

AAPM-COMP Special Symposium

**Airport Security Imaging Systems: Design, Dose, Risks, and Quality**

Co-Chairs: Joel E. Gray, Ph.D., and Palmer G. Steward, Ph.D.

Wednesday, August 3, 2011

At the  
2011 Joint Meeting of  
American Association of Medical Physicists  
And  
Canadian Organization of Medical Physicists  
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Imaging at ports of entry into the United States has become ubiquitous—cargo scanners at seaports; CT luggage scanners, x-ray backscatter whole-body scanners, and millimeter wave imaging systems at airports. The use of x-ray backscatter scanners has become quite controversial in that hundreds millions to over a billion of people will be exposed to very low levels of radiation, perhaps many times each year, in the U.S. alone.

This special symposium has been developed for the medical physics community in order to provide technical information about these scanners and the risk of exposing large numbers of airline staff and passengers, including pregnant women and children, to ionizing or electromagnetic radiation. Since the primary purpose of these systems is to provide a security tool, one must also consider the quality of the images produced and the ability to detect contraband material.

Four speakers, experts in their respective fields, have been invited to provide insight into these systems and associated risks. The speakers include:

John E. Moulder, Ph.D., Professor and Director of Radiation Biology, Medical College of Wisconsin.

Topic: Risks of Exposure to Ionizing and Millimeter Radiation from Airport Security Scanners

Daniel Kassiday, Center for Devices and Radiological Health, U.S. Food and Drug Administration

Topic: X-Ray Scanner Design, Image Quality, Measurements and Regulatory Issues

To Be Announced

Topic: Millimeter Wave Scanner Design, Image Quality, Measurements, and Regulatory Issues

Jill Seagraves, Health and Safety Manager, Transportation Security Agency  
Topic: Image Quality Differences of X-Ray and Millimeter Wave  
Scanners, and Transportation Security Administration's Quality and  
Safety Program