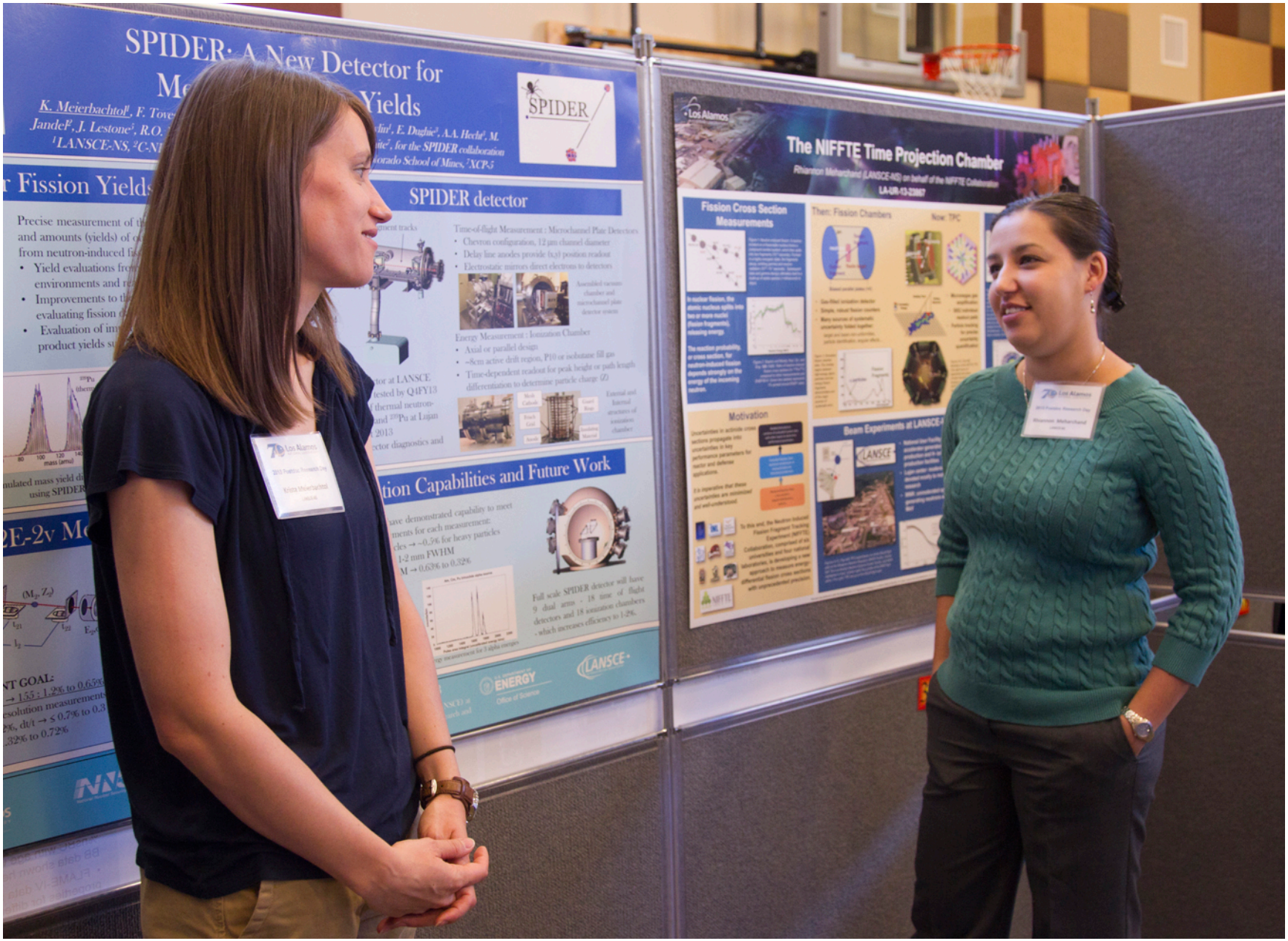
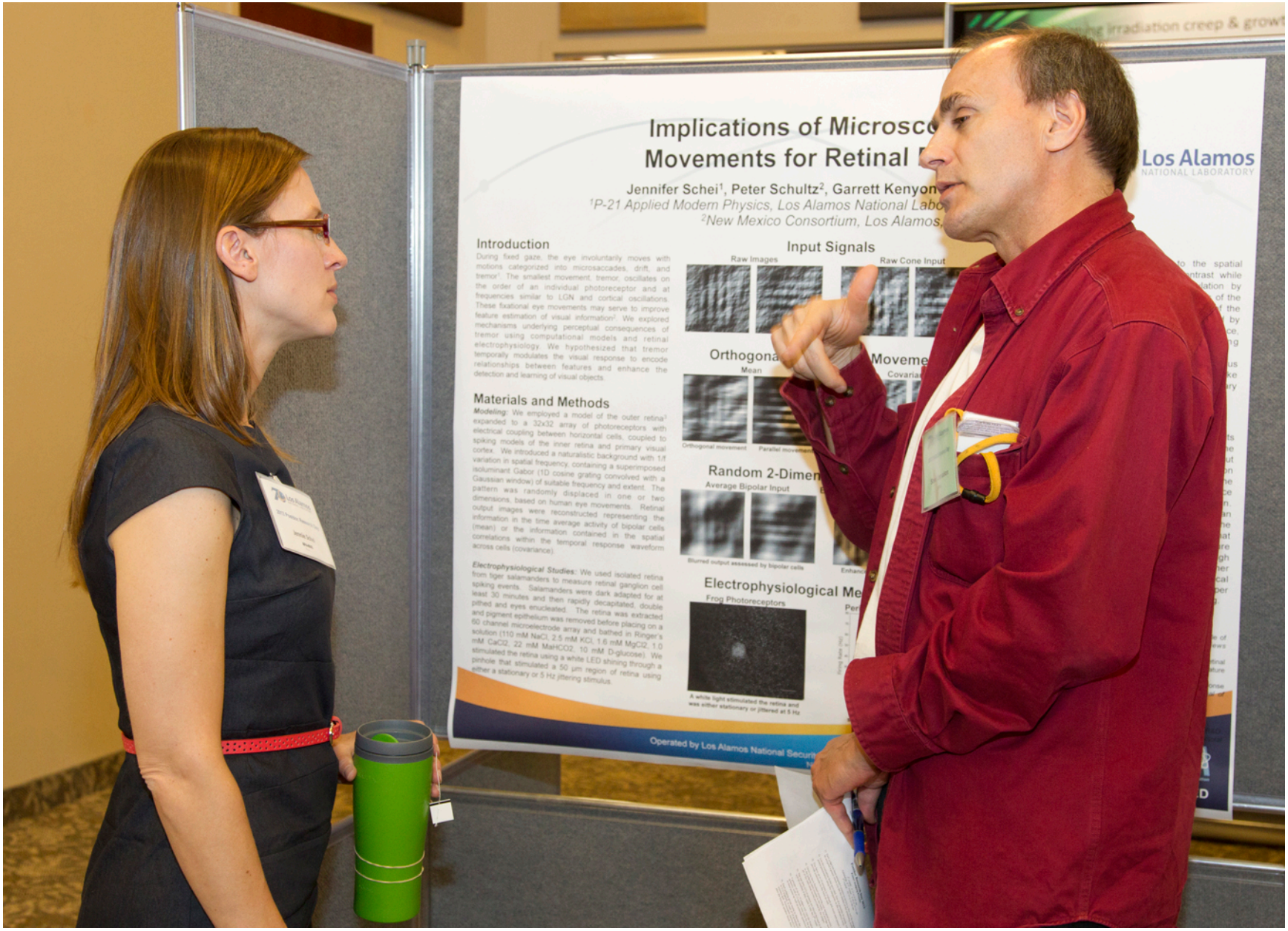
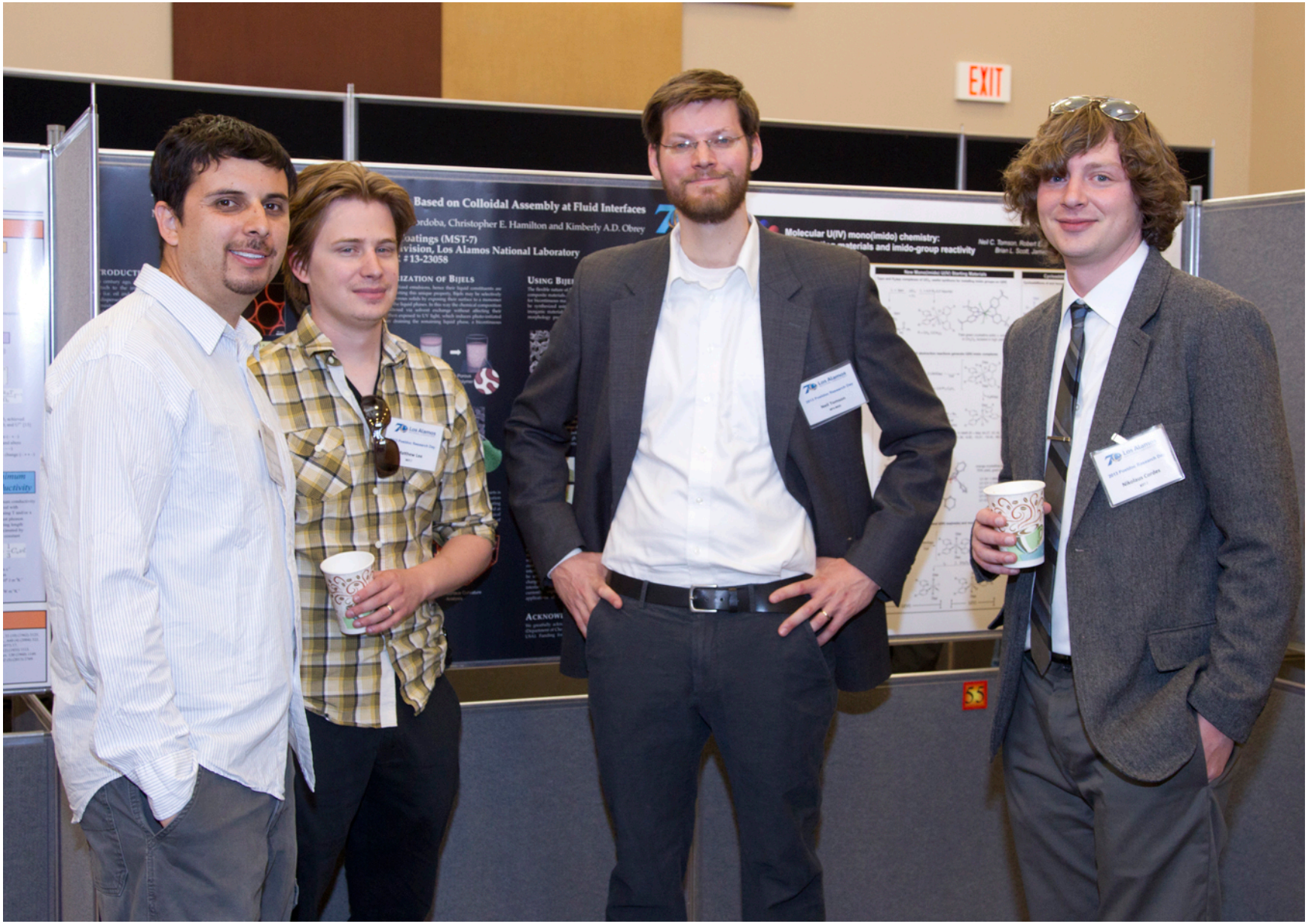
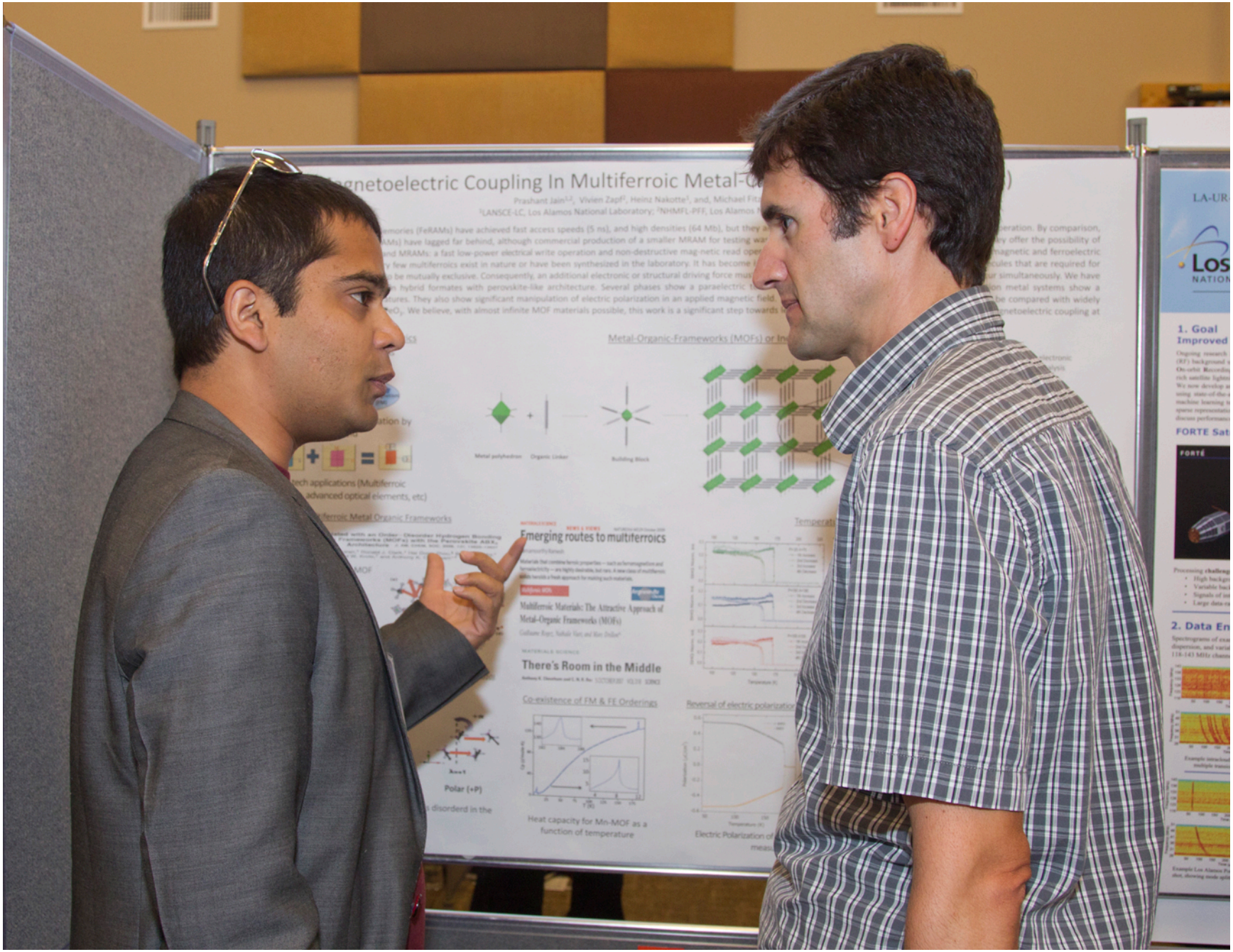
ChemCam: Chemistry and Camera
ock surface alteration on Earth and Mars as
ChemCam
Nina Lanza (ISR-2, nlanza@lanl.gov), Roger Wiens (ISR-2), and Sam Clegg (C-PCS)
What is LIBS?
Earth
Principal Component Analysis (PCA):
A measure of spectral similarity
- Reprojects data along axes of greatest variation
- Location in scores space related to composition
What is the LIBS signature of a coating?
Future work:
Reid Priedhorsky (D-4 / CNLS)
Aron Culotta (N.E. Illinois University)
Sara Del Valle (D-4)
Armand Dichosa
85


SPIDER: A New Detector for
Yields
SPIDER
SPIDER detector
Time-of-flight Measurement : Microchannel Plate Detectors
Energy Measurement : Ionization Chamber
Capabilities and Future Work
Full scale SPIDER detector will have 9 dual arms - 18 time of flight detectors and 18 ionization chambers - which increases efficiency to 1-2%.
ENERGY
Office of Science
LANSCE
Los Alamos
The NIFFTE Time Projection Chamber
Fission Cross Section Measurements
Then: Fission Chambers
Now: TPC
Motivation
Beam Experiments at LANSCE
LANSCE


Los Alamos
NATIONAL LABORATORY
Jennifer Schei[1], Peter Schultz[2], Garrett Kenyon
[1]P-21 Applied Modern Physics, Los Alamos National Labo
[2]New Mexico Consortium, Los Alamos,
Introduction
Materials and Methods
Input Signals
Raw Images
Raw Cone Input
Mean
Random 2-Dimen
Average Bipolar Input
Electrophysiological Me
Frog Photoreceptors
Operated by Los Alamos National Securi


EXIT
Based on Colloidal Assembly at Fluid Interfaces
Molecular U(IV) mono(imido) chemistry:


Emerging routes to multiferroics
Multiferroic Materials: The Attractive Approach of Metal-Organic Frameworks (MOFs)
There's Room in the Middle
Co-existence of FM & FE Orderings
Heat capacity for Mn-MOF as a function of temperature
Polar (+P)
1. Goal
Improved
FORTE Sat

DELL

Roland