

A postdoc position is available in the x-ray CT group of Division of Medical Imaging Physics, Department of Radiology, Johns Hopkins University. There are two candidate projects which are hot topics in CT community: (1) energy-resolved photon counting CT imaging, and (2) four-dimensional image reconstruction methods using motion estimation and compensation. In general, our group aims at developing algorithms which scientifically sound and also have practical values. Through our research, we wish to make a strong impact in both academia and industry. The Principal Investigator, Katsuyuki “Ken” Taguchi, Ph.D., has more than 14 years of experience in industry and 9 years in academia and understands nuts and bolts of clinical x-ray CT systems in hospitals. Several algorithms he developed have been implemented in the CT systems. With this strong background, we provide a unique and ideal opportunity for postdoctoral training.

The candidate should have background in electrical engineering, biomedical engineering, computer science, medical physics, or a related field. A good personality and communication skills are also essential. Please contact Ken Taguchi ([ktaguchi@jhmi.edu](mailto:ktaguchi@jhmi.edu)) for more information.

These are representative papers of the two projects.

Vision 20/20: Single photon counting x-ray detectors in medical imaging  
Katsuyuki Taguchi and Jan S. Iwaczyk  
Med. Phys. 40, 100901 (2013)

<http://scitation.aip.org/content/aapm/journal/medphys/40/10/10.1118/1.4820371>

A fully four-dimensional, iterative motion estimation and compensation method for cardiac CT  
Qiulin Tang, Jochen Cammin, Somesh Srivastava and Katsuyuki Taguchi  
Med. Phys. 39, 4291 (2012)

<http://scitation.aip.org/content/aapm/journal/medphys/39/7/10.1118/1.4725754>