

SAMSI/CRSC Undergraduate Workshop

May 21 - May 26, 2006

www.ncsu.edu/crsc/ugw06

Sunday, May 21

7:00 Welcoming Reception in Sullivan Hall

Monday, May 22

8:30 Meet participants at Sullivan Hall. Transport to SAMSI.

9:10 Introduction to SAMSI, followed by presentations from current SAMSI programs.

9:15 National Defense and Homeland Security (ANJELA GOVAN)

10:00 Financial Mathematics (DR. JESUS RODRIGUEZ & DOUG VESTAL)

10:45 *Break*

11:00 Astrostatistics (FLOYD BULLARD)

11:45 *Lunch* at SAMSI

12:30 Vans transport participants to Harrelson Hall.

1:15 Introduction and Background (DR. RALPH SMITH)

1:45 Introduction to the Forward Problem: Solving the Harmonic Oscillator System
(DR. SAVA DEDIU)

2:45 *Break-Refreshments/Drinks available in HA 243*

3:00 Brief Introduction to the Computing System and MATLAB (DOUG VESTAL)

4:30 Vans take participants to Lake Crabtree

5:00 Dinner at Lake Crabtree

Tuesday, May 23

9:00 Linear Inverse Problems: A MATLAB Tutorial. (JENNIFER SLOAN)

10:45 *Break-Refreshments/Drinks available in HA 243*

11:00 Basic Statistical Concepts and Some Probability Essentials (SHENEK HEYWARD)

12:15 *Lunch*

1:15 Introduction to Statistical Inference (FLOYD BULLARD)

2:45 *Break-Refreshments/Drinks available in HA 243*

3:15 Statistical View of Linear Least Squares: A MATLAB Tutorial. (JOYEE GHOSH)

Wednesday, May 24

8:45 Vans transport participants from Sullivan Hall to Centennial Campus

9:00 Rotating Sessions

- *Vibrating beam* Data Collection at CRSC Laboratory. (JOHN DAVID AND DR. RALPH SMITH)
- Graduate School Panel
 - DR. KIM WEEMS, STATISTICS DEPARTMENT, NCSU
 - DR. ERNIE STITZINGER, MATHEMATICS DEPARTMENT, NCSU
- Career Panel
 - DR. KEVIN ANSTROM, DUKE CLINICAL RESEARCH INSTITUTE
 - DR. EMILY LADA, SAS
 - DR. LAURA POTTER, GLAXOSMITHKLINE

12:00 *Lunch*

1:00 Reflection on the Data Collection and Modeling Experiences (DR. LISA DENOGEAN & DR. MOUSTAPHA PEMY)

2:15 *Break-Refreshments/Drinks available in HA 243*

2:30 Solving the Vibrating Beam: Inverse Problem (ARTHUR SINKO)

3:00 Solving the Vibrating Beam: Optimization (ANJELA GOVAN)

4:00 Teams Work on Inverse Problem (ALL)

Thursday, May 25

9:00 Statistical Analysis for the Vibrating Beam Inverse Problem (SE HEE KIM & LINGSONG ZHANG)

10:00 *Break-Refreshments/Drinks available in HA 243*

10:15 Alternative Beam Model (DR. RALPH SMITH)

11:15 Teams Work on Inverse Problem (ALL)

12:30 *Lunch*

1:30 What could we do better? Alternative models/statistical methods (DR. LISA DENOGEAN & DR. CURTIS STORLIE)

2:30 *Break-Refreshments/Drinks available in HA 243*

3:00 Teams Work on Inverse Problem; Begin to Prepare Reports (ALL)

5:00 Participants Return to Sullivan Hall; Get Dinner

6:30 Bowling

Friday, May 26

9:00 Presentations and Discussion (ALL)

10:30 *Break-Refreshments/Drinks available in HA 243*

10:45 Presentations and Discussion(ALL)

11:45 Closing Remarks & Workshop Evaluation (DR. RALPH SMITH)

12:00 *Lunch*

1:00 Participants Depart for Home