

STATISTICS COLLOQUIUM

WEDNESDAY, DECEMBER 13, 2006

TALK: 4:00 PM — SCIENCE CENTER RM. 705

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“Information extraction from large scale sensor networks”

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ABSTRACT

Sensor network data is rich in spatio-temporal information but in large scale networks high data dimension hinders extraction of this information. In this talk we will describe an approach to information extraction from sensor network data that is based on distributed dimensionality reduction. We will illustrate our approach for several networking applications including: cooperative self-localization; distributed target tracking; and anomaly detection. The methods have been applied to data collected from a Crossbow Mica 2 sensor network and the Abilene Observatory.