PREDICTION OF COMPLEX TRAITS - Labs

Gustavo de los Campos Epidemiology & Biostatistics, Statistics, Michigan State University USA SYLLABUS OF COURSE AT UNIVERSITY OF PADOVA July 3-7 2017

Labs last about 3 hours in each of 5 days

Prediction of complex traits using linear models: tradeoffs between goodness of fit and model complexity:

- Day 1: Ordinary least squares
- Day 2: Penalized Regressions
- Day 3: Bayesian Models

Semi-parametric methods

Day 4: Kernel Methods

Departures from the standard additive models

• Day 5: GxE and Modeling effects in heterogeneous populations