Summer School Program
Simulation of Complex Microstructure in Materials

May 19-24, 2013
Gainesville, FL

Sunday, May 19
6:00 – 8:00 pm Registration and Welcome (125 Rhines Hall)

Monday, May 20
8:00 – 8:30 Registration, 125 Rhines Hall
8:30 – 8:45 Welcome and Logistics (Susan Sinnott, Simon Phillpot)
8:45 – 9:30 Lecturer 1 (Donald Brenner, NCSU – Atomistic Simulations of Material Interfaces)
9:30 – 9:45 Break
9:45 – 10:30 Lecturer 1 (Part 2)
10:30 – 10:45 Break
10:45 – 11:30 Lecturer 2 (Roger de Souza, Aachen – Computational Studies of Complex Oxides for Energy Applications)
11:30 - 11:45 Break
11:45 – 12:30 Lecturer 2 (Part 2)
12:30 – 2:00 Lunch
2:00 – 2:30 Professional Development – Charge for developing research initiative (Simon Phillpot, Florida)
2:30 – 3:45 Student led working group (with faculty)
1/3 discussion lectures – developing questions
2/3 discussion of research of students
3:45 – 4:00 Break
4:00 – 4:40 Questions for Lecturers (1 and 2)
5:00 – 6:00 Meeting of the CAMS Advisory Board
Tuesday, May 21

8:45 – 9:30 Lecturer 3 (Krishna Rajan, Iowa State – Microstructure and Materials Informatics)

9:30 – 9:45 Break

9:45 – 10:30 Lecturer 3 (Part 2)

10:30 – 10:45 Break


11:30 – 11:45 Break

11:45 – 12:30 Lecturer 4 (Part 2)

12:30 – 2:00 Lunch

2:00 – 2:30 Professional Development – How to develop field and transition into a new field (Krishna Rajan, Iowa State)?

2:30 – 3:45 Student led working group (with faculty)
1/3 discussion lectures – developing questions
2/3 discussion of student research initiative

3:45 – 4:00 Break

4:00 – 4:45 Questions for Lecturers (3 and 4)
Wednesday, May 22

8:45 – 9:30  Lecturer 5 (Steve Plimpton, Sandia – Practical Aspects to Atomistic Simulations of Interfaces)

9:30 – 9:45  Break

9:45 – 10:30  Lecturer 5 (Part 2)

10:30 – 10:45  Break

10:45 – 11:30  Lecturer 6 (Blas Uberuaga, LANL – Modeling Grain Boundary-Defect Interactions in Ceramics)

11:30 - 11:45  Break

11:45 – 12:30  Lecturer 6 (Part 2)

12:30 – 2:00  Lunch

2:00 – 2:30  Professional Development – Ethics and Plagiarism/Working in Groups/Entrepreneurship (Erik Sander or Bill McElroy – Leadership Institute, Florida)

2:30 – 3:45  Student led working group (with faculty)
             1/3 discussion lectures – developing questions
             2/3 discussion of student research initiative

3:45 – 4:00  Break

4:00 – 4:45  Questions for Lecturers (5 and 6)
Thursday, May 23

8:45 – 9:30  Lecturer 7 (*Mo Li, Georgia Tech, Modeling Amorphous Solids*)

9:30 – 9:45  Break

9:45 – 10:30 Lecturer 7 (Part 2)

10:30 – 10:45 Break

10:45 – 11:30 Lecturer 8 (*Anter El-Azab, Purdue – Phase Field Modeling of Complex Microstructure*)

11:30 - 11:45 Break

11:45 – 12:30 Lecturer 8 (Part 2)

12:30 – 2:00 Lunch and **Posters of Student Research (all School Participants)**
Judges - Roger deSouza, Steve Plimpton, Mo Li, Krishan Rajan

2:00 – 2:30 Professional Development – What is life like as a professor (*Izabela Szlufarska*)
and a national laboratory staff member (*Blas Uberuaga*)?

2:30 – 3:30 Student led working group (with faculty)
  1/3 discussion lectures – developing questions
  2/3 discussion of student research initiative

3:30 – 3:45 Questions for Lecturers (7-8)

3:45 – 6:00 Final preparations for student presentations (including dinner)

6:00 – Student Research Initiatives presented to Panel of Experts
  @ 20 minutes  ➔  8:15

  Awards for posters and initiatives
  Reception
Friday, May 24

8:15 – 9:00  Lecturer 9 (Muralikrishna Raju, Penn State - Applications of Molecular Dynamics, Metadynamics and Monte Carlo simulations using ReaxFF Reactive Force Fields to Aqueous Interfaces)

9:00 – 9:15  Break

9:15 – 10:00  Lecturer 10 (Susan Sinnott, Florida – Atomic Simulations of Heterogeneous Interfaces)

10:00 – 10:15  Break

10:15 – 11:00  Lecturer 10 (Part 2)

11:00 – 11:30  Student led working group (with faculty)
   Discussion lectures – develop questions

11:30- 12:15  Questions for Lecturers (9 and 10)

12:15-1:30  Lunch and Adjourn