conolly. “Comparison of Magnetostimulation Limits for Axial and Transverse Drive Fields in MPI”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
41. PW Goodwill, LR Croft, JJ Konkle, K Lu, **EU Saritas**, B Zheng and SM Conolly. “A 7T/m 3D X-space MPI Mouse and Rat Scanner”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
42. JJ Konkle, PW Goodwill, **EU Saritas** and SM Conolly. “Twenty-Fold Acquisition Time Improvement in 3D Projection Reconstruction MPI”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
43. K Lu, PW Goodwill, B Zheng, **EU Saritas** and SM Conolly. “Toward Multidimensional X-space Magnetic Particle Imaging for Improved Resolution”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
44. B Zheng, T Vazin, W Yang, PW Goodwill, **EU Saritas**, LR Croft, D Schaffer and SM Conolly. “Quantitative Stem Cell Imaging with Magnetic Particle Imaging”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
45. LR Croft, PW Goodwill, D Price, **EU Saritas**, A Li and SM Conolly. “Effects of Scanning Rate on Relaxation-Induced Blurring in Magnetic Particle Image”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
46. W Yang, B Zheng, T Vazin, PW Goodwill, **EU Saritas**, D Schaffer and SM Conolly. “In vivo Magnetic Nanoparticle Cytometer for Stem Cells in Small Animals”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
47. D Price, LR Croft, **EU Saritas**, PW Goodwill and SM Conolly. “Large Tip Solution to Dynamic Langevin Equation for MPI”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
48. L Drews, LR Croft, H Kosuge, **EU Saritas**, PW Goodwill, M McConnell, SM Conolly and M Tirrell. “Imaging Atherosclerotic Plaques In Vivo using Peptide-Functionalized Iron Oxide Nanoparticles”, *Proc of the 3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, to be presented in March 2013.
49. **EU Saritas**, PW Goodwill, GZ Zhang, W Yu and SM Conolly. “Safety Limits for Human-Size Magnetic Particle Imaging Systems”, *Proc of the 2nd International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, March 2012.

50. PW Goodwill, LR Croft, JK Konkle, K Lu, **EU Saritas**, B Zheng and SM Conolly. “Third Generation X-space MPI Mouse and Rat Scanner”, *Proc of the 2nd International Workshop on Magnetic Particle Imaging*, Lubeck, Germany, March 2012.
51. DC Karampinos, G Melkus, TP Shepherd, S Banerjee, **EU Saritas**, A Shankaranarayanan, CP Hess, TM Link, WB Dillon and S Majumdar. “In plane T2 mapping and diffusion tensor imaging of lumbar nerve roots using a reduced-FOV acquisition”, *Proc of the 20th Annual Meeting of ISMRM*, Melbourne, p.53, May 2012.
52. LJ Wilmes, RL McLaughlin, S Sinha, DC Newitt, L Singer, E Proctor, D Wisner, **EU Saritas**, A Shankaranarayanan, S Banerjee, BN Joe and NM Hylton. “High-resolution DWI for Characterizing Breast Tumor Response to Treatment”, *Proc of the 20th Annual Meeting of ISMRM*, Melbourne, p.1467, May 2012.
53. JB Andre, **EU Saritas**, ST Komakula, J Rosenberg, DG Nishimura, G Zaharchuk and NJ Fischbein. “Clinical Evaluation of Reduced Field of View Diffusion-weighted Imaging of the Human Spinal Cord”, *Proc of the RSNA 97th Scientific Assembly and Annual Meeting*, Chicago, IL, November 2011.
54. **EU Saritas**, PW Goodwill, GZ Zhang, and SM Conolly. “Translation to Human-Size Magnetic Particle Imaging Systems: Magnetostimulation Limits”, *Proc of the 4th World Molecular Imaging Congress*, San Diego, CA, September 2011.
55. PW Goodwill, LR Croft, JJ Konkle, B Zheng, K Lu, **EU Saritas** and SM Conolly. “Theory and Hardware of X-Space Magnetic Particle Imaging”, *Proc of the 4th World Molecular Imaging Congress*, San Diego, CA, September 2011.
56. **EU Saritas**, A Shankaranarayanan, G Zaharchuk, and DG Nishimura. “Reduced-FOV Single-Shot Diffusion-Weighted EPI: Extended Slice Coverage with Tailored RF Pulse Design”, *Proc of the 19th Annual Meeting of ISMRM*, Montreal, p.1953, May 2011.
57. Z Xiao, A Shankaranarayanan, **EU Saritas**, H Shen, and G Cao. “Noninvasive Evaluation of Renal Oxygen Extraction Fraction via Reduced-FOV Asymmetric Spin Echo Approach”, *Proc of the 19th Annual Meeting of ISMRM*, Montreal, p.2952, May 2011.
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59. **EU Saritas**, G Zaharchuk, A Shankaranarayanan, M Aksoy, R Bammer, NJ Fischbein, M Boakye, and DG Nishimura. “High-Resolution DTI Tractography of the Spinal Cord with Reduced-FOV Single-Shot EPI at 3T”, *Proc of the 18th Annual Meeting of ISMRM*, Stockholm, p.3976, May 2010.
60. **EU Saritas**, D Lee, A Shankaranarayanan, and DG Nishimura. “Hadamard Slice-Encoding for Reduced-FOV Single-Shot Diffusion-Weighted EPI”, *Proc of the 18th Annual Meeting of ISMRM*, Stockholm, p.189, May 2010.
61. A Shankaranarayanan, **EU Saritas**, DG Nishimura, W Chen, and E Han. “In vivo MR High Resolution T1rho Mapping of the Spine at 3T Using a Reduced-FOV Approach”. *Proc of the 18th Annual Meeting of ISMRM*, Stockholm, p.465, May 2010.
62. G Zaharchuk, **EU Saritas**, JB Andre, A Shankaranarayanan, NJ Fischbein, DG Nishimura, M Boakye. “High-Resolution Spinal Cord Diffusion Tensor Imaging of Normal Subjects and Spinal Cord Injury Patients Using Reduced Field-of-View Single-Shot Echo Planar Imaging”. *Proc of the ASNR 48th Annual Meeting*, Boston, 2010.
63. **EU Saritas**, A Shankaranarayanan, ET Han, JK Barral, JH Lee and DG Nishimura. “High-Resolution DWI outside the CNS using Reduced-FOV Single-Shot EPI”. *Proc of the 17th Annual Meeting of ISMRM*, Honolulu, p.166, April 2009.
64. **EU Saritas**, A Shankaranarayanan and DG Nishimura. “Hadamard Slice Encoding for Reduced-FOV Single-Shot Diffusion-Weighted EPI”. *Proc of the 17th Annual Meeting of ISMRM*, Honolulu, p.1382, April 2009.

65. **EU Saritas**, K-P Hwang, ET Han, JH Lee, DG Nishimura and A Shankaranarayanan. “Comparison of Reduced-FOV Single-Shot EPI Methods for DWI: ZOOM-EPI vs. 2D Echo-Planar RF Excitation”. *Proc of the 17th Annual Meeting of ISMRM*, Honolulu, p.1379, April 2009.
66. G Zaharchuk, **EU Saritas**, A Shankaranarayan, DG Nishimura and NJ Fischbein. “Clinical Evaluation of Reduced Field-of-View Diffusion Imaging of the Human Spinal Cord”. *Proc of the 17th Annual Meeting of ISMRM*, Honolulu, p.3180, April 2009.
67. **EU Saritas**, JH Lee and DG Nishimura. “Effects of T₂-Weighting on Optimum b-Value vs. SNR for ADC Measurements”. *Proc of the 16th Annual Meeting of ISMRM*, Toronto, p.1798, May 2008.
68. **EU Saritas**, CH Cunningham, JH Lee, ET Han and DG Nishimura. “High-Resolution Axial DWI of the Spinal Cord with Reduced-FOV Single-Shot EPI”. *Proc of the 16th Annual Meeting of ISMRM*, Toronto, p.760, May 2008.
69. **EU Saritas**, JH Lee and DG Nishimura. “Optimum b-Value vs. SNR for Apparent Diffusion Coefficient Measurements”. *Proc of the 15th Annual Meeting of ISMRM*, Berlin, p.1508, May 2007.
70. **EU Saritas**, C.H. Cunningham, JH Lee and DG Nishimura. “DWI of the Spinal Cord with Limited FOV Single-Shot EPI”. *Proc of the 14th Annual Meeting of ISMRM*, Seattle, p.3446, May 2006.

INVITED TALKS

- “Manyetik Parcacik Goruntuleme: Demir Oksit Nanoparacaciklari ile Yeni Bir Biyomedikal Goruntuleme Teknolojisi”, 3. *Konsultasyon Liyezon Psikiyatrisi Sempozyumu*, Ankara University and Yildirim Beyazit University Medical Schools, Ankara, Turkey, 3 May 2017.
- “Case Study: FOCUS”, in **Educational Session** titled “Prototype to Product: Pathways to Commercialization”, *25th Annual Meeting of ISMRM*, Hawaii, USA, 26 April 2017.
- “Magnetic Particle Imaging”, in **Educational Session** titled “Low Field MR: Systems & Applications”, *25th Annual Meeting of ISMRM*, Hawaii, USA, 25 April 2017.
- “Magnetic Particle Imaging: A New Imaging Modality for Angiography, Cell Tracking, and Cancer Imaging”, *Institute of Neurological Sciences and Psychiatry*, Hacettepe University, Ankara, Turkey, 9 March 2017.
- “Biyomedikal Goruntuleme Teknolojilerinde Trendler ve Yenilikci Teknikler”, *FABAD (Farmasotik Bilimler Ankara Dernegi) Conference Series*, Hacettepe University, Ankara, Turkey, 15 December 2016.
- “Safety Limits in MPI and Implications for Image Quality”, **Keynote Speech**, *6th International Workshop on Magnetic Particle Imaging (IWMPi)*, Luebeck, Germany, March 16-18, 2016.
- “High Resolution Magnetic Particle Imaging”, Aselsan 1. Saglik Teknolojileri Calistayi, Ankara, Turkey, December 9, 2015.
- “High Resolution Diffusion MRI / Magnetic Particle Imaging”, *Emerging Concepts in Advanced Imaging of Neurodegenerative Diseases Workshop*, Istanbul, Turkey, October 18-20, 2015.
- “Yeni Bir Biyomedikal Goruntuleme Yontemi: Manyetik Parcacik Goruntuleme”, *Gulhane Biyomedikal Gunleri Ulusal Sempozyumu*, Ankara, Turkey, May 22, 2015.
- “Yeni Bir Biyomedikal Goruntuleme Teknigi: Manyetik Parcacik Goruntuleme”, *Bilkent Universitesi - ASO Saglik Odakli Universite Sanayi Isbirligi Calistayi*, Ankara, Turkey, April 2, 2015.
- “Applications of MRI: Diffusion Weighted Imaging”, *Nuclear Magnetic Resonance (NMR) Workshop*, Ankara, Turkey, October 10, 2013.
- “High-Resolution Diffusion MRI / Magnetic Particle Imaging”, *Koc University*, Istanbul, Turkey, September 10, 2012.
- “X-Space Magnetic Particle Imaging”, *Bioimaging Symposium*, Santa Clara University, August 17, 2012.
- “High-Resolution Diffusion MRI / Magnetic Particle Imaging”, *Middle East Technical University (METU)*, Ankara, Turkey, March 30, 2012.

- “High-Resolution Diffusion MRI / Magnetic Particle Imaging”, *Sabanci University*, Istanbul, Turkey, March 21, 2012.
- “High-Resolution Diffusion MRI / Magnetic Particle Imaging”, *Bogazici University*, Istanbul, Turkey, March 20, 2012.
- “High-Resolution Diffusion MRI / Magnetic Particle Imaging”, *Bilkent University*, Ankara, Turkey, July 19, 2011.
- “Stem Cell Tracking with Magnetic Particle Imaging: Early Data and Safety Limits”, *Berkeley Stem Cell Center Retreat*, Asilomar, CA, May 1, 2011.
- “High-Resolution Diffusion MRI with Reduced-FOV Single-Shot EPI”, *University of California at San Francisco*, CA, June 17, 2010.

CONFERENCE ORGANIZATION

- Conference Chair, *5th International Workshop on Magnetic Particle Imaging*, Istanbul, Turkey, March 2015. (website: www.iwmpi.org)
- Organizing Committee Member and Scientific Committee Member, *Third Magnetic Resonance Balkan Outreach Program*, Ankara, Turkey, 22-24 May 2014. (website: www.mrbalkan.org)
- General Chair, *25th Graduate Research Conference*, Department of Electrical and Electronics Engineering, Bilkent University, 14 March 2014.
- Co-chair and Publications Chair, *3rd International Workshop on Magnetic Particle Imaging*, Berkeley, CA, 23-24 March 2013. (website: iwmpi.berkeley.edu)

CONFERENCE COMMITTEES

- Program Committee Member, *8th International Workshop on Magnetic Particle Imaging*, Hamburg, Germany, 22-24 March 2018.
- Technical Committee Member, *IEEE 25th Signal Processing and Communication Applications General Assembly (SIU 2017)*, Antalya, Turkey, 15-18 May 2017.
- Program Committee Member, *7th International Workshop on Magnetic Particle Imaging*, Prague, Czech Republic, 23-24 March 2017.
- Program Committee Member, *6th International Workshop on Magnetic Particle Imaging*, Luebeck, Germany, 16-18 March 2016.
- Technical Committee Member, *IEEE 23rd Signal Processing and Communication Applications General Assembly (SIU 2015)*, Malatya, Turkey, 16-19 May 2015.
- Technical Committee Member, *IEEE 22nd Signal Processing and Communication Applications General Assembly (SIU 2014)*, Trabzon, Turkey, 23-25 April 2014.
- Program Committee Member, *4th International Workshop on Magnetic Particle Imaging*, Berlin, Germany, 27-29 March 2014.

ACADEMIC JOURNAL REVIEWERSHIP

- *IEEE Transactions on Medical Imaging*.
- *Magnetic Resonance in Medicine (MRM)*.
- *IEEE Transactions on Magnetics*.
- *Journal of Magnetic Resonance Imaging (JMRI)*.
- *NMR in Biomedicine*.
- *Medical Physics*.
- *Physics in Medicine and Biology*.
- *Nanoscale, Royal Society of Chemistry*.
- *PLOS ONE*.
- *Signal, Image, and Video Processing (SIVP)*.
- *Diagnostic and Interventional Radiology*.
- *TUBITAK - Turkish Journal of Electrical Engineering & Computer Sciences*

MEMBERSHIPS

- International Society of Magnetic Resonance in Medicine (ISMRM), since 2003.
- Institute of Electrical and Electronics Engineering (IEEE), since 1999.
- Turk Manyetik Rezonans Dernegi (Turkish Magnetic Resonance Society), since 2014.

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