Statistical Machine Learning for High Dimensional Data

Date/Location: Friday June 1, 2018 at Kansas State University (Dickens Hall 207)

Instructors: Cen Wu (KSU), Guotao Chu (KSU) and Fei Zhou (KSU).

Target Audience: K-State faculty and affiliated researchers, including collaborators, graduate students and postdocs with an interest in statistical machine learning for high dimensional data.

Cost: Free to K State affiliates. Funding for this workshop has been provided by Shell Oil.

Capacity: Limited to 20 participants. Please contact Dr. Cen Wu to RSVP (wucen@ksu.edu).

Notes:

- No prior experience programming with R is required. However, some familiarities with R will be very helpful.
- You will need a laptop with power cable all the time in the workshop.
- Please have R software installed on your laptop before the workshop. We will use R studio for illustration.
- No prior biology experience is required. We will focus on high dimensional cancer genomics data but the methodology can be readily extended to other domains.
- A list of required R packages will be emailed to all participants at least one day before the workshop.

Schedule:

Time	Topic
8:00 am	Introductions
9:00 am	Basics in R programming
10:00 am	Basic Statistics
11:00 am	Statistical Machine Learning Basics I
12:00 pm	Lunch: on your own
1:00 pm	Statistical Machine Learning Basics II
2:00 pm	Network based Analysis for High-dimensional Data
3:00 pm	Interaction Pursuit in High-dimensional Data
4:00 pm	Q & A