

Research Centers in Minority Institutions (UTSA)
Institute for Integration of Medicine and Science (UTHSCSA) &
UTSA-UTHSCSA Joint Graduate Program in Biomedical Engineering
invite you to attend

Seminars in Translational Research

"Building the Capacity for Translational Research"

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Professor of Biomedical Engineering
Washington University in St. Louis
St. Louis, MO

Computational Methods for X-ray Phase-Contrast Imaging

X-ray phase-contrast imaging methods have dramatic advantages over conventional X-ray imaging methods and are being actively developed for a variety of important biomedical imaging and materials testing applications. These methods exploit the fact that, at diagnostic X-ray energies, variations in the real component of the refractive index of soft tissues are several orders of magnitude larger than variations in the imaginary component, or equivalently, the X-ray attenuation coefficient. Consequently, X-ray phase-contrast imaging may permit the visualization of tissues that have identical, or very similar, X-ray absorption properties. In this talk, we describe recent computational advancements related to image-formation for X-ray phase-contrast imaging and tomography. Topics covered include sparse-view image reconstruction and joint reconstruction of absorption and refractive properties. Applications to preclinical imaging applications are presented.

Friday, October 20, 2017

9:00—10:00 AM

**The University of Texas at San Antonio
Biotechnology, Sciences and Engineering Building (BSE)
Room 2.102**

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