Staff Engineer: MRI Pulse Sequences and Image Reconstruction Algorithms

The Position:
Dr. Dylan Tisdall is recruiting a Staff Engineer to join the Center for Advanced MR Imaging and Spectroscopy at the University of Pennsylvania (https://www.med.upenn.edu/camris) developing novel MRI pulse sequences and image reconstruction methods. The Engineer will work in close collaboration with research labs within the Perelman School of Medicine, and external collaborator labs, to help develop, validate, and support novel pulse sequences including advanced arterial spin labelling (ASL), volumetric navigators (vNavs) motion correction methods, and ex vivo MR microscopy of human tissue at 7T and 9.4T. The Engineer will also work in close collaboration with on-site Siemens research engineers, who are integrated into technology development and translational imaging projects at Penn.

Neuroimaging Research at Penn:
The University of Pennsylvania hosts a diverse research program in neuroscience and neuroimaging, with a strong emphasis on cross-department collaboration. This staff position will be located in the historic Richards Biomedical Research Building (a.k.a, “The Brainspace”), which was recently renovated to house neuroscience and neuroimaging researchers affiliated with Perelman School of Medicine, and is centrally located on Penn’s urban campus. Our research-dedicated MRI instrumentation includes three 3T Siemens Prisms, one 7T Siemens Terra, and a 9.4T Bruker small-bore scanner, along with research-shared 1.5T and 3T scanners in the adjacent adult hospital, which are readily accessible from the Richards Building.

Penn and Philadelphia:
The University of Pennsylvania has had a major role in American medicine, including the nation’s first hospital (Pennsylvania Hospital, 1751), first medical school (1765), and first university hospital (1874). Philadelphia is one of the 10 largest metropolitan areas in the USA, with a lively cultural and restaurant scene and an affordable cost of living. Both New York City and Washington D.C. are easy daytrips by train or car, as are the popular Atlantic Ocean beaches in New Jersey and Delaware, the Chesapeake Bay, and the Pocono mountains.

Qualifications:
Applicants should have a PhD in Biomedical Engineering, Computer Science, Electrical Engineering, or a related field. Experience with MRI pulse sequence development and/or reconstruction, particularly in the Siemens IDEA environment, is essential to this position. Experience with Python, Julia, Matlab, or other tools for rapid prototyping and data analysis is also desired. Communication, documentation, and software engineering skills are all highly valued, as this will be a highly collaborative role.

Applying:
The University of Pennsylvania is an equal opportunity employer; women and members of other underrepresented populations in science and engineering are particularly encouraged to apply. Please apply via the University of Pennsylvania portal (http://bit.ly/UPennMRIEngineer). If you have questions about the position, please contact Dr. Dylan Tisdall (mtisdall@pennmedicine.upenn.edu).