



**2008 - 2009**



**MATHEMATICS COLLOQUIUM SERIES  
UNIVERSITY OF CENTRAL FLORIDA**

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**Dr. Robert R. Muise  
Senior Staff Engineer  
Lockheed Martin  
Missiles and Fire Control**

will speak on

**A Compressive Imaging Approach for Tracking Objects in Multiplexed Data**

**ABSTRACT:** Compressive Imaging is a technology whereby the traditional notions of sampling are redefined for sampling data/images which have an underlying intrinsic structure. Shannon's sampling theorem imply gathering data at a rate necessary to reconstruct any arbitrary function or image. If one relaxes this assumption and we discuss reconstructing functions/images with a certain structure (i.e. compressible images), the sampling requirements are drastically reduced. The implications for improving the performance of traditional sensors/cameras could be dramatic. We will present two sensing models which apply compressive imaging to dramatically increase the performance of current sensor technology for tracking moving objects in video data.

**DATE:** Thursday, January 22, 2009

**TIME:** 11:30am – 12:30pm

**PLACE:** MAP 318

**Refreshments will be served.**