

Curriculum Vitae

XIAOPING WU
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Minneapolis, MN 55455
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Education

PhD, University of Minnesota, Minneapolis, MN, United States. January 2010
Biomedical Engineering
Dissertation/Thesis Title: Parallel Transmission for
Magnetic Resonance Imaging on a 9.4 Tesla Human
System
Advisor: Kamil Ugurbil, Pierre-Francois Van de Moortele
MS, Tsinghua University, Beijing, China. Engineering Physics July 2004
Advisor: Zhiqiang Chen
BS, Tsinghua University, Beijing, China. Engineering Physics July 2001

Academic Appointments

University of Minnesota
Medical School, Radiology: Tenure Track Assistant Professor 2017 - Present
University of Minnesota
Medical School, Radiology: Research Track Assistant Professor 2013 - 2017
University of Minnesota
Medical School, Radiology: Research Associate 2011 - 2013
University of Minnesota
Medical School, Radiology: Postdoctoral Associate 2010 - 2011

RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

Grants, Contract, Awards: External Sources

Award: Safe Magnetic Resonance Imaging of Patients with Deep Brain Stimulation Systems

Principal Investigator: Eryaman, Yigitcan

Status: Accepted

Sponsoring Organization: NIH NAT INST OF NEURO DISORDERS & STROKE

Award Dates: August 1, 2020 - July 31, 2025

Project: Safe Magnetic Resonance Imaging of Patients with Deep Brain Stimulation Systems

Project Team: Xiaoping Wu (Co-Investigator), Alexander McKinney (Co-Investigator), Kamil Ugurbil (Co-Investigator), Noam Harel (Co-Investigator), Yigitcan Eryaman (Principal)

Status: Approved

Project Dates: August 1, 2020 - July 31, 2025

Award: Technology to Realize the Full Potential of UHF MRI

Principal Investigator: Ugurbil, Kamil
Status: Accepted
Sponsoring Organization: NIH NATL INST OF BIOMEDICAL IM
Award Dates: February 1, 2019 - January 31, 2024

Project: Technology to Realize the Full Potential of UHF MRI

Project Team: Xiaoping Wu (Co-Investigator), Gregory Metzger (Co-Investigator), Gregor Adriany (Co-Investigator), Edward Auerbach (Co-Investigator), Kamil Ugurbil (Principal), Michael Garwood (Co-Investigator), Wei Chen (Co-Investigator), Patrick Bolan (Co-Investigator), Pierre-Francois Van de Moortele (Co-Investigator), Shalom Michaeli (Co-Investigator), Malgorzata Marjanska (Co-Investigator), Steen Moeller (Co-Investigator), Geoffrey Ghose (Co-Investigator), Silvia Mangia (Co-Investigator), Yigitcan Eryaman (Co-Investigator), Mehmet Akcakaya (Co-Investigator), Ben Hayden (Co-Investigator)
Status: Approved
Project Dates: February 1, 2019 - January 31, 2024

Award: Elementary Neuronal Ensembles to Whole Brain Networks: Ultrahigh Resolution Imaging of Function and Connectivity in Humans

Principal Investigator: Ugurbil, Kamil
Status: Accepted
Sponsoring Organization: NIH NATL INST OF BIOMEDICAL IM
Award Dates: September 30, 2017 - June 30, 2022

Project: Elementary Neuronal Ensembles to Whole Brain Networks: Ultrahigh Resolution Imaging of Function and Connectivity in Humans

Project Team: Xiaoping Wu (Co-Investigator), Gregor Adriany (Co-Investigator), Edward Auerbach (Co-Investigator), Kamil Ugurbil (Principal), Pierre-Francois Van de Moortele (Co-Investigator), Steen Moeller (Co-Investigator), Christophe Lenglet (Co-Investigator), Mehmet Akcakaya (Co-Investigator), Kendrick Kay (Co-Investigator)
Status: Approved
Project Dates: September 30, 2017 - June 30, 2022

Pending/Submitted:

Proposal: CLINICAL IMAGING OF THE PROSTATE AT 7 TESLA

Role: Co-Investigator
Proposal ID: CON00000083133
Status: Submitted
Sponsoring Organization: NATIONAL INSTITUTES OF HEALTH (NIH)
Date Submitted: October 7, 2019
Purpose: Research

Publications

Asterisk() - indicates co-first author*

Underline - indicates student author

Peer-Reviewed Journal Article

Ma, X., Ugurbil, K., & Wu, X. (2020). Denoise magnitude diffusion magnetic resonance images

- via variance -stabilizing transformation and optimal singular -value manipulation. *NEUROIMAGE*, 215. doi: [10.1016/j.neuroimage.2020.116852](https://doi.org/10.1016/j.neuroimage.2020.116852)
Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.
- He, X., Erturk, M. A., Grant, A., Wu, X., Lagore, R. L., DelaBarre, L., . . . Metzger, G. J. (2020). First in-vivo human imaging at 10.5T: Imaging the body at 447 MHz. *MAGNETIC RESONANCE IN MEDICINE*, 84(1), 289-303. doi: [10.1002/mrm.28131](https://doi.org/10.1002/mrm.28131)
Defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript editing and review.
- Sadeghi-Tarakameh, A., DelaBarre, L., Lagore, R. L., Torrado-Carvajal, A., Wu, X., Grant, A., . . . Eryaman, Y. (2020). In vivo human head MRI at 10.5T: A radiofrequency safety study and preliminary imaging results. *MAGNETIC RESONANCE IN MEDICINE*, 84(1), 484-496. doi: [10.1002/mrm.28093](https://doi.org/10.1002/mrm.28093)
Conducted literature research and experimental studies; data acquisition; manuscript editing and review.
- Moeller, S., Ramanna, S., Lenglet, C., Pisharady, P. K., Auerbach, E. J., Delabarre, L., . . . Ugurbil, K. (2020). Self-navigation for 3D multishot EPI with data-reference. *MAGNETIC RESONANCE IN MEDICINE*, 84(4), 1747-1762. doi: [10.1002/mrm.28231](https://doi.org/10.1002/mrm.28231)
Defined intellectual content; conducted literature research and experimental studies; manuscript editing and review.
- Gras, V., Poser, B. A., **Wu, X.**, Tomi-Tricot, R., & Boulant, N. (2019). Optimizing BOLD sensitivity in the 7T Human Connectome Project resting-state fMRI protocol using plug-and-play parallel transmission. *NeuroImage*, 195, 1-10. doi: [10.1016/j.neuroimage.2019.03.040](https://doi.org/10.1016/j.neuroimage.2019.03.040)
Developed study design; defined intellectual content; conducted literature research; manuscript editing and review.
- Uğurbil, K., Auerbach, E., Moeller, S., Grant, A., **Wu, X.**, Van de Moortele, P. F., . . . Adriany, G. (2019). Brain imaging with improved acceleration and SNR at 7 Tesla obtained with 64-channel receive array. *Magnetic resonance in medicine*. doi: [10.1002/mrm.27695](https://doi.org/10.1002/mrm.27695)
Conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.
- Wu, X. (Corresponding Author)**, Auerbach, E. J., Vu, A. T., Moeller, S., Van de Moortele, P. F., Yacoub, E., & Uğurbil, K. (2019). Human Connectome Project-style resting-state functional MRI at 7 Tesla using radiofrequency parallel transmission. *NeuroImage*, 184, 396-408. doi: [10.1016/j.neuroimage.2018.09.038](https://doi.org/10.1016/j.neuroimage.2018.09.038)
Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.
- Wu, X. (Corresponding Author)**, Auerbach, E. J., Vu, A. T., Moeller, S., Lenglet, C., Schmitter, S., . . . Uğurbil, K. (2018). High-resolution whole-brain diffusion MRI at 7T using radiofrequency parallel transmission. *Magnetic resonance in medicine*, 80(5), 1857-1870. doi: [10.1002/mrm.27189](https://doi.org/10.1002/mrm.27189)
Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.
- Jang, A., **Wu, X.**, Auerbach, E. J., & Garwood, M. (2018). Designing 3D selective adiabatic radiofrequency pulses with single and parallel transmission. *Magnetic resonance in medicine*, 79(2), 701-710. doi: [10.1002/mrm.26720](https://doi.org/10.1002/mrm.26720)
Conducted literature research and experimental studies; data acquisition; manuscript editing and review.
- Schmitter, S., Moeller, S., **Wu, X.**, Auerbach, E. J., Metzger, G. J., Van de Moortele, Pierre-Francois, & Ugurbil, K. (2017). Simultaneous Multislice Imaging in Dynamic Cardiac MRI at

- 7T Using Parallel Transmission. *MAGNETIC RESONANCE IN MEDICINE*, 77(3), 1010-1020. [doi: 10.1002/mrm.26180](https://doi.org/10.1002/mrm.26180)
Defined intellectual content; conducted literature research; manuscript editing and review.
- Ertürk, M. A., **Wu, X.**, Eryaman, Y., Van de Moortele, P. F., Auerbach, E. J., Lagore, R. L., . . . Metzger, G. J. (2017). Toward imaging the body at 10.5 tesla. *Magnetic resonance in medicine*, 77(1), 434-443. [doi: 10.1002/mrm.26487](https://doi.org/10.1002/mrm.26487)
Conducted literature research; data acquisition; manuscript preparation, editing and review.
- Wu, X. (Corresponding Author)**, Tian, J., Schmitter, S., Vaughan, J. T., Uğurbil, K., & Van de Moortele, P. F. (2016). Distributing coil elements in three dimensions enhances parallel transmission multiband RF performance: A simulation study in the human brain at 7 Tesla. *Magnetic resonance in medicine*, 75(6), 2464-72. [doi: 10.1002/mrm.26194](https://doi.org/10.1002/mrm.26194)
Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.
Sum of times cited is based on Google Scholar.
- Wu, X.**, Schmitter, S., Auerbach, E. J., Uğurbil, K., & Van de Moortele, P. F. (2016). A generalized slab-wise framework for parallel transmit multiband RF pulse design. *Magnetic resonance in medicine*, 75(4), 1444-56. [doi: 10.1002/mrm.25689](https://doi.org/10.1002/mrm.25689)
Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.
- Boulant, N., **Wu, X.**, Adriany, G., Schmitter, S., Uğurbil, K., & Van de Moortele, P. F. (2016). Direct control of the temperature rise in parallel transmission by means of temperature virtual observation points: Simulations at 10.5 Tesla. *Magnetic resonance in medicine*, 75(1), 249-56. [doi: 10.1002/mrm.25637](https://doi.org/10.1002/mrm.25637)
Conducted literature research; manuscript editing and review.
- Wu, X. (Corresponding Author)**, Zhang, X., Tian, J., Schmitter, S., Hanna, B., Strupp, J., . . . Van de Moortele, P. F. (2015). Comparison of RF body coils for MRI at 3T: a simulation study using parallel transmission on various anatomical targets. *NMR in biomedicine*, 28(10), 1332-44. [doi: 10.1002/nbm.3378](https://doi.org/10.1002/nbm.3378)
Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.
- Schmitter, S., **Wu, X.**, Uurbil, K., & Van De Moortele, P. F. (2015). Design of parallel transmission radiofrequency pulses robust against respiration in cardiac MRI at 7 Tesla. *Magnetic Resonance in Medicine*, 74(5), 1291-1305. [doi: 10.1002/mrm.25512](https://doi.org/10.1002/mrm.25512)
Defined intellectual content; conducted literature research; manuscript editing and review.
- Schmitter, S., **Wu, X.**, Auerbach, E. J., Adriany, G., Pfeuffer, J., Hamm, M., . . . van de Moortele, P. F. (2014). Seven-tesla time-of-flight angiography using a 16-channel parallel transmit system with power-constrained 3-dimensional spoke radiofrequency pulse design. *Investigative radiology*, 49(5), 314-25. [doi: 10.1097/RLI.0000000000000033](https://doi.org/10.1097/RLI.0000000000000033)
Defined intellectual content; conducted literature research and experimental studies; manuscript editing and review.
- Schmitter, S., **Wu, X.**, Adriany, G., Auerbach, E. J., Uğurbil, K., & Moortele, P. F. (2014). Cerebral TOF angiography at 7T: Impact of B1 (+) shimming with a 16-channel transceiver array. *Magnetic resonance in medicine*, 71(3), 966-77. [doi: 10.1002/mrm.24749](https://doi.org/10.1002/mrm.24749)
Conducted literature research; manuscript editing and review.
- Wu, X.**, Schmitter, S., Auerbach, E. J., Uğurbil, K., & Van de Moortele, P. F. (2014). Mitigating transmit B 1 inhomogeneity in the liver at 7T using multi-spoke parallel transmit RF pulse design. *Quantitative imaging in medicine and surgery*, 4(1), 4-10. [doi: 10.3978/j.issn.2223-](https://doi.org/10.3978/j.issn.2223-)

[4292.2014.02.06](#)

Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.

Sum of Times Cited is based on Google Scholar.

Wu, X., Adriany, G., Ugurbil, K., & Van de Moortele, Pierre-Francois (2013). Correcting for Strong Eddy Current Induced B0 Modulation Enables Two-Spoke RF Pulse Design with Parallel Transmission: Demonstration at 9.4T in the Human Brain. *PLOS ONE*, 8(10). [doi: 10.1371/journal.pone.0078078](#)

Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.

Schmitter, S., DelaBarre, L., **Wu, X.**, Greiser, A., Wang, D., Auerbach, E. J., . . . Van de Moortele, P. F. (2013). Cardiac imaging at 7 Tesla: Single- and two-spoke radiofrequency pulse design with 16-channel parallel excitation. *Magnetic resonance in medicine*, 70(5), 1210-9. [doi: 10.1002/mrm.24935](#)

Developed study concept; defined intellectual content; manuscript preparation, editing and review.

Uğurbil, K., Xu, J., Auerbach, E. J., Moeller, S., Vu, A. T., Duarte-Carvajalino, J. M., . . . Yacoub, E. (2013). Pushing spatial and temporal resolution for functional and diffusion MRI in the Human Connectome Project. *NeuroImage*, 80, 80-104. [doi: 10.1016/j.neuroimage.2013.05.012](#)

Conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.

Wu, X., Schmitter, S., Auerbach, E. J., Moeller, S., Uğurbil, K., & Van de Moortele, P. F. (2013). Simultaneous multislice multiband parallel radiofrequency excitation with independent slice-specific transmit B1 homogenization. *Magnetic resonance in medicine*, 70(3), 630-8. [doi: 10.1002/mrm.24828](#)

Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.

Wu, X., Akgün, C., Vaughan, J. T., Andersen, P., Strupp, J., Uğurbil, K., & Moortele, P. F. (2010). Adapted RF pulse design for SAR reduction in parallel excitation with experimental verification at 9.4T. *Journal of magnetic resonance*, 205(1), 161-170. [doi: 10.1016/j.jmr.2010.04.018](#)

Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.

Wu, X., Vaughan, J. T., Uğurbil, K., & Van de Moortele, P. F. (2010). Parallel excitation in the human brain at 9.4 T counteracting k-space errors with RF pulse design. *Magnetic resonance in medicine*, 63(2), 524-9. [doi: 10.1002/mrm.22247](#)

Guarantor of integrity of entire study; developed study concept and design; defined intellectual content; conducted literature research and experimental studies; data acquisition; manuscript preparation, editing and review.

Review

Moeller, S., Pisharady Kumar, Pramod, Andersson, J., Akcakaya, M., Harel, N., Ma, Ruoyun(Emily), . . . Ugurbil, K. (2020). *Diffusion Imaging in the Post-HCP Era*. JOURNAL OF MAGNETIC RESONANCE IMAGING. [doi: 10.1002/jmri.27247](#)

Conducted literature research and experimental studies; data acquisition; manuscript editing and review.

Patents and Intellectual Property

Systems and Methods for Designing Magnetic Resonance Imaging Radio Frequency Pulses That are robust against physiological motion Errors. Issued: April 2, 2019

Multiband RF/MRI Pulse Design for Multichannel Transmitter. Issued: December 17, 2015

Invited Presentations, Posters, and Exhibits

Asterisk() - indicates student co-presenter*

Didactic Seminar

Wu, X. "Human Connectome Project-style diffusion and functional MRI at 7 Tesla through RF parallel transmission," Seminar at Institute of Biophysics Chinese Academy of Sciences Institute of Biophysics Chinese Academy of Sciences, Beijing, China. (March 15, 2018). *Invited.*

Wu, X. "Human Connectome Project-style diffusion and functional MRI at 7 Tesla through RF parallel transmission," Seminar at Tsinghua University Tsinghua University, Beijing, China. (March 14, 2018). *Invited.*

Wu, X. "Human Connectome Project-style diffusion and functional MRI at 7 Tesla through RF parallel transmission," Seminar at Fudan University Fudan University, Shanghai, China. (March 12, 2018). *Invited.*

Wu, X. "Human Connectome Project-style diffusion and functional MRI at 7 Tesla through RF parallel transmission," Seminar in Biomedical Engineering at University of Minnesota Biomedical Engineering at University of Minnesota, Minneapolis, Minnesota, United States. (November 20, 2017). *Invited.*

Wu, X. "Human Connectome Project-style diffusion and functional MRI at 7 Tesla through RF parallel transmission," Seminar in USC Stevens Neuroimaging and Informatics Institute, USC USC Stevens Neuroimaging and Informatics Institute, USC, Los Angeles, California, United States. (July 2017). *Invited.*

Wu, X. "Parallel transmission pulse design: how to," Seminar at Institute of Biophysics Chinese Academy of Sciences Institute of Biophysics Chinese Academy of Sciences, Beijing, China. (May 2016). *Invited.*

Lecture

Wu, X. "Getting What You Want: Managing the Mayhem," Educational course ISMRM 26th Annual Meeting and Exhibition Educational Course Primer for Ultrahigh Field MRI, Paris, France. (June 19, 2018). *Invited.*

Presentation/Talk

Wu, X. "Parallel Transmit Functionality and Building a User Friendly Workflow," Toward the Clinical Translation of UHF MRI CTSI and CMRR at University of Minnesota, Minneapolis, Minnesota, United States. (November 19, 2019). *Invited.*

Wu, X. "Parallel transmission at 10.5 T: The MR physics perspective," Member Initiated Symposium ISMRM 26th Annual Meeting and Exhibition Member Initiated Symposium "From ultrahigh to extreme field MR: Where physics, engineering, physiology and medicine meet", Paris, France. (June 21, 2018). *Invited.*

Wu, X. "Human Connectome Project-style diffusion and functional MRI at 7 Tesla through RF parallel transmission," Minnesota Workshop on High and Ultrahigh Field Imaging and Training Courses CMRR at University of Minnesota, Minneapolis, Minnesota, United States. (October 7, 2017). *Invited.*

Presentations, Posters, and Exhibits

Asterisk() - indicates student co-presenter*

Poster

- Wu, X.**, Ugurbil, K. "Denoise magnitude diffusion magnetic resonance images via variance-stabilizing transformation and optimal singular-value manipulation," ISMRM 2020 Virtual Annual Meeting and Exhibition ISMRM. (August 14, 2020).
- Wu, X.**, Auerbach, E. J., Vu, A., Moeller, S., Van de Moortele, P.-F., Yacoub, E. S., Ugurbil, K. "Human Connectome Project (HCP)-style resting state functional MRI at 7 Tesla using RF parallel transmission," ISMRM 26th Annual Meeting and Exhibition ISMRM, Paris, France. (June 21, 2018).
- Wu, X.**, Auerbach, E. J., Vu, A., Moeller, S., Van de Moortele, P.-F., Yacoub, E. S., Ugurbil, K. "High resolution resting state functional MRI at 7 Tesla using RF parallel transmission," ISMRM 25th Annual Meeting and Exhibition ISMRM, Honolulu, Hawaii, United States. (April 22, 2017).

Presentation/Talk

- Pan, Z.*, Guo, H., Dai, E., Auerbach, E. J., Ugurbil, K., **Wu, X.** "Coil-joint-split N/2 Ghost Correction and Joint L1-SPIRiT for SMS-EPI Reconstruction: Demonstration Using 7T HCP-style Diffusion Acquisition," 2020 ISMRM & SMRT VIRTUAL CONFERENCE & EXHIBITION ISMRM. (August 14, 2020).
- Wu, X.**, Auerbach, E. J., Ugurbil, K. "Submillimeter whole brain diffusion MRI at 7 Tesla using simultaneous multislice imaging," ISMRM 27th Annual Meeting and Exhibition ISMRM, Montreal, Canada. (May 16, 2019).
- Wu, X.**, Gras, V., Vignaud, A., Mauconduit, F., Boland, M., Stoecker, T., Ugurbil, K., Boulant, N. "The travelling pulses: multicenter evaluation of universal pulses at 7T," ISMRM 26th Annual Meeting and Exhibition ISMRM, Paris, France. (June 21, 2018).
- Wu, X.**, Auerbach, E. J., Vu, A., Moeller, S., Lenglet, C., Schmitter, S., Van de Moortele, P.-F., Yacoub, E. S., Ugurbil, K. "High resolution whole brain diffusion MRI at 7 Tesla using RF parallel transmission," ISMRM 25th Annual Meeting and Exhibition ISMRM, Honolulu, Hawaii, United States. (April 22, 2017).
- Wu, X.**, Boulant, N., Gras, V., Tian, J., Schmitter, S., Van de Moortele, P.-F., Ugurbil, K. "High resolution whole-brain diffusion MRI at 7 Tesla using parallel RF transmission: how fast can we go?," ISMRM 24th Annual Meeting and Exhibition ISMRM, Singapore, Singapore. (May 7, 2016).

TEACHING

Instructional Activity

University of Minnesota

Guest Lecture, High-Field Parallel Transmission and Engineering November 13, 2019
at 2019 MN UHF workshop, Coordinator, lecturer, lab leader

This was one of the training courses offered by us at 2019 Minnesota Workshop on High and Ultrahigh Field Imaging and Training Courses. In addition to leading a scanner demo at 10.5T, I gave a lecture entitled "pTx Pulse Design".

Guest Lecture, MPHY8147 "Advanced Magnetic Resonance February 26, 2019

Imaging & Spectroscopy"

I delivered a lecture entitled "Dynamic RF shimming".

Guest Lecture, High-Field Parallel Transmission and Engineering at 2017 MN UHF workshop, Coordinator, lecturer, lab leader October 4, 2017

This was one of the training courses offered by us at 2017 Minnesota Workshop on High and Ultrahigh Field Imaging and Training Courses. In addition to leading two scanner demos (one at 7T and the other at 10.5T), I gave two lectures entitled "Co-Simulation: What is it about?" and "Transmit SENSE".

Guest Lecture, Imaging Methods for the Connectome Projects at 2017 MN UHF workshop October 3, 2017

This was one of the training courses offered by us at 2017 Minnesota Workshop on High and Ultrahigh Field Imaging and Training Courses. I delivered one lecture entitled "Human Connectome Project-style diffusion and functional MRI at 7 Tesla through RF parallel transmission".

ADVISING AND MENTORING

Graduate Student Activities

Committee Advising

Doctoral Final Committee: Committee Reviewer

Myung Kyun Woo, Medical Physics Ph D 2020
Thesis: Optimized Human head array design for 10.5T MRI

Doctoral Preliminary Committee: Committee Member

Myung Kyun Woo, Medical Physics Ph D 2018 - 2020

Thesis: Optimized Human head array design for 10.5T MRI

Joshua Punnoose, Biomedical Engineering Ph D 2019 - Present

Master's Thesis/Research Committee: Committee Member

Myung Kyun Woo, Medical Physics M S 2018 - 2019