



March 7, 2009 - MSTA AAPT/PTRA Motion
For Newer Physical Science & Physics Teachers

March 27&28, 2009 - MIAAPT AAPT/PTRA Waves Workshop
For Newer Physical Science & Physics Teachers

The Michigan Section of the American Association of Physics Teachers (MIAAPT) is offering two six-hour workshops. The first will be offered at the MSTA meeting in Detroit on Saturday March 7th. The second will be offered in Lansing at the MIAAPT conference on March 27th and 28th. These workshops are based on AAPT's Physics Teaching Resource Agent (PTRA) Workshops. The workshop leaders will be Alan Gibson, retired Rochester Adams High School and Nicole Murawski, Royal Oak High School. Both have been trained by AAPT/PTRA as workshop leaders.

These workshops are partially funded by an AAPT mini-grant and the MIAAPT. Some additional funding is available for teachers from districts defined as rural by the US DOE. Please check <http://nces.ed.gov/ccd/districtsearch/> to see if you qualify for funding from this source.

Instructional Approach will be inquiry based with an emphasis on activities that can be used in your classroom. During the workshop, participants will do several laboratory activities. For each activity participants will analyze the data using graphic, pictorial and mathematical models. The goal for each laboratory activity is to arrive at a general equation that summarizes the relationship between the variables measured. A CD of all activities will be provided to participants so that teachers can modify them for their unique situation. Lab activities may include:

MSTA Motion Workshop Mar 7th

- *Constant Velocity Car
- *Walk the Graph
- *Motion Diagrams
- *Ranking Task
- *Physlets and Simulations
- *ComPADRE and Web Resources
- *Mystery of Dark Matter
- *Motion Make and Takes

The workshop will be held in DaVinci room in the Detroit Marriott. Lunch (sandwich, chips, water, and cookie) will be provided. Workshop will begin at 8:00 AM and will conclude at 3:00 PM.

MIAAPT Waves Workshop Mar 27&28

- *Slinkies, Snakies and Ponds
- *Inverse Square Law and Pinhole Cameras
- *Color Addition/subtraction
- *Speed of Sound
- *Ranking Tasks, Physlets

Saturday 3/28 - ComPADRE with Dr. Bruce Mason, ComPADRE Principal Investigator

The room arrangements have not yet been completed for this workshop. We will have dinner together for those staying overnight in Lansing. Participants will attend the morning sessions of MIAAPT and participate in Dr. Mason's afternoon ComPADRE workshop.

These activities are representative of laboratory activities done in middle and high school classes.

At the conclusion of the each workshop, our intention is to provide the following items to each participant:

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| <ul style="list-style-type: none">• CD with activities and other handouts used during workshop.• Free one year membership in MIAAPT.• Free six-month trial membership in AAPT.• Physlets Book, Addison Wesley.• Ranking Tasks Book, Addison Wesley. | <ul style="list-style-type: none">• Role of the Laboratory Teacher Resource, AAPT Press.• Teaching Physics for the First Time Teacher Resource, AAPT Press.• Others not yet determined• The Mystery of Dark Matter, DVD and Teacher Resource, Perimeter Institute. |
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Due to limited funds and to the hands on nature of these workshops, only 24 teachers can be accepted. There will be waiting list if more than 24 teachers sign up in advance. Since we need to order materials in advance, we ask you to send a \$50 check to hold a spot in each workshop. The checks should be made out to the Michigan Section of AAPT. Your checks will be returned at the conclusion of each workshop; therefore we need a separate check for each workshop. Please put in the 'check notes' either MSTA or MIAAPT to identify the appropriate workshop. To register for workshops, complete the attached application/applications and mail to

Alan Gibson
1496 Rochingham Drive
Rochester Hills, MI 48309

NOTE: You must register for the MSTA meeting to attend the workshop on March 7th in Detroit. MIAAPT will provide free registration to each workshop participant for the waves workshop.

Directions and maps available for the MSTA Workshop at <http://www.msta-mich.org/conference/>

Directions and maps will be available for the MIAAPT Workshop at <http://www.miaapt.org/> in late Jan or Early Feb.