



**24<sup>th</sup> Industrial Mathematical and Statistical Modeling Workshop**  
**July 15-25, 2018**  
**SCHEDULE**

**Sunday, July 15<sup>th</sup>**

[Talley Student Center](#); Rm 3222; NC State University

5:00-7:00pm      Welcome Reception Dinner

**Monday, July 16<sup>th</sup> : Building Software in Teams**

[SAS Hall](#); Rm 1102; NC State University

8:00-9:00am      Group Mini Breakfast (Rm 4104, SAS)

9:00-10:30am     Interactive Session (Rm 1102, SAS)

10:30-10:45am    BREAK

10:45am-12:00pm Interactive Session (Rm 1102, SAS)

12:00-1:00pm     Individual LUNCH

1:00-2:30pm      Interactive Session (Rm 1102, SAS)

2:30-3:00pm      BREAK

3:15-5:00pm      Interactive Session (Rm 1102, SAS)

5:00pm             Individual DINNER

**Monday, July 17<sup>th</sup> : Problem Presentations**

[SAS Hall](#); Rm 1102; NC State University

9:00-9:15am      Welcome to IMSM  
**Mansoor Haider**, SAMSI Assoc. Director

9:15-9:35am      *Computational Techniques to Enhance Laser-based Characterization of Thin Film Thermomechanical Properties*  
**Jordan Massad, Elizabeth M.C. Jones, and Michael L. Busse**, Sandia National Laboratories

9:35-9:55am      *Visualizing and Interpreting Machine Learning Models*  
**Agustin Calatroni** and **Petra LeBeau**, Rho, Inc.

9:55-10:15am     BREAK (Rm. 4104, SAS)

- 10:15-10:35am     *Estimation of Coastal Hydrodynamics with Machine Learning*  
**Ty Hesser**, US Army Corps of Engineers
- 10:35-10:55am     *Light Reflections*  
**John Peach**, MIT-LL
- 10:55-11:15am     *Identifying Precision Treatment for Rheumatoid Arthritis with Reinforcement Learning*  
**Grant Weller, Victoria Mansfield, and Yinglong Guo**, Savvysherpa
- 11:15-11:35am     *Hybrid Splicing of Multi-Scale Downscaler Air Quality Surfaces*  
**Elizabeth Mannshardt, Barron Henderson, and Brett Gantt**, EPA
- 11:35am             Group Photo
- 12:00-1:30pm       LUNCH (Rm. 4104, SAS)
- 1:30-2:30pm         **Mini Career Fair** (Rms. 4104 and 4201, SAS)
- 2:30-4:45pm         Working Sessions begin in assigned SAS rooms
- 4:45-4:50pm         Group meets in SAS Lobby
- 5:00-7:00pm         Group DINNER at Mitch's (2426 Hillsborough St, Raleigh, NC)

**Wednesday July 18<sup>th</sup>: Group Research**

[SAS Hall](#); NC State University

- 8:00-9:00am         Group Mini Breakfast (Rm. 4104)
- 9:00am-until         Working sessions (Individual LUNCH and DINNER)

**Thursday July 19<sup>th</sup>: Group Research**

[SAS Hall](#); NC State University

- 8:00-9:00am         Group Mini Breakfast (Rm. 4104)
- 9:00am-until         Working sessions (Individual LUNCH and DINNER)

**Friday July 20<sup>th</sup>: Group Research**

[SAS Hall](#); NC State University

- 8:00-9:00am         Group Mini Breakfast (Rm. 4104)
- 9:00am-5:00pm       Working sessions (Individual LUNCH)
- 5:00-7:00pm         Group DINNER - Mediterranean at Talley Student Union  
(3<sup>rd</sup> Floor Bistro, 2610 Cates Ave)

### **Saturday July 21st: Group Research**

[SAS Hall](#); NC State University

Working sessions as agreed upon by each group

### **Sunday July 22nd: Group Research**

[SAS Hall](#); NC State University

Working sessions as agreed upon by each group

### **Monday July 23rd: Group Research**

[SAS Hall](#); NC State University

8:00-9:00am            Group Mini Breakfast (Rm. 4104)

9:00am-until           Working sessions (Individual LUNCH and DINNER)

### **Tuesday July 24<sup>th</sup>: Group Research**

[SAS Hall](#); NC State University

8:00-9:00am            Group Mini Breakfast (Rm. 4104)

9:00am-until           Working sessions (Individual LUNCH and DINNER)

### **Wednesday July 25<sup>th</sup>: Group Presentations**

[SAS Hall](#); NC State University

8:00-9:00am            Group Mini Breakfast (Rm 4104, SAS)

***NOTE: Working sessions will continue until noon in SAS Hall. Room will be cleared and belongings will be moved to 200 Park Shops.***

12:00pm                Final Reports due (Individual LUNCH)

1:00-4:00pm            Final Presentations (200 Parks Shops – across Stinson Dr from SAS Hall; upstairs from Port City)

5:00-7:00pm            Group Farewell Dinner at Talley Student Union's Third Floor Bistro (2610 Cates Ave)

### **Thursday July 26<sup>th</sup>: Check Out**

7:00-8:00am            Check out. Return Room Key/Access Cards.

***NOTE: Each group must submit a report about their research problem and results. This report is required in order to receive reimbursement for their participation in the workshop.***