



Baylor University

Department of Mathematics Colloquium

Professor Kui Ren

Department of Mathematics

University of Texas at Austin

■ **Topic:** Reconstruction Methods for Quantitative Photoacoustic Imaging

■ **Date & Time:** Thursday, October 28 @ 3:30 PM

■ **Place:** Room 207 Sid Richardson Building

■ **Refreshments:** 3:00 PM in Room 318 Sid Richardson

■ **Abstract:** The objective of quantitative photoacoustic imaging (qPAT) is to reconstruct absorption and scattering properties of a medium using interior data obtained from acoustic inversion. Mathematically qPAT is an inverse problem for the radiative transport equation or its diffusion approximation. We present some numerical reconstruction methods for the qPAT problem and discuss various related issues. Numerical simulations based on synthetic data will be shown.