

AbstractID: 14383 Title: Electronic Ultrasound System Testing Devices

Abstract for 2010 AAPM Talk

Modern technologically intensive diagnostic ultrasound systems are increasingly being used by physicians as a quantitative tool to diagnose disease processes at early and early stages of development. Physicians rely on the accuracy and quality of the clinical data derived from these ultrasound systems. Consequently these systems must be periodically assessed by medical physicists to insure they are operating according to factory specifications. A quantitative and objective electronic test instrument, FirstAssist, is now commercially available that will allow this operational verification.

This lecture and hands-on session will focus on the functional theory of FirstAssist and the operation of the device will be demonstrated on a modern ultrasound system.

Learning Objectives:

- 1) Understand the technology behind modern ultrasound systems
- 2) Understand the relevant clinical performance data delivered
- 3) Understand how to objectively test the performance of modern ultrasound systems using a novel and new electronic test device