Joint CQSE and CASTS Seminar

Weekly Seminar
Sep. 29, 2017 (Friday)

TIME Sep. 29, 2017, 14:30 ~ 15:30
TITLE Positron emission tomography and the current research trends
SPEAKER Prof. Cheng-Ying Chou
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Abstract

Positron emission tomography (PET) is an essential imaging modality to quantitatively recover tracer distributions and underlying kinetic mechanisms for clinical or research purposes. Recently, magnetic resonance imaging (MRI) has gradually replaced computed tomography (CT) to provide soft tissue morphological imaging and attenuation correction in the hybrid imaging technology of PET-MRI. With the advancement of hardware and electronics, time-of-flight PET systems can obtain images with higher resolution and reduced noisy artifacts and research efforts to strive for a faster timing resolution are ongoing. In conjunction with the hardware progress, compatible mathematical algorithms are required. Specifically, our efforts in the development of MR compatible PET inserts and novel mathematical algorithms will be addressed in detail.