

## Information Science and Technology Seminar Series

Reid Porter

Los Alamos National Laboratory

### "Statistics, Semantics, Inference and Learning: How to Use the Force"

Wednesday, February 15, 2012

3:00 - 4:00 PM

TA-3, Bldg. 1690, Room 102 (CNLS Conference Room)



**Abstract:** Over the past ten years there has been a convergence of tools and techniques for data exploitation and a force has been suggested (okay... a story) that ties many traditionally separate fields of research together. This story has now been told multiple times, by multiple researchers, and links graphical models and machine learning, logic-based AI and neural networks, and (with a little stretch) knowledge management and signal processing.

This story has helped me to approach problems (and people) in different areas of data exploitation, and provides (at the very least) a common definition for the four most overloaded words in data exploitation: statistics, semantics, inference and learning. In this talk I will give my own version of the story.

Experts in specific tools and techniques who are looking to understand their tools better may be disappointed with the level of technical detail. But, if you are interested to hear how large volumes of the data exploitation literature may be peripherally related to your problem, then this is the talk for you!

**Biography:** Reid Porter is a research scientist in ISR-3. He has a PhD in Electrical Engineering and pursues research interests in machine learning, image processing and computer architecture. He came to the lab in 1999 as a graduate research assistant and found an inspirational and supportive data exploitation team which made it impossible for him to leave.