



Colloquium

Wednesday December 13, 2006

12:30pm Room 08-2130

**“CHARACTERIZATION OF HIGH-DIMENSIONAL
SPECTRAL IMAGE DATA: HOW DO I GET MY
IMAGE TO TELL ME HOW TO PROCESS IT?”**

**Dave Messinger
RIT**

Airborne hyperspectral imaging is the process of sampling the reflected or emitted spectrum of surface points in hundreds of spectral channels for tens of thousands of pixels. Two open questions to the hyperspectral remote sensing community are 1) can a better model of the data be used to improve exploitation (e.g., target detection) performance, and 2) is there some quantitative measure of "complexity" of a particular image that will indicate the best way to exploit that image? A review of the data and methods of characterization will be presented, as well as examples of the variability in exploitation method performance across common targets and scenes. New ideas for the characterization of the data will be presented with the goal of stimulating ideas to answer the questions presented above.

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School of Mathematical Sciences Colloquium Series