

Stanford University
Department of Statistics

DEPARTMENTAL SEMINAR

4:30pm, Tuesday, July 17, 2018
Sloan Mathematics Center Room 380C

Refreshments served at 4pm in Sequoia Lounge.

Speaker: Deanna Needle, *University of California, Los Angeles*

Title: **Simple Classification from Binary Data**

Abstract:

Binary, or one-bit, representations of data arise naturally in many applications, and are appealing in both hardware implementations and algorithm design. In this talk, we provide a brief background to sparsity and 1-bit measurements, and then present new results on the problem of data classification from binary data that proposes a framework with low computation and resource costs. We illustrate the utility of the proposed approach through stylized and realistic numerical experiments, provide a theoretical analysis for a simple case, and discuss extensions including a hierarchical approach.