Suhyung Park, *Ph.D.* *Associate Professor*

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MAJOR RESEARCH INTERESTS

The main objective of my research is to develop novel methodologies in signal processing and physics-based image reconstruction including pulse sequence, particularly focusing on magnetic resonance imaging. Specific research interests are: 1) Medical image reconstruction from incomplete measurements (e.g. Compressed Sensing: Sparse Coding and Low Rank), 2) Multiplexing Signal Processing (e.g. Simultaneous Multi-Slice Imaging). 3) Dynamic MRI (e.g. Cardiac Motion and Angiography), 4) Accelerated functional MRI for Neuroscientific Applications, 5) Phase-contrast flow imaging (e.g. Neurovascular and Heart Flow).

EDUCATION

2011-2015	**Ph.D.** in Department of Brain and Cognitive Engineering, College of Information and Communication, Korea University, Seoul Advisor: Dr. Jaeseok Park Dissertation: Accelerated Magnetic Resonance Imaging From Incomplete Measurements
2009-2011	**M.S.** in Department of Medical Sciences, Yonsei University, Seoul Advisor: Dr. Jin Suck Suh Dissertation: Adaptive Self-Calibrating Parallel Magnetic Resonance Imaging using Kalman Filter
2001-2008	**B.S.** in Department of Mechanical Engineering, College of Engineering, Hanyang University, Seoul, including Military Service (2002-2004)

EXPERIENCES

2024-Present	Associate Professor, Department of Electronics and Computer Engineering, Chonnam National University, Gwangju, Republic of Korea
2020-2024	Assistant Professor, Department of Computer Engineering, Chonnam National University, Gwangju, Republic of Korea
2017-2020	Postdoctoral Fellow, Helen Wills Neuroscience Institute, University of California, Berkeley, CA, USA (Advisor: David A. Feinberg)
2015-2017	Postdoctoral Fellow, Center for Neuroscience Imaging Research (CNIR), Sungkyunkwan University, Republic of Korea (Advisor: Dr. Jaeseok Park)

2014	General Electric (GE) Healthcare: Summer Research Internship in Applied Science Laboratory-west, Menlo Park, CA, USA (Advisor: Dr. Peng Lai)
2013-2014	Research Assistant, Biomedical Imaging and Engineering Laboratory, Department of Brain and Cognitive Engineering, Korea University, Seoul, Republic of Korea
2011	Graduate Teaching Assistant (Introduction to Medical Imaging taught by Professor Jaeseok Park), Department of Brain and Cognitive Engineering, Korea University, Seoul, Republic of Korea

PUBLICATIONS

- **Suhyung Park***, Alexander Beckett, Suvi Hakkinen, Samantha J. Ma, Sugil Kim, Hahn Sung Kim, and David A. Feinberg, "Higher Spatial Resolution and Sensitivity in Whole Brain Functional MRI at 7T using 3D EPI accelerated with Variable Density CAIPI Sampling and Temporal Random Walk", Magnetic Resonance in Medicine, (**First Author and Corresponding Author, IF: 3.0**), Accepted,

- David A. Feinberg, Alexander J.S. Beckett, An T. Vu, Bernhard Gruber, Jason Stockmann, Laurentius (Renzo) Huber, Samantha Ma, Sinyeob Ahn, Kawin Setsompop, Xiaozhi Cao, Rüdiger Stirnberg, **Suhyung Park**, et. al., "A Next Generation MRI scanner designed for ultra-high resolution human brain imaging at 7-Tesla", Nature Methods (**Co-Author, IF: 48**), 2023;20:2048-2057.

- Hahnsung Kim† , **Suhyung Park†**, Ranliang Hu, Kimberly B. Hoang, Phillip Zhe Sun*, "3D CEST MRI with an unevenly segmented RF irradiation scheme: A feasibility study in brain tumor imaging", Magnetic Resonance in Medicine (**†: Equally Contributed First Author, IF: 3.737**), 2023;90(6):2400-2410

- **Suhyung Park***, Jaeseok Park, “Global and Local Constrained Parallel MRI Reconstruction by Exploiting Dual Sparsity and Self-Consistency”, Biomedical Signal Processing and Control **(First Author and Corresponding Author, IF: 3.88, Ranking: 34/89, Engineering, Biomedical)**, 2021; 70: 102922.

- **Suhyung Park***, Alexander Beckett, Jennifer Townsend, and David A. Feinberg, “Sub-Millimeter Resolution Accelerated 3D GRASE for T2-weighted Functional MRI at 7 Tesla”, Magnetic Resonance in Medicine **(First Author and Corresponding Author, IF: 3.858, Ranking: 23/129, Nuclear Medicine & Medical Imaging)**, 2021; 85(5): 2490-2506.

- **Suhyung Park***, Liyong Chen, Jennifer Townsend, Hyunyeol Lee, and David A. Feinberg, “Simultaneous Multi-VENC (SMV) and Simultaneous Multi-Slice (SMS) Phase Contrast Magnetic Resonance Imaging”, IEEE Transactions on Medical Imaging **(First Author and Corresponding Author, IF: 7.816, Ranking: 3/129, Nuclear Medicine & Medical Imaging)**, 2020; 39(3): 742-752.