

# Data and Models: Regressive Analytics July 8-12, 2019

Note: Topic order is subject to change

### Monday

9:00-10:30: Philosophy of Data and Models

10:30-11:30: Least Squares

11:30-Noon: Levenberg-Marquardt & Ridge Regression

Noon-1:00: Lunch

1:00-5:00: Lab Exercises

### **Tuesday**

9:00-10:00: Damped Least Squares Comparison 10:00-11:30: Least Squares with Constraints

11:30-Noon: Stochastic Inverse

Noon-1:00: Lunch

1:00-5:00: Lab Exercises

## Wednesday

9:00-10:30: Singular Value Decomposition 10:30-Noon: Random and Grid Search Methods

Noon-1:00: Lunch

1:00-5:00: Lab Exercises

#### **Thursday**

9:00-10:00: Simulated Annealing and Genetic Algorithms

10:00-Noon: Neural Networks

Noon-1:00: Lunch

1:00-5:00: Lab Exercises

## **Friday**

9:00-10:00: Experimental Design

10:00-11:00: Parameter Error Estimates 11:00-Noon: Large Inverse Problems

Noon-1:00: Lunch

1:00-5:00: Lab Exercises