



PMED Program Transition Workshop
May 20-21, 2019
SCHEDULE

Monday, May 20th

SAS Hall Room 1102, North Carolina State University

Theme 1 (Tumor Heterogeneity)

9:00-9:15

“Intro and Overview on Tumor Heterogeneity Working Group”

Kevin Flores, NCSU

John Nardini, SAMSI and NCSU

9:15-9:45

“Virtual Tumor Populations from a Randomized Reaction-Diffusion Model”

Nick Henscheid, University of Arizona

9:45-10:15

“Nonlinear Mixed Effects Models Applied to Tumor Heterogeneity”

Rebecca Everett, NCSU

10:15-10:30

Break

10:30-10:45

“Creating Virtual Populations for Modeling Tumor Heterogeneity”

John Nardini, SAMSI and NCSU

10:45-11:15

“Applications of Machine Learning to Heterogeneous Population Data”

John Lagergren, NCSU

11:15-11:45

“Non-Parametric Techniques for Estimating Tumor Heterogeneity”

Erica Rutter, NCSU

11:45-1:30

Lunch on Own

Theme 2 (Real World Challenges in Observational Data DTR Analyses)

1:30-1:45

“Intro and Overview on Theme 2”

Erica Moodie, McGill University

1:45-2:15

“Dynamic Treatment Regimes via Reward Ignorant Modeling”

Michael Wallace, University of Waterloo

2:15-2:45

“Using Inverse Conditional Probability Weights to Adjust for Unmeasured Cluster-Specific Confounding in Clustered Data”

Zhulin He, Iowa State University

2:45-3:15

“Estimation and Optimization of Composite Outcomes”

Daniel Lockett, UNC at Chapel Hill

3:15-3:45

Break

Theme 3 (Observational Microbiome)

- 3:45-4:00 *“Introduction to the Observational Microbiome Working Group Session”*
Li Ma, Duke University
- 4:00-4:30 *“Network Methods for Integrating Compositional Microbiome Data with Machine Learning”*
Andrew Hinton, UNC Chapel Hill
- 4:30-5:00 *“Bayesian Graphical Compositional Regression for Microbiome Data”*
Jialiang Mao, Duke University
- 5:00-5:30 *“MIMIX: a Bayesian Mixed-Effects Model for Microbiome Data from Designed Experiments”*
Brian Reich, NC State University
- 5:45 Return to Hotel

Tuesday May 21st

SAS Hall Room 1102, North Carolina State University

- 9:15-10:15 Plenary Talk 1:
“A Bayesian Model for Joint Longitudinal and Survival Outcomes in the Presence of Subpopulation Heterogeneity”
Elizabeth Slate, Florida State University
- 10:15-10:30 Break
- 10:30-11:30 Plenary Talk 2:
“Some Recent Advances in Precision Medicine and Machine Learning”
Michael Kosorok, UNC Chapel Hill
- 11:30-12:30 Plenary Talk 3:
“Machine Learning Methods to Learn Improved Electrophysiological Biomarkers in Clinical Trials”
David Carlson, Duke University
- 12:30 Adjourn
- 1:00 Shuttle to RDU Airport