



The Math/Stats Colloquium
Department of Mathematics and Statistics
San José State University



Deanna Needell
UCLA (visiting MSRI)

Simple Classification using Binary Data

SEPTEMBER 20, 2017, MH320

Abstract: (Joint with Rayan Saab and Tina Woolf) 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 future directions.

Background: Some notions from analysis and probability will be used, but the talk should be accessible to beginning mathematicians.

About the speaker: Deanna Needell earned her PhD from UC Davis and is currently a professor of mathematics at UCLA. Her awards include the IEEE Best Young Author award, a Sloan fellowship, NSF CAREER and NSF BIGDATA awards, and the 2016 IMA prize. Her research interests include compressed sensing, randomized algorithms, functional analysis, probability, and statistics.

SNACKS IN MH331B AT 2:30 PM

TALK STARTS AT 3:00 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>