

January 24, 2009 - FL-AAPT/PTRA Workshop
Analysis of Laboratory Data For Physical Science & Physics Teachers

The Florida Section of the American Association of Physics Teachers (AAPT) is offering a six-hour Physics Teaching Resource Agent (PTRA) Workshop on Analysis of Laboratory Data for Physical Science and Physics Teachers in Florida. See <http://www.flaapt.org/>

This is funded by an AAPT mini-grant, and the theme of the AAPT/PTRA workshop will be Modeling Instructional Approach with a Generic 4-Step procedure for analyzing student laboratory data.

During the workshop, participants will do several laboratory activities. For each activity participants will measure, graphically display, and analyze the data using a graphing calculator. Calculators will be provided; however, participants are welcome to bring their own. The goal for each laboratory activity is to arrive at a general equation that summarizes the relationship between the variables measured. A CD with Black Line Masters of each activity will be provided to participants along with access to electronic versions that teachers can modify for their unique situation. Sample laboratory activities using a constant speed tumble buggy will be included as time permits:

- *Measurement of Speed on a Smooth and Level Surface*
- *Comparison of Average Speed and Final Speed*
- *Measurement of Speed on an Inclined Plane (Average vs. Final Speed)*
- *Measurement of Acceleration due to Gravitational Force*
- *Comparing Linear Speed and Circular Speed*
- *Finding Speed & Velocity of a Car Traveling with Uniform Circular Motion*
- *Investigation of a Flashing Light*
- *The Mystery of Dark Matter*

These activities are representative of typical laboratory activities done in middle and high school classes, but the generic 4-step analysis can be used in many middle and high school laboratory activities.

The workshop will be held in Building I on the Northwest campus of **Santa Fe College in Gainesville**, 3000 NW 83rd Street on Saturday, January 24, 2009. Lunch (sandwich, chips, water, and cookie) will be provided. Workshop will begin at 9:00 AM and will conclude at 4:00 PM.

At the conclusion of the workshop, the following items will be provided to each participant:

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| <ul style="list-style-type: none">• CD with black line master of activities and other handouts used during workshop.• Constant Speed Buggy used in the laboratory activities above.• Free one year trial membership in FL-AAPT.• Free six-month trial membership in AAPT. | <ul style="list-style-type: none">• Physlets Book, Addison Wesley.• Ranking Tasks Book, Addison Wesley.• Role of the Laboratory Teacher Resource, AAPT Press.• Teaching Physics for the First Time Teacher Resource, AAPT Press.• The Mystery of Dark Matter, DVD and Teacher Resource, Perimeter Institute. |
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Due to limited funds, only 20 teachers can be accepted. To register for workshop, complete the application on <http://www.flaapt.org/> and mail to

Jane Nelson, President FL-AAPT
6871 SW 89th Way
Gainesville, FL 32608-9243

Directions and maps available at <http://admin.sfcc.edu/~information/maps/#>