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CURRICULUM VITAE

Hahnsung Kim, Ph.D.

Present Position (2015 -)

Postdoctoral Research Fellow (Supervisor: Jaeseok Park, Ph.D.)
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Major Research Interests

The objective of my research is to develop novel magnetic resonance imaging methodologies in the side of physics and signal processing. Specific research interests include: 1) pulse sequence design for highly efficient structural and functional imaging, 2) novel endogenous contrast mechanisms, and 3) physiolgical parameter estimation.

Education

Ph.D.	Department of Electrical-Electronic Engineering, Yonsei University, Seoul, Republic of Korea, 2015 Dissertation: Rapid, High-Resolution Volumetric Magnetic Resonance Imaging (Advisor: Dong-Hyun Kim, Ph.D.)
BS.	Department of Electrical-Electronic Engineering, Department of Biotechnology Engineering, (Double Major) Yonsei University, Seoul, Republic of Korea, 2007

Experiences

1. Postdoctoral Fellow in Center for Neuroscience Imaging Research (CNIR) in Sungkyunkwan University, 2015~ present
2. Technical Cooperation Project with Siemens, Erlangen, Germany
   Title: Metal Artifact Correction (SEMAC pulse sequence development); 2009-2010
3. Graduate Research Assistant, Departments of Electrical-Electronic Engineering, Yonsei University, Seoul, Republic of Korea; 2008 - 2010

Professional Societies and Organizations

1. Member of International Society for Magnetic Resonance in Medicine (ISMRM); 2008 – Present
2. Member of Korean Society for Magnetic Resonance in Medicine (KSMRM); 2008 – Present
3. Adhoc Reviewer for Magnetic Resonance in Medicine (MRM); 2011 – Present
4. Adhoc Reviewer for Journal of Magnetic Resonance Imaging (JMRI): 2013 – Present

5. Reviewer for Biomedical Engineering Letters (BMEL);
   2015 – Present

Honors and Awards

1. Magna Cum Laude Merit Award for Outstanding Abstract, 20th ISMRM, Melbourne, Australia, 2012
   Abstract Title: “Image denoising exploiting sparsity and low rank approximation (DSLR) in slide encoding for metal artifact correction”
2. Student Stipend Award, International Society for Magnetic Resonance In Medicine (MRM): 2009, 2011, 2012
3. Brain Korea 21 (BK21) Project Scholarships through NRF, 2008-2014

Peer-Reviewed Journal Papers

1. **Hahnsung Kim**, Dong-Hyun Kim, Jaeseok Park*, “Variable-Flip-Angle Single-Slab 3D GRASE Imaging with Phase-Independent Image Reconstruction”, Magnetic Resonance in Medicine, 2015, 73: 1041-1052
2. Yoonho Nam, **Hahnsung Kim**, Sang-Yong Zho, Dong-Hyun Kim*, “Background Gradient Correction using Excitation Pulse Profile for Fat and T_2* Quantification in 2D Multi-Slice Liver Imaging”, Journal of the Korean Society of Magnetic Resonance in Medicine, 2012, 16(1): 175-180
3. Sejung Yang, **Hahnsung Kim**, Min-Oh Kim, Byung-Uk Lee, Dong-Hyun Kim*, “Local in vivo Shimming using Adaptive Passive Shim Positioning”, Magnetic Resonance Imaging, 2011, 29: 401-407

Patents

1. Method and apparatus of robust magnetic resonance susceptibility imaging. J Park, **H Kim**. Application number: 10-2013-0035267
2. Method and apparatus of fast and low energy hybrid Magnetic Resonance Imaging Technique with phase-independent image reconstruction. J Park, **H Kim**. Application number: 10-2012-0021249
3. MRI apparatus. D-H Kim, **H Kim**, M-O Kim, S-W Yang. Application number: 10-2009-0083467, Date of filling: 2009-09-04, Issue date: 2011-10-05
4. Ear cover for MRI. D-H Kim, **H Kim**, M-O Kim, S Yang, S-W Yang, W-H Cho. Application number: 10-2009-0074727, Date of filling: 2009-08-13, Issue date: 2012-02-14
5. Driver device for magnetic resonance elastography, D-H Kim, W-H Cho, K-H Kim, **H Kim**, S-Y Cho, Mj Kim, Application number: 10-2007-0124531, Date of filling: 2007-12-03, Issue date: 2009-04-14

Peer-Reviewed Conference Proceedings

1. **Hahnsung Kim**, Jaeseok Park. “Rapid Water-Fat Separation using 3D VFA GRASE with Phase-Independent Reconstruction”, 24th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Singapore.
2. **Hahnsung Kim**, Dong-Hyun Kim, and Jaeseok Park. “Robust Susceptibility Weighted Imaging using Single-Slab 3D GRASE with Removal of Background Phase Variation”.

21st Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Salt Lake City, USA, p2514.

3. **Hahnsung Kim**, Dong-Hyun Kim, Jaeseok Park. “Highly accelerated single-slab 3D GRASE with phase-independent image reconstruction”, 20th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Melbourne, Australia, p2503, 2012
4. Sangcheon Choi, **Hahnsung Kim**, Jaeseok Park. “Image denoising exploiting sparsity and low rank approximation (DSLR) in slide encoding for metal artifact correction”, 20th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Melbourne, Australia, p221, 2012
5. **Hahnsung Kim**, Suhyung Park, Dong-Hyun Kim, Jaeseok Park. “Variable flip angle single-slab 3D GRASE with phase-independent image reconstruction”, 19th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Montreal, Quebec, Canada, p2720, 2011
6. Yoonho Nam, **Hahnsung Kim**, Dong-Hyun Kim. ”Background gradient correction for water and fat quantification in 2D liver imaging”, 18th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Stockholm, Sweden, p4640, 2010
7. Sung-Min Gho, Eung Yeop Kim, **Hahnsung Kim**, Dong-Hyun Kim. “DIR Imaging using compressed sensing for cortical thickness estimation”, 17th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Honolulu, Hawaii, USA, p1053, 2009
8. Sejung Yang, **Hahnsung Kim**, Sang-Young Zho, Byung-Uk Lee, Dong-Hyun Kim. ”Sample-specific passive shimming using optimization algorithm”, 17th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Honolulu, Hawaii, USA, p2788, 2009
9. **Hahnsung Kim**, Sang-Young Zho, Dong-Hyun Kim. “Respiration-induced B0 fluctuation of spine”, 17th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Honolulu, Hawaii, USA, p1301, 2009