

NIMBioS Tutorial: Uncertainty Quantification for Biological Models, June 26-28, 2017

All sessions will be held in NIMBioS 205 & 206

Monday morning:

8:30 - 9:00 Breakfast, NIMBioS Breakroom (Room 104)
9:00 - 9:20 Introduction to NIMBioS and all Instructors (Lenhart)
9:20 - 9:40 Overview and goals of the UQ tutorial (R. Smith)
9:40 - 10:40 Background, motivation, and tools of the trade (C. Webster)
10:40 - 11:00 **BREAK**
11:00 - 12:00 Uncertainty representation and reduction (C. Webster and R. Smith)
12:00 - 12:45 “Hands on” computing session (C. Webster and R. Smith)
12:45 - 2:00 **LUNCH**

Monday afternoon:

2:00 - 2:50 Sampling-based local and global sensitivity analysis (M. Hyman)
2:50 - 3:20 “Hands on” computing session (M. Hyman)
3:20 - 3:40 **BREAK**
3:40 - 4:30 Sampling-based local and global sensitivity analysis (M. Hyman)
4:30 - 5:15 “Hands on” computing session (M. Hyman)
5:15 Reception, NIMBioS Breakroom (Room 104)

Tuesday morning:

8:30 - 9:00 Breakfast, NIMBioS Breakroom (Room 104)
9:00 - 9:50 Statistical analysis of models and experimental data (B. Fitzpatrick)
9:50 - 10:30 “Hands on” computing session (B. Fitzpatrick)
10:30 - 10:45 **BREAK**
10:45 - 11:35 Model identifiability and predictability (M. Eisenberg)
11:35 - 12:15 “Hands on” computing session (M. Eisenberg)
12:15 - 1:30 **LUNCH**

Tuesday afternoon:

1:30 - 1:45 Group Photos
1:45 - 2:35 Model selection and calibration (M. Eisenberg)
2:35 - 3:15 “Hands on” computing session (M. Eisenberg)
3:15 - 3:30 **BREAK**
3:30 - 4:20 Parameter estimation and Bayesian inference (R. Smith)
4:20 - 5:00 “Hands on” computing session (R. Smith)

Wednesday morning:

8:30 - 9:00 Breakfast, NIMBioS Breakroom (Room 104)
9:00 - 9:30 Sampling-based uncertainty propagation and uncertainty quantification (R. Smith)
9:30 - 10:00 “Hands on” computing session (R. Smith)
10:00 - 10:15 **BREAK**
10:15 - 11:15 Polynomial-based uncertainty propagation and quantification (C. Webster)
11:15 - 12:15 “Hands on” computing session (C. Webster)
12:15 **FINISH & LUNCH**