

ECE 272/472 Audio Signal Processing Guest Lecture

Audio Analysis and Algorithm Development in MATLAB: A Streaming Approach

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9:00 AM – 10:15 AM
CSB 523

Abstract: MATLAB has exciting new capabilities for audio analysis and audio algorithm development. In this seminar you will learn how you can use the new **Audio System Toolbox** to rapidly implement streaming audio test benches in MATLAB and stream live audio to or from hardware. Learn how you can automatically create GUI's that let you interactively tune and listen at the same time. In addition, you can control parameters via MIDI and perform real time measurements and visualizations. We will look at a number of exciting algorithm demos including filter design, pitch shifting, physical effects modeling, and more. When you are done, export your algorithm to a VST plugin to be used in any Digital Audio Workstation software!

This is a hands-on seminar. Bring your laptop with Matlab Audio System Toolbox installed!

UR Students may download the entire site license suite for installation on their personal computers for FREE – Head to <http://tech.rochester.edu/software/matlab/> for details.

NOTE: Users with existing MATLAB installations will need to update to 2016a release in order to access Audio System Toolbox – it did not exist in prior releases. Anyone already running 2016a stand-alone should be able to log into their MathWorks account and simply add the product to their existing install. Users of network-concurrent installations will need to speak with their license server administrator.

Installation help is available weekdays 8:30 AM – to 8:00 PM Eastern time at 508.647.7000 – press 3, then press 1 or support@mathworks.com