Fall Meeting

Chesapeake Section of the American Association of Physics Teachers



November 10, 2012 Radford University Radford, VA

Saturday Lunch Speaker

Aaron Titus, High Point University

"Physics on steroids—how to give your physics class a shot in the arm"

I like to define undergraduate research as asking interesting questions and finding answers to those questions. Video analysis is one of the most economical and flexible experimental techniques to enable students to do undergraduate research, starting with introductory physics. Particular features of Tracker--a free cross-platform, open-source video analysis application--allow students to easily change reference frames, compensate for panning and zooming of a camera, auto-track objects, and test a numerical model. Computational modeling, using tools such as Easy Java Simulations and VPython, allow introductory students to solve problems numerically so that they can compare predictions from theoretical models to experimental results. Student projects will be demonstrated, with an emphasis on the benefit of undergraduate research in the freshman and sophomore years. If you want to hook students on the excitement of independent discovery with a budget of \$300 or less (for a camera), then video analysis and computational modeling are for you.

Parking: http://www.radford.edu/content/it/home/business-services/parking.html/

Please park in Lots B, C, A or F for the meeting. No parking pass is needed after 4pm on Friday, or on Saturday. Enter the conjoined buildings Reed & Curie Halls through the campus side (south side) of Reed Hall. Handicapped parking available at the top of the hill next to McConnell Library; in Lot A next to Young Hall; and in Lot F. These are all located where you do not have to walk up/down hills to get to the Reed Hall entrance.

Fall Meeting

Friday night

7:15: Planetarium show "2012: Mayan Prophecies." Come see what all the fuss is—and is not!— about with December 21, 2012. This full-dome show is produced by the Houston Museum of Natural Science and tells the true purpose of the great Mayan temples, and explains their "long count" calendar that we've heard so much about.

Location: Curie Hall room 043, downstairs in Curie Hall.

8:15: Jack Brockway will lead a group to Radford University's Selu Observatory, weather permitting. More about the observatory may be found here: http://www.radford.edu/observatory/ Selu is located 20 minutes from campus.

Location: All who would like to go should meet in the small lobby on the first floor of Reed Hall, near the campus entrance to the building.

<u>Saturday—Everything in Reed Hall room 201.</u>

10:00am: Talks will start.

12noon: Lunch with our lunchtime speaker, Dr. Aaron Titus.

Talks will resume after our speaker.

CS-AAPT business meeting will follow the last talk on Saturday afternoon.

Please send your talk titles/abstracts to local organizer Brett Taylor, betaylor@radford.edu.

Costs (cash, or checks payable to CS-AAPT):

- \$10 meeting registration
- \$10 Saturday lunch
- We will have someone to collect your annual CS-AAPT dues (\$15 yearly) at the official meeting on Saturday.

Saturday lunch: There will be a sandwich bar with choice of one of two meat options, or a vegetarian sandwich option. Please send to Rhett Herman (rherman@radford.edu) by the end of the day on Tuesday November 6, your sandwich choice of one of the following:

- Turkey and provolone on wheat
- Chicken salad with croissant
- Vegetarian sub

Also, lettuce/tomato/mustard/mayo, dill pickles, chips, fruit, and ice tea/water. Plus cookies! © If you choose to pack/bring your lunch, that's also perfectly fine.

Questions? Contact local organizer Brett Taylor, <u>betaylor@radford.edu</u>.