

Modern Tools in Statistics and Applications

JUNE 1,
2018

1 PM - 4 PM

MSB 1147

ABOUT THE RESEARCH TRAINING GROUP (RTG)

Novel data types arising in modern data analysis include matrices, functions, trees, and graphs. The geometry and computation in their analysis is challenging, but of great importance. This group aims to raise awareness surrounding these topics, train students in their use, and provide resources to the campus.

The Research Training Group (RTG) at the Department of Statistics is funded by the National Science Foundation (NSF) grant.



FURTHER INFORMATION

For details of previous and current RTG projects, please visit our website:

<http://www.stat.ucdavis.edu/NSF-RTG>

About the Speakers

We are graduate students in the Statistics Department in UC Davis, in the RTG group. These short introductory talks are related to our interests and research.



Introduction

The Statistics Department at UC Davis invites you to the two day event "Modern Tools in Statistics and Application."

Current PhD students in the statistics department will present a series of topics.

Talks will cover both modern and classical methods, and are designed to be :

- Practical
- Approachable
- Concise

The event is open to everyone. Graduate students from other departments are especially welcome. Feel free to stay for all of the topics or just drop in for a select few. We welcome you and hope to see you there!

SCHEDULE

1:00 PM **The LASSO or : How I learned to Stop Worrying and Love L1-regularization**

Overview of regularization for regression models focusing on the LASSO and its variants.

ANDREW BLANDINO

1:30 PM **The Kernel Trick and its Applications**

Using basic tools to extend traditional linear methods into the non-linear setting

BENJAMIN ROYCRAFT

2:00 PM **Variable selection in Ultra-high Dimensions**

An overview of recent advances in ultra-high dimensional variable selection with application to microarray data will be presented.

JAMSHID NAMDARI

2:30 PM

Break (15 minutes)

2:45 PM **Overview of Bootstrapping : properties and variations**

A brief overview of the bootstrap methodology, its uses, theoretical properties, and some variations of the standard procedure.

DMITRIY IZYUMIN

3:15 PM **An Introduction to Functional Data Analysis**

With the advance of modern technology, functional data (data which are observed continuously or intermittently across several time points) are becoming more and more common. We will give a practical introduction on representing and handling functional data with an emphasis on application.

CODY CARROLL

