

Departments of Physics Colloquium

Multimodal Structural and Functional Imaging of the Retina

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Friday, October 2, 2015

1:30 – 2:30 PM

Venue: OE 134, MMC

Abstract: Optical coherence tomography (OCT) and photoacoustic microscopy (PAM) are two high resolution optical imaging modalities that can provide three-dimensional information of biological tissues. Based on different contrast mechanisms these two imaging technologies can reveal complementary features of the retina. By combing OCT and PAM we can achieve simultaneous multimodal imaging and provide more comprehensive structural and functional information of the retina. This talk will cover the principles of OCT and PAM, the integration of PAM with OCT and auto-fluorescence for multimodal imaging. This talk will also cover the latest progress of visible-light OCT for imaging the functions of photoreceptors of the retina.



Biography: Professor Shuliang Jiao received his Ph.D from the department of Biomedical Engineering of Texas A&M University in 2003. He is currently an associate professor in the Department of Biomedical Engineering, Florida International University. Before join FIU, Dr. Jiao was with University of Southern California as an associate professor and University of Miami as an assistant professor. His research interest is mainly focused on the development of innovative technologies for imaging and treatment of eye diseases. His current research includes the technological development and application of Photoacoustic Microscopy, Optical Coherence Tomography, and Multimodal Functional Imaging for the early diagnosis of major blinding diseases like age related macular degeneration, diabetic retinopathy, and glaucoma.

The event is free and open to the public.

Future seminars can be found at <http://physics.fiu.edu/seminars/>