CMAI: Artificial Intelligence Colloquium Series

The Chinese University of Hong Kong

This CMAI AI Colloquium Series is organized by Centre for Mathematical Artificial Intelligence (CMAI), under Department of Mathematics at CUHK.

Date: Jan 31, 2024 (Wednesday)

Time: 10:00 am–12:00 pm (Hong Kong Time)

Zoom Link: 942 4090 0885

When PCD–CT meets AI: Enhancing Coronary Artery Disease Diagnosis

Prof: Shaojie Chang

Radiology

Abstract: Photon Counting Detector CT (PCD–CT) is a novel and recently FDA cleared medical imaging device, which can produce high resolution (HR) (down to 125 microns limiting spatial resolution) images from the scan. This provides new opportunities for many clinical areas, including cardiac CT, which can benefit from both high spatial and temporal resolution and multi–energy capability, especially in challenging scenarios involving the assessment of patients with dense calcifications and/or coronary stents. Artificial Intelligence (AI) has been achieved a great success in different applications. In this talk, we will discuss what will happen when the novel hardware PCD–

CT meets the high-performance software AI in Coronary Artery Disease (CAD) diagnosis.

Bio: Shaojie Chang obtained his PhD in Electronic and Information Engineering from Xi'an Jiaotong University in 2020. He then went on to become a postdoctoral researcher at Stony Brook University in 2021. In 2022, Dr. Chang joined the CT Clinical Innovation Center at Mayo Clinic as a research fellow. In 2024, he is appointed as an assistant professor of Radiology. His research focuses on various aspects of CT, including spectral CT image reconstruction, x-ray CT imaging physics, machine learning-based computer-aided diagnosis, and the clinical application of photon counting CT to cardiovascular disease states.