FIU Engineering & Computing
Biomedical Engineering

Wallace H. Coulter Foundation
Biomedical Engineering Seminar Series

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ENGINEERING APPROACHES TO INCREASE THE ACCESSIBILITY OF MAGNETIC RESONANCE IMAGING AND SPECTROSCOPY

ABSTRACT: With the immense power of Magnetic Resonance Imaging and Spectroscopy (MRI/S) comes great complexity, expense, and commensurate engineering challenges to increase the accessibility and approachability of the modality. Low-field, less expensive, more accessible scanners require tailored hardware solutions to increase the sensitivity. On the other end of the spectrum, the sensitivity gains of using high fields are proving extremely challenging to access for both imaging and spectroscopy, also requiring engineering solutions to acquire quality, homogeneous images and enable broadband spectroscopy. The complexity of basic image quantification can even be a deterrent to the translation of new and exciting techniques to the clinic, requiring big-data approaches to quantitative MRI that allow measurement of multiple tissue properties in a single, time-efficient acquisition. This work will present a variety of applications in which engineering approaches are continuing to enable increasing access to the enormous potential of Magnetic Resonance Imaging and Spectroscopy.

FRIDAY, SEPTEMBER 24 / 9:00 AM

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Through the generous support of the Wallace H. Coulter Foundation, the Department of Biomedical Engineering facilitates weekly lectures each year during academic terms. Experts in all areas of Biomedical Engineering are invited to provide a research seminar and to meet with faculty and students to discuss the latest developments and research in Biomedical Engineering.

Friday, September 24, 2021
9:00AM-10:00AM | https://bme.fiu.edu/seminars