

**2017 New England Regional Meeting Program**

**9-9:30 AM**:  Paino Lecture Hall (Beneski) - Coffee

**9:30-10 AM:** Paino Lecture Hall (Beneski) **-** Welcome and Introduction to ALPhA by Ashley Carter, Amherst College, ALPhA Board of Directors.  Brief introduction to ALPhA including information about the Beyond the First Year (BFY) lab conference, the ALPhA Immersion program, and our new Regional Conference program. Talk will also include information about what you will see in the day’s Workshop events, including electronic laboratory notebooks, interdisciplinary experiments, and incorporation of new computational guidelines.

**10-12:30 PM**:  **ALPhA SLAM**:  Paino Lecture Hall (Beneski) - This is a networking event. Each participant will be given 3.5 minutes to introduce themselves and answer one or more of the following questions: What improvements have you made to your Advanced Lab course? Are their experiments that you would like to do in the Advanced Lab, but are having trouble doing? What are you interested in learning more about at the conference? Would you like to be more involved in ALPhA? Projector will be available. Time for 1.5 minutes of questions at the end of each talk. Great time to take notes and follow up at lunch with anyone you would like to talk with further.

**12:30-1:30 PM: Lunch:** Power House

**1:30-3 PM**:  Biophysics Workshops and Lab Tours – Choose one (Various Locations)

* Brownian Motion – Learn how to make sample chambers with particles undergoing Brownian motion and image them under the microscope. Analyze the data with ImageJ and measure the diffusion coefficient or Boltzmann’s constant. (LIMIT 5)
* Image DNA with AFM – Learn how to make DNA samples and image them using a teaching AFM (ezAFM, Nanomagnetics). Analyze the data, and measure the persistence length and contour length of the DNA. (LIMIT 5)
* Tethered Particle Motion – Measure the motion of a particle attached to a sample chamber via a DNA molecule. Analyze this motion to measure the contour length of the DNA. (LIMIT 5)
* Amherst Advanced Lab Tour – Go on a tour of the laboratory equipment that is used in Amherst’s Advanced Lab class. See some of the experiments in action, compare notes, ask questions, and get ideas for your own course. (LIMIT 10)
* Amherst Advanced Demonstration Tour – Go on a tour of the demonstration equipment used in our courses beyond the first year. Ask questions and get ideas for demonstrations for your advanced courses. (LIMIT 10)

**3-4 PM:**  **Conference Talks -** Paino Lecture Hall (Beneski)

* **3-3:20 PM:**  Ernest Behringer. Eastern Michigan. Computing in the laboratory.
* **3:20-3:40 PM:**  Ben Zwickl. RIT. Transferring laboratory skills to the industrial workplace.
* **3:40-4 PM**:   Sean Robinson. MIT. Updates to the physics junior laboratory.

**4-6 PM:**  Power House - Reception, Drinks, and Facilitated Discussion