The Deep Learning: Recent Application in Medical Imaging

This talk will present an overview of Deep Learning (DL) and discuss some recent successful applications in medical imaging. One aim is to draw connections between DL methods such as convolutional neural network (CNN), convolutional encoder-decoder (CED), cycle-consistent adversarial neural network (Cycle-GAN) and medical applications including image reconstruction, multi-modality image synthesis, image segmentation and computer-assisted image diagnosis. Dr. Liu will present some of his recent work using DL for medical imaging applications and will discuss relevant DL methods and their strengths and limitations. The talk will conclude with a discussion of open problems in DL that are particularly relevant in medical imaging and the potential challenges of DL in this emerging field.