Data and Models: Regressive Analytics
July 10-14, 2017

*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